

UNIVERSITY OF STRATHCLYDE

DEPARTMENT OF MARKETING

Search Behaviour: An Analysis of Information Collection and Usage  
During the Decision Process

Keith P. Fletcher

A thesis for the Degree of Doctor of Philosophy

1986

I dedicate this thesis to my wife and my friends and colleagues  
who have suffered almost as much as myself during the last few  
years.

## Abstract

The purpose of this research was to investigate the nature of consumer decision making. It considered the purchase of a video cassette recorder and investigated whether the assumptions of a model based on satisficing behaviour could be justified. It considered the nature of search behaviour and evaluation during the decision process and the factors which might influence it.

The research therefore studied the stages of the decision process from the nature of Problem Recognition and Problem Classification, including the development of evoked sets during the decision process, the preference for and use of different information sources, the nature of search behaviour, the importance of choice criteria and the decision rules used while employing these choice criteria.

This was investigated using three separate but linked research approaches. A sample of the population in the West of Scotland was analysed to investigate differences between video owners and non video owners, while qualitative interviews were conducted to study the decision process itself. Conjoint Analysis was used to consider the relative importance of choice criteria.

The study confirmed the sequential nature of the decision process and found a phased sequence of choice and search. Despite the nature of the good (expensive and innovative) the decision was

generally considered of a low involvement nature. While the predictions of low involvement learning that a satisficing decision would be taken were found to be true our findings disagreed with the accepted theory on the use of information sources. It was also considered that it would be wrong to assume no cognitive processes were taking place as various choice heuristics were found which simplified the decision for the consumer.

### Acknowledgements

I would like to thank the many people who have been enormously helpful during the period of this research study and in the preparation of the thesis.

In particular I would like to thank my supervisor Professor Michael Baker for the encouragement he gave me, especially in the initial stages when supervision involved a 400 mile journey and an evenings intensive tutoring. My thanks also to Dr. Axel Johne for his participation during this stage and his intimate knowledge of suitable tutoring locations.

I owe a great debt to various colleagues who have provided inspiration, encouragement and feedback at critical stages of the research.

In particular I would like to acknowledge Dr. Douglas Leathar, Director of the Advertising Research Unit at Strathclyde University, for his general guidance on research methodology and specifically in the area of qualitative research and fractional factorials.

The patience of the Social Statistics Laboratory must be acknowledged especially the help of Ann Mair who guided me through the mysteries of both SPSS and SPSSX. Similarly Dr. Steven Tagg must be thanked for his help in setting up the Conjoint analysis package and for his guidance in its interpretation.

Finally I would like to thank the various commercial organisations for their co-operation, and the general public who kindly participated in the actual research. Without their participation and co-operation there could have been no research.

## CONTENTS

	<u>Page</u>
CHAPTER ONE	
INTRODUCTION	i
CHAPTER TWO	
CONSUMER DECISION MAKING	
RATIONALITY AND DECISION MAKING	10
Bounded Rationality	11
CONSUMER DECISION PROCESSES AS RATIONAL PROBLEM SOLVING	15
Involvement and decision making	17
Conclusion	25
GENERAL MODELS OF BUYER BEHAVIOUR	26
General Consumer Models	26
Nicosia Model	26
Engel Kollat and Blackwell model	30
Howard and Sheth theory of search	33
Bettman model	39
Conclusion to consumer section	41
GENERAL INDUSTRIAL MODELS	43
Webster and Wind model	43
Sheth model	49
Choffray and Lilien model	50
Baker model	54
Conclusion to industrial section	56
FAMILY MODELS	57
Power and Authority	59
Types of Family Authority relationships	59
Fisk model	63
Talcott Parsons Theory of Action	64
Pattern Variables	65
Granbois model	68
Sheth theory of Family Buying Decisions	71
Conclusion to family section	73

	<u>Page</u>
CONCLUSION TO GENERAL MODELS	74
SIMPLE PROCESS MODELS OF BUYER BEHAVIOUR	77
Consumer Decision Process Models	77
Industrial Decision Process Models	87
CONCLUSION TO CHAPTER	91
<b>CHAPTER THREE           SEARCH BEHAVIOUR AS AN ORGANISING PARADIGM</b>	
SEARCH AND SATISFICING BEHAVIOUR	94
PROBLEM RECOGNITION	97
Problem Classification and Buy Classes	102
Search Rules and Buy Classes	108
SEARCH BEHAVIOUR AND DECISION MAKING	114
External Search	114
Internal Search	119
STUDIES OF SEARCH BEHAVIOUR	126
Number of stores visited	126
Time	129
Planning	131
Number of Alternatives considered	132
Number of Attributes	134
Number of Sources	136
Types of Sources	138
Indexes of Search Behaviour	143
INFORMATION AND THE ROLE OF THE EVOKED SET IN EVALUATION	154
The role of the evoked set	155
Evaluative criteria and information requirements	158
The use of evaluative criteria	161
Nature of evaluative criteria	168
Classification of criteria	169



	<u>Page</u>
Image as a dimension	173
Price/Value dimension	175
Product dimension	177
Company dimension	178
Market dimension	179
 CONCLUSION TO CHAPTER	 180
 <b>CHAPTER FOUR ENVIRONMENTAL, SITUATIONAL AND INDIVIDUAL FACTORS INFLUENCING THE DECISION PROCESS</b>	
Environmental factors	184
Situational factors	186
Rental or Purchase	192
Individual factors	200
Beliefs/Knowledge	200
Confidence	207
Opinion Leadership	211
Risk Reception	216
Interpersonal Influence	224
Socio-Demographic	225
 CONCLUSION TO CHAPTER	 229
 <b>CHAPTER FIVE RESEARCH AIMS AND METHODOLOGY</b>	
 METHODOLOGY AND SAMPLE SELECTION	 238
Why Video Recorders	236
 FIRST STAGE METHODOLOGY	 241
Operationalisation of concepts	242
Beliefs	242
Specific Self Confidence, Experience and Knowledge	243
Risk Perception	243
Opinion Leadership	246
Interpersonal Influence	247
Generalised Self Confidence	247

	<u>Page</u>
Demographic details	248
Sample	248
Discussion and Reflection on Methodology	252
SECOND STAGE METHODOLOGY AND SAMPLE SELECTION	253
Quantitative or Qualitative	257
Types of Interview	262
Validity and Sampling Error	267
Discussion and Reflection on methodology	273
Conjoint analysis	275
Data collection	279
Reflection	289
CHAPTER SIX      FIRST STAGE FINDINGS	
INTRODUCTION	290
Sample characteristics	292
Loyalty	293
Cognitive Beliefs	301
Person Beliefs	301
Knowledge	305
Experience	307
Specific Self Confidence	309
Generalised Self Confidence	313
Opinion Leadership	316
Risk perception	320
Dimensions of Risk	325
Social Normative influences	334
CONCLUSION TO CHAPTER	335
CHAPTER SEVEN      QUALITATIVE FINDINGS	
PROBLEM RECOGNITION	338
Problem Perception	339
Deliberation	342

	<u>Page</u>
Delaying Factors	350
Enabling Conditions	354
Precipitating factors	355
Prepurchase Motives	357
Summary	363
PROBLEM CLASSIFICATION	365
Knowledge and Experience prior to shopping	366
Perceived Difficulty	368
Perceived Risk	372
Summary	374
RENT/BUY DECISION	375
Summary	385
SEARCH BEHAVIOUR	386
Comments on Information sources	394
Personal	395
Shopping	397
Mass Media	405
D.M.U/Purchase Pal	409
Summary	409
EVALUATION	
Evoked sets	415
Decision Rules	419
Final Choice Criteria	425
Summary	440
CHAPTER EIGHT	
CONJOINT ANALYSIS FINDINGS	
Data collection	443
Data Analysis	444
Stress	447
Utility Analysis	449
Comparison of groups	454
Conclusion	458

## CHAPTER NINE

## CONCLUSIONS AND RECOMMENDATIONS

Review of Independent Variables	462
Review and Analysis of Decision Process	471
Rent/Buy Decision	473
Search Behaviour	474
Evaluation Process	476
Overall Review of Discussion	479
Implications for Management	485
Future Research Possibilities	489

## APPENDIX

1. Covering letter
2. Questionnaire
3. Interview Guide
4. References

## CHAPTER ONE

### INTRODUCTION

The purpose of a study such as this is manifold. A major aim is that it will contribute to the growing field of knowledge about how consumers make the decisions which ultimately mean success or failure for the manufacturer, namely which product to buy from a competing range. A secondary aim is that the researcher will gain skills in the process of research which will form the basis for his future research activities. Finally it is hoped that the study will stimulate his own, and perhaps others, interest in the subject and thus encourage further work in the area.

The research developed out of the continuing evolution of consumer behaviour theory. In the late 1960's academics such as Howard and Sheth, Nicosia and others had attempted to delve into the 'black box' of the consumer and explain the cognitive processes which lead to action. Previous research had studied the inputs to the black box, such as the marketing stimuli, or the output in the form of variations in choice behaviour, or the exogenous variables thought to influence the workings of the black box. As the decade progressed research began to change its direction, particularly under the stimulus of the consumer

behaviour text by Engel, Kollat and Blackwell. This text was the first major attempt to describe the process of decision making, and it highlighted the gulf between normative models of how consumers should behave, and research findings into how consumers did behave.

In their attempt to understand this process researchers drew more and more from the discipline of cognitive psychology and by the late 1970's a considerable body of literature was developing which could be classified under the heading of 'Information Processing Models of Choice'.

The interest of the present author at this time was in the nature of rationality and its effect upon search behaviour. Of special interest was the work of Howard, Simon and others who accepted a model of bounded rationality, where the individual optimised under subjective constraints and used simplifying strategies to reduce cognitive effort.

The purpose of this research was to investigate how well such a view of decision making fitted an actual consumer decision, and whether the assumptions of a model based on satisficing behaviour could be justified.

To complete such a study one had to ensure the consumption problem was of a type requiring simplifying strategies to be used, i.e. a decision requiring Extended or Limited Problem

Solving. For this reason the consumption problem chosen was the decision to acquire a video recorder as this product satisfied the criteria which should ensure the problem was perceived by consumers as requiring extended or limited problem solving. In particular it was a product in the early stages of its life cycle, it involved a significant financial commitment and was technically complex.

It was felt that the study should take a broad view rather than focus on too small an element of the decision process which could lead one to lose sight of the total decision, or could result in the findings being difficult to transfer to wider applications. It was hoped that the present study would be pragmatic rather than esoteric and an investigation into what consumers did do to make the 'best' decision rather than what they 'should' have done.

#### Objectives of the study

The objectives of the study were therefore to investigate the process of decision making during extended or limited problem solving; to consider whether the assumptions of satisficing behaviour were justified, and to investigate the nature of search behaviour and evaluation during the decision process and the factors which might influence it.

The research therefore studied the stages of the decision from

the nature of Problem Recognition and Problem Classification, the development of evoked sets during the decision process, the preference and use of different information sources, the nature of search behaviour, the importance of choice criteria, and the decision rules used while employing these choice criteria.

A second area of investigation was into the variables which influence the decision process, and in particular search behaviour. These were studied to see whether owners of video recorders differed from non owners, and whether amongst the owners renters differed from purchasers.

#### Methodology

After considering the various research methodologies and the nature of the research problem three separate research approaches were used to study the area.

The decision process itself was studied using focused interviews with a quota sample of 50 respondents selected from the Glasgow area.

The relative importance of choice criteria was uncovered by the above approach and also by a second method. As a comparison a technique known as conjoint analysis, using a computer program called Monanova, was used with the same 50 respondents as in the qualitative study.



The differences between video owners and non owners, and renters and purchasers, on the variables related to the decision process was investigated by a structured self completion questionnaire. This was analysed using the SPSSX package.

#### Significance of study

While manufacturers often conduct market research studies into specific aspects of decision making related to their product this is seldom placed within a conceptual structure allowing generalisations to be drawn, or allowing the results to be transferred to other problems. Academic studies sometimes tend in the opposite direction and analyse a specific area within a strict conceptual framework which offers little of practical value to the practitioner. It is believed this study has avoided falling between the two extremes and satisfying neither but instead has findings which are of interest both to the practising manager and academic researcher.

Insights have been gained into how consumers reduce, by the use of simplifying strategies, the cognitive stress and behavioural effort involved in choosing a shopping good. This information should be of use to manufacturers in the planning of their communication strategies to ensure greater efficiency in their use of resources and greater effectiveness.

It is also complementary to previous studies of search behaviour which in the past have tended to use a more quantitative approach. In some cases it supports previous research and in others it suggests alternative viewpoints.

It also investigates an area which has received little attention by academic researchers, namely the choice between renting and buying a major household good.

The approach taken, while wide, has the advantage of studying various aspects of a decision within a common conceptual overview. Thus search and evaluation are not studied in isolation but in relation to other relevant variables, allowing common threads to be noted more easily and to gain a deeper understanding of the complex interactions taking place during decision making.

#### Presentation of the study

The study is reported in nine chapters, the structure of which will now be explained.

Following this introduction Chapter Two reviews the main approaches to explaining and analysing buyer behaviour over the last few years. It discusses the nature of rationality and its relationship to the consumer decision process and then moves on to study the general models of consumer, industrial and family decision making.

This provides the background to Chapter Three which examines in greater depth the concepts and ideas introduced in Chapter Two and places them within a conceptual structure. In this chapter the research literature relating to the decision process is reviewed and the majority of the research questions are presented.

Chapter Four is a consideration of the Environmental, Situational and Individual factors influencing the decision process. The literature relating to these concepts is reviewed and a number of hypotheses relating to our study suggested.

Chapter Five restates the research questions and Hypotheses and discusses the research methodology employed. It considers the various methods used by other researchers in measuring the concepts of interest, discusses the relevance of quantitative and qualitative approaches, and gives details of our own approach. The final section of the chapter is a discussion of conjoint analysis and its relevance in this instance.

Chapter Six introduces the first set of findings. This chapter presents the data from the self completion questionnaire and investigates the research hypotheses developed in Chapter Four.

Chapter Seven presents the content analysis of the focused interviews conducted in the second stage qualitative study and

relates the findings to the discussion in Chapter Three.

Chapter Eight presents the findings of the conjoint analysis. It presents the differing utilities given as output from the Monanova program and interprets their meaning. It also compares the differences in utility between different subgroups and draws conclusions from this.

Chapter Nine restates and summarises the findings of Chapters Six, Seven and Eight and draws overall conclusions. It ends with a consideration of the implication of the study for management and researchers.

## CHAPTER TWO

### CONSUMER DECISION MAKING

This chapter will review the main approaches to explaining and analysing buyer behaviour in the last few years and provide an introduction to the next chapter, which deals in more detail with the elements of the process of decision making. It will firstly introduce the concept of rationality which underlies the cognitive models of decision making and then move on to consider the major general models of decision making. These models attempt to show the interrelationships between the various concepts seen as important by academics and to provide a framework for further work. Consumer, industrial and family models will be considered to show any similarities and differences in approach or concepts which exist and how the authors treat the search element of the model. Some of these models include the process of decision making as an implicit part of their model, others merely use a 'black box' to indicate this process. The next section looks at process models of decision making, which by their nature tend to be rather simplistic representations of reality, and shows the common assumptions being made and the main concepts of importance.

## RATIONALITY AND DECISION MAKING

One of the preoccupations of consumer researchers into decision making has been with the discussion "What is rationality in decision making?", and "Does rationality apply in consumer decision making?".

The assumptions of rationality are that people strive to maximise utility and have perfect knowledge in the search for the optimum solution. As Simon ( 1956 )points out while people may have the wish to maximise utility, they wish to do so on a number of subjective dimensions so that a collection of potential satisfactory solutions exist. Also, not only do they not have perfect knowledge, they're not sure what perfect knowledge is.

To be rational, according to Simon, a person needs to be able to:-

- \*recognise and grade a product on a number of utility functions

- \*compare and summate these functions

- \*know about and have utility functions for all possible alternatives

In practice the effort is too great as the information is not available, or would be too "expensive" to collect, and even if we had it cognitive overload would take place. As will be shown

later choice tends to be satisficing rather than optimising, and sequential rather than comparative.

### **Bounded Rationality**

Simon introduced the term "bounded rationality" when he was discussing the boundary between rational and non-rational aspects of human behaviour. He rather harshly states that bounded rationality is, "the behaviour of human beings who satisfice because they have not the wits to maximise".

To meet the principle of efficiency, i.e. to be the classical economic man, amongst several alternatives costing the same the one selected should be the one which leads to the greatest satisfaction of objectives. Similarly, amongst several alternatives achieving the same goal, the cheapest should be chosen. But how are the choices to be maximised, what limits a persons quantity and quality of output?

Simon argues that these 'limits of rationality' are important as if two people are given the same limits, objectives, and values and the same knowledge and information then they can only rationally decide on one course of action.

The researcher must therefore investigate what are the relevant mental skills or intellectual ability which affect decision making; can these skills and ability be taught? What is the influence of values on rationality? Simon believes values affect

the conception of purpose of an individual, i.e. his objectives, as when loyalty to a subgroup in the organisation or social referents, or loyalty to a particular company or supplier may conflict with other objectives.

This research will be looking at the nature of decision making. In particular it will consider the process of decision making, the nature of the decision rules used and the role of information during decision making. We will be suggesting that the assumptions of rationality and the principle of efficiency has misled researchers and that more attention should be placed on understanding the social and psychological basis of problem solving.

Rationality requires perfect knowledge yet knowledge limits rationality in many ways. The researcher must investigate what knowledge exists about the product, what situational knowledge relevant to this exchange or problem exists, what are the limits to the knowledge an individual can accumulate and apply, how rapidly can knowledge be assimilated, what channels of communication is he attached to, does this system of communication vary during the appropriate decision points, what types of knowledge can, and cannot, be easily transmitted? All these are important questions researchers have addressed themselves to which will be reviewed later.



Rationality requires us to view alternatives in a panoramic fashion, to consider the whole complex of consequences that would follow each choice with a set of criteria singling out one optimum choice from a whole set of alternatives.

Actual behaviour falls short of this 'ideal'. Knowledge of consequences is always fragmentary since these consequences lie in the future and can never be predicted with certainty, as situational conditions can act upon expected consequences. Only an insight into a complex set of relationships and laws would allow a person to predict future happenings and in practice only a few of all possible alternatives come to mind as, at a given moment, the mind cannot grasp all the consequences in their entirety. Instead attention shifts with shifts in preferences.

A point made by Simon which will be explored later, is that anticipation of consequences of a choice has not the same force on the emotions as the experiencing of them. This is an important influence in risky behaviour. The more vividly the consequences of losing in a 'risky' choice are visualised, through past experience etc, the less desirable the risk appears. The probability of loss stays the same but the desire to avoid the consequences has been strengthened. Experiential learning (the gaining of knowledge of attributes and benefits by actual usage, rather than reported knowledge) may therefore play a much more important role in decision making than most models tend to suggest, and we will be discussing this later in Chapter 3.

To be rational therefore a person must have the ability to follow a course of action, have the correct understanding of the goal of the action, and be correctly informed about conditions surrounding his action. Within the boundaries laid down by these factors his choices are rational-goal orientated. Rationality is therefore perfectly flexible and adaptable to abilities, goals and knowledge, and behaviour is determined by the irrational and non rational elements that bound the area of rationality.

As Simon (page 79) states,

"It is impossible for the behaviour of a single isolated individual to reach any high degree of rationality. The number of alternatives he must explore is so great, the information he would need to evaluate them is so vast that even an approximation to objective rationality is hard to conceive. Individual choices take place in an environment of 'givens'-premises that are accepted by the subject as the basis for his choice, and behaviour is adaptive only within the limits set by these 'givens'."

The act of making a decision therefore requires that a goal be identified, that information is acquired about several alternative ways of achieving the goal, and that a choice is made between these alternatives, all conducted within the constraints of 'bounded rationality'. Thus while all individuals subjectively optimise, their final choice may be fundamentally different from that which should follow from 'objective optimising'.

The next section discusses how consumer behaviour theorists have conceptualised the problem solving process. The usual approach is

to view it as a three stage process from the cognitive stage of knowledge, through the affective or attitudinal stage to the final conative or action stage. Other models do exist which do not follow this process and these will be mentioned.

#### CONSUMER DECISION PROCESSES AS RATIONAL PROBLEM SOLVING

The approach taken here is that consumer behaviour as manifested in a consumer decision process is an exercise in problem solving and a problem exists when there is a goal to be attained or sought and uncertainty as to what is the best solution for the given or perceived problem. Markin(1974) suggests there must be some minimal and necessary conditions for a problem to exist.

1. An individual (or group) who has the problem: the decision maker

2. An outcome that is desired by the decision maker. Without the desire to attain an as-yet-unattained outcome there can be no problem.

3. At least two unequally efficient courses of action which have some real chances of yielding the desired objective.

4. A state of doubt in the decision maker as to which choice is "best". There must be some uncertainty on the part of the decision maker as to which choice is or will be "best".

5. An environment or context of the problem. The environment consists of all factors which can affect the outcome and which are not under the decision makers control.

Markin believes that from the problem context arises the necessity for problem solving which is concerned with the designing, evaluating and choosing of alternative courses of action or behaviour.

The problem solving approach stresses the view that the consumer moves through a series of sequential and reiterative stages or procedures in reaching or not reaching a consumption decision. This decision process normally is seen as consisting of five major activities or stages including (1) Problem Recognition (2) Search activity (3) Information Evaluation (4) Choice Decision and (5) Post Purchase evaluation. The extent of effort devoted to each of these stages will vary by individual depending upon the way the problem is perceived, the effects of the problem situation and personal variables such as ego involvement etc. These will be discussed in the next chapter.

This sequence of stages is normally recognised as consisting of three psychological states, cognitive, affective and conative or the C-A-C flow.

The cognitive stage refers to a knowledge and awareness dimension of behaviour. It implies behaviour is a function of knowledge values, ideas and images and to facilitate behaviour marketers must provide information and knowledge that triggers and facilitates these cognitions.

The affective stage relates to attitudinal states of the individual. Consumers must be taught to like or prefer one brand over another and thus consumer behaviour is a learning curve built upon the previous cognitions.

The conative stage relates to a striving state, or motivational state of the individual and stresses the tendency of individuals to treat objects (or goods or services) as positive or negative goals. Behaviour is thus goal orientated.

This sequence will be discussed further when decision process models are investigated but its assumptions about goal orientated information searching and evaluation are fundamental to most models of consumer behaviour.

#### **Involvement and decision making**

At this point it should be noted that this view of consumer behaviour, deriving from cognitive learning theory, is by no means universally accepted and behaviourism is an alternative viewpoint in explaining and predicting behaviour. An excellent consideration of the two schools of thought is given by Gordon Foxall (1983) who argues strongly for a reconsideration of the prevailing 'cognitive' paradigm and the relevance of behaviourism to marketing. As argued earlier in this chapter the cognitive model stresses the importance of explaining behavioural change by reference to the prior intrapersonal change, and this is explicit

in the models we are about to review. Foxall argues that the dominance of this theoretical framework is restrictive and that behaviourism, which he believes has been misinterpreted and misrepresented by consumer researchers, offers an alternative perspective.

Drawing upon the work of Skinner and the radical behaviourists he explains how environmental factors affect the rate at which behavioural responses occur, and the consequences of behaviour come to shape and maintain it (Operant Conditioning). Thus 'behaviour is shaped and maintained by its consequences' (Skinner 1972 p18 Beyond Freedom and Dignity. London:Cape)

This set of assumptions is explicit in the work of Ehrenberg and Goodhardt on brand switching and may well be the theoretical basis for Low Involvement learning.

One of the first researchers to question the normally accepted cognitive model with their C-A-C sequence and stimulate the discussion in this area was Michael Ray of Stanford who in a working paper (1973) noted that the hierarchy of communication effects concept served as the principal theoretical basis for, and the major planning and appraisal tool of, the advertising communications field. He addressed himself to the central question: Does awareness lead to comprehension to conviction and then to purchasing behaviour, as suggested by the usual process type models?

The conclusion of Ray was that there were three kinds of hierarchy which could operate, depending on the level of involvement of the decision maker. (Figure 2.1) In high involvement situations where differences existed between brands, then the standard learning hierarchy could operate (based on normal cognitive learning theory). If few differences existed between brands then Dissonance or Attribution theory applied where action occurs first, then attitude shift, and finally awareness and comprehension. This is the exact reverse of the standard learning hierarchy. The Low Involvement hierarchy most often occurs when there are minimal differences between alternatives or when low involvement makes actual differences unimportant to the decision maker. The sequence in this case is awareness, minimal comprehension, then purchasing action followed by attitude or conviction change.

Figure 2.1 Three orders model of information processing

		Involvement	
		High	Low
Perceived Product Differentiation	High	<u>Learning model</u>  Cognitive Affective Conative	<u>Low</u>  <u>Involvement model</u>
	Low	<u>Dissonance/ Attribution</u>  Conative Affective Cognitive	Cognitive  Conative  Affective

The learning hierarchy sees consumers as active information seekers and processors with the buyer selectively and in stepwise form collecting and analysing data to arrive at a choice.

"The low involvement/commitment hierarchy suggests the buyer may not be particularly committed to his/her brand selection for many products. When this is the case the consumers selective processes are relatively inoperative and advertising is passively accepted without undue resistance and without thorough message evaluation."

Robertson 1976

Thus information seeking is often based on trial of the product and later evaluation.

Evidence is slowly building up that high involvement decision making may well be the exception rather than the rule and thus attention has been focused on what tends to lead to high or low involvement.

Sherif and Cantril (1947) suggest that "involvement exists when any social object is related by the individual to the domain of the ego". In other words if it is related to the value system on an important dimension. The degree of involvement depends upon how related is the object to the value system, how centrally or highly ranked is the value, and how many values are engaged.

Commitment is also important as "Ego involvement ...is the arousal...of the individuals commitment or stands in the context of appropriate situations." (Sherif, Sherif and Nebergall 1965)

Involvement was tested, using the above framework, by Lavtovicka and Gardner (1979) and they found, using factor analysis that two



main dimensions exist;

\*Normative importance -how connected or engaged a product class is to an individuals values

\*Committment to a position -how pledging or binding is a brand choice on an individual

Rothschild (1979) suggests involvement can be split into two minor elements, situation involvement and enduring involvement. Situation Involvement is a "concern with a specific situation such as a purchase occasion or an election" while Enduring Involvement is a "level of involvement towards the general class object or issue which an individual brings to a situation: it reflects his pre-existing cognitive and affective sets and may also reflect past behaviour"

Thus a consumer may normally buy low priced whisky in a random manner as he has little interest in the product class (low enduring involvement), but on a visit by his boss or at Xmas high situation involvement occurs leading to time being taken over the choice and an expensive purchase.

Support for the High Involvement /Low Involvement learning models comes from Krugman (1965) who has shown that the two halves of the brain operate independantly from each other. He argues that the left half is used in problem solving, reading, speaking, i.e. in high involvement situations. The right half is concerned with the perception of images, and is used in low involvement situations.

He argues that the right brain scans the environment to decide what the left brain should focus on. In low involvement situations the perceptual images gained are not translated into verbalised beliefs or criteria until a behavioural trigger comes along, we don't 'think' about the symbols (use left brain) until purchase when all the symbols and images crystallise into words and thought and restructuring takes place with shifts in salience etc.

The importance of involvement is obvious in that different communication strategies are obviously needed to cope with the different situations.

In low involvement situations little information will be sought, information incidentally received (received when information acquisition was not the motive of the activity) will be stored without evaluation, and trial is likely to be the main information collection stage.

Secondly, whereas in high involvement perception is selective with information being screened, evaluated, distorted and stored in cognitive structure, this is not likely to happen in low involvement. There is little selectivity as there is little inclination to protect low commitment beliefs. Exposure itself might be sufficient to cause behaviour with minimal learning, such that exposure to mass media content would be persuasive per se.

Consumption can be seen as a very visible aspect of self image and therefore subject to personal influence. The role of opinion leaders and personal influence channels would therefore need to be considered in a high involvement situation. In low involvement there is no need to seek approval or information when brands are not perceived to have meaningful distinguishing characteristics.

"given minimal prepurchase information needs for low commitment products, advertising alone can move the consumer to trial, which may then determine repeat purchase"  
Robertson 1976

This means there will be no two step flow and no cognitive dissonance, since commitment is a necessary condition for dissonance and there is no need to justify the behaviour.

The communication strategy for a high involvement decision would therefore be to enhance awareness and knowledge through high information content messages with an emphasis on print media. Attitude development is most easily effected by a high credibility information source, especially of a personal nature, or by personal experience. The low latitude of acceptance of messages means only messages which `fit` existing beliefs or the present position will be readily accepted. Behavioural intention should be manipulated by adjusting the bundle of product attributes at the time of purchase by deals or special offers. The long term behaviour will be effected by reinforcement from the product itself, by the use of warranties and aftersales service. Advertising can be used as a dissonance reducer, to support the beliefs and decisions as it will have little effect

earlier due to its low credibility.

In a low involvement situation it is more likely that a satisficing decision will be taken as all products are seen as being reasonably similar and thus the first satisfactory product will be chosen which passes the set criteria. It will be important therefore that your product reaches minimum standards to ensure its inclusion in the evoked set. This will be discussed further in the next chapter.

The wide latitude of acceptance which exists with low involvement would lead one to expect a larger evoked set than with high involvement purchases. At the awareness stage the consumer is likely to absorb a few key points rather than being interested in a broader information campaign. This suggests short messages with high repetition of the key points to avoid information overload. Broadcast media are most appropriate as they are a passive medium requiring little cognitive energy. There will be no attitude development to worry about therefore the campaign should concentrate on slowly developing a mental set amenable to behaviour. The wider latitude of acceptance means wider and more extreme claims will be accepted without evaluation. Price will often be used as a satisficing criteria as will visual aspects of the purchase (display and point of sale). Attitude development after purchase, if at all, means product reinforcement is important and a satisfactory level of benefits needs to be achieved. The initial behaviour is often likely to be a trial

and prolonged use will be necessary to create a favourable attitude.

### Conclusion

The difficulty for researchers is to know which set of assumptions or theoretical structure to bring to bear in analysing any particular situation. While the strict model of rationality has long been rejected by consumer behaviour theorists, the quasi rational model of Simon and others is also now coming under increasing attack and the overly simplistic 'associationist' models which reject any form of mental activity are being reconsidered using the low involvement or attribution framework.

While this alternative paradigm has been shown to have some validity in certain situations the general thrust of academic and industry interest is still in the cognitive models which assume a 'thinking being' is making reasoned choices and this ✓ will be the approach taken by this study.

The next section reviews the major models which have been published to explain choice behaviour within this theoretical framework.

We shall first look at general consumer models which are frequently cited in the literature, then general industrial models to show the similarity of approach, and finally family models which take into consideration the decision making unit of the family members.

## GENERAL MODELS OF BUYER BEHAVIOUR

The marketing literature yields comparatively few comprehensive models of buyer behaviour but of those most often quoted all have a decision process as an integral part of them. This section will look first at comprehensive models in the consumer field, then industrial models and finally models of the family decision process. While it will not be possible, and is not necessary, to consider the models in depth certain commonalities can be observed which can be seen to build into a reasonably consistent way of viewing high involvement purchasing.

### GENERAL CONSUMER MODELS

Certain models have attracted greater attention than others and while other attempts at model building have been made other than those reviewed here we shall focus on the four models which have gained most attention from other authors, although it is not suggested this necessarily bears any relationship to the worth of the model. The four models reviewed in this section are Nicosia's, Howard and Sheth's, Engel, Kollat and Blackwell's, and a recent model by Bettman.

#### Nicosia Model

The Nicosia model (1966) was one of the first attempts to produce a general theory of buyer behaviour. His work cannot be fully detailed here, but the concepts and flow chart techniques used in

the exposition of the linkages among the concepts are certainly part of the stream of thought that underlies the emerging theory of buyer behaviour and accordingly, a brief description of the Nicosia model, emphasising the search process, will follow.

Nicosia discovered when examining the early literature of decision processes, what he believed to be a conceptual commonality; i.e. the "funnelling" process. This mechanism begins with the consumer recognising the existence of a problem. Such recognition triggers search activities which gradually narrow the area of possible solutions until a final solution is found. The comprehensive scheme described below is based upon this "funnel" concept.

Nicosia postulates four fields with various subfields through which the consumer decision process moves. (Figure 2.2) The process begins in Field One with a message from a persuader, which is received and processed by a consumer and in some way results in an attitude as output. Field Two consists of the search for, and evaluation of, attitudes to the advertised brand or products available. The output from Field Two is seen as motivation to buy and acts as input for Field Three. Field Three is the act of purchase where the intention and motivation is translated into action. This behaviour acts as an input for Field Four, consumption of purchase and/or storage. The output of Field Four feeds back into Field One to become part of the predispositions of the consumer which will have an effect on any

succeeding communication.

Field Two is of special interest in that it describes the search and evaluation steps in the buying process. Two types of search behaviour - internal and external - are defined with each type assumed to be related to a different subset of variables.

1) Internal search is said to be a consumer's conscious or unconscious retrieval of information from his psychological field that applies to the brand, the product or the firms that manufacture or sell the product. This kind of search behaviour is hypothesised to be a function of:-

- a) the consumer's value system,
- b) the consumer's orientation to other behaviour areas e.g. religion, politics, culture,
- c) the attributes of the message perceived, internalised and stored,
- d) the cognitive structure in which the message has been stored,
- e) the extent to which all of the above have been retained or forgotten.

(Nicosia p174)

2) External search is defined as "overt activities that, consciously or unconsciously, purposefully or accidentally, uncover information about the subject's specific problem" (Nicosia p175). These overt activities are said to include self



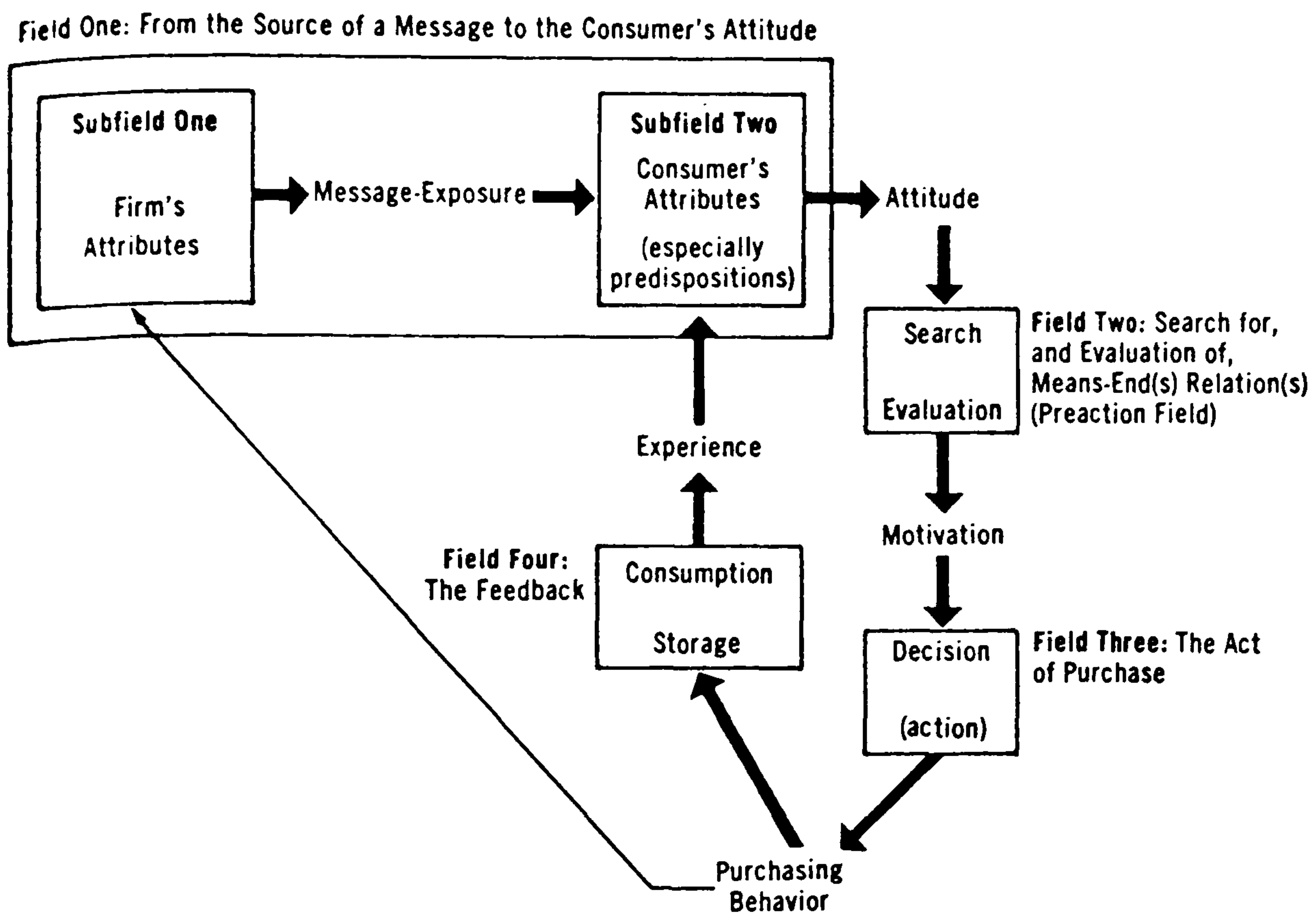


Figure 2.2: Nicosia's Simplified Model of Consumer Behaviour

exposure, talking with family, friends and associates, shopping and talking with sales persons, seeking information about expected income, assets, credit availability and product and brand attributes.

The complexity, intensity and duration of this type of search is, according to Nicosia, a function of the consumers:-

- a) values and his commitment to them,
- b) level of aspiration,
- c) perception of the cost and benefits of information,
- d) psychological involvement with the need for the product,
- e) search propensity.

The last factor is further defined by Nicosia as "a collection of an individual's psychological traits and processes" (p 174) and includes the consumer's perception of the problem, modes of tension reduction (i.e. problem solving), perception and handling of risk, uncertainty and ambiguity.

The Nicosia model suffers from the same weakness found in earlier models because the variables and their relationships are imprecise due to the lack of empirical research about the buying process.

Tuck (1976) is highly critical of Nicosia's work and states;

"his attempt was too ambitious and too premature. He tended to take broad psychological overgeneralisations as given, so that he could enter everything into his flow chart. There is little or no concern with the operationalisation of the variables listed in the flow chart. There is little or no specification of the nature of the relationship between variables. What knowledge we have suggests that the simplifying assumption of a linear relationship is a falsification".

It can be said that Nicosia made a brave attempt which stimulated the academic world by his suggestion of what might happen but which later research failed to confirm. As Ehrenberg (1968) puts it in a highly critical review of Nicosia's work "The book illustrates the modern model builders syndrome of trying to run before he can walk".

#### Engel, Kollat and Blackwell Model

In the initial Engel, Kollat and Blackwell model (1968) the buyer is depicted as a "system" with a similar funnelling scheme as proposed by Nicosia. Memory and thinking on the part of the buyer are contained in a "central control unit". Physical and social inputs enter this "central control unit". Past information and personality characteristics influence values and attitudes which are in turn inputs into the system.

Later versions of the model moved away from the 'black box' to the role of memory and thinking and as a body of literature developed to explain the nature of information processing so this

part of the model became more detailed in its exposition.

The decision process has always been a major part of the Engel, Kollat and Blackwell approach and indeed they could be said to have popularised this theoretical viewpoint. The process proceeds in stages from problem recognition, through the search for and the evaluation of alternatives, to choice followed by outcomes of satisfaction or dissonance. Each of these stages have outcome branches to allow for looping back, continuing on, or halting although the later versions of the model are simpler in their approach. The model, accordingly, is said to accommodate all types of decision making from extended problem solving to routine problem solving.

One of the major changes in the EKB model is the increasing emphasis on the high /low involvement dichotomy, such that the 4th edition explicitly states it is a high involvement model and provides a discussion of low involvement purchasing with its own truncated model of problem recognition, choice and alternative evaluation with a slightly modified information processing component to exclude 'yielding'. This modified model thus covers repeat purchase behaviour under conditions of low loyalty whereas the normal model is meant to include brand loyalty based on high involvement.

Engel, Kollat and Blackwell (1968,1973,1978,1982) published their model in the form of a text book on consumer behaviour in 1968 primarily with a pedagogical intent. The authors admitted

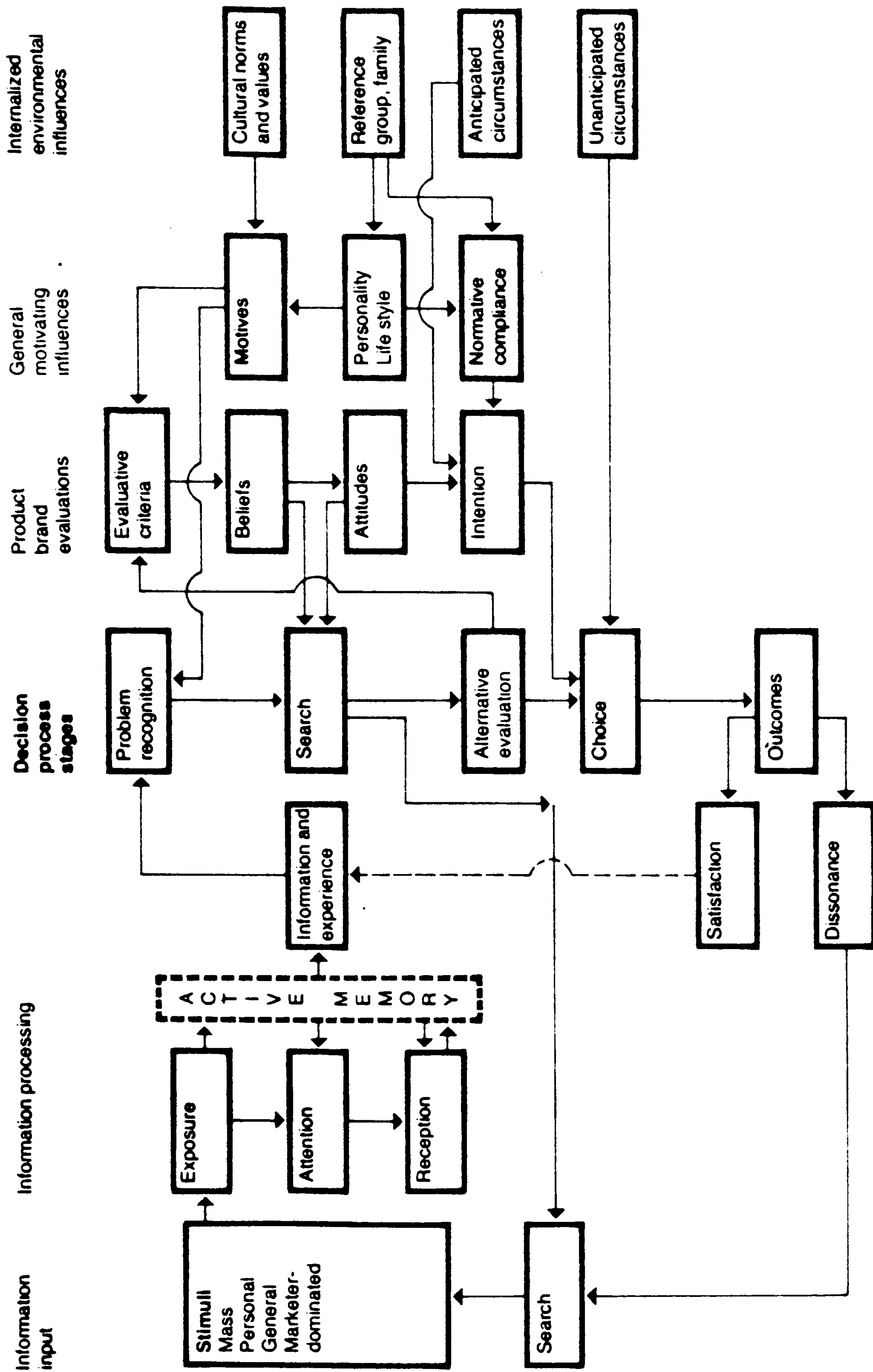


Figure 2.3: Engle, Blackwell & Kollat, Model of Buyer Behaviour.

(1978), that the book merely reflected the overall state of the art at that time with no explicit attempt to specify quantifiable functional relationships as it was not expected that the model would be subjected to the same rigorous tests as the Howard and Sheth model. Tuck's criticism that the book is superficial, lacks specificity and cannot be operationalised would therefore be accepted by the authors. The 1968 model has however undergone revision in various editions which tend to answer some of the earlier faults. The new model is still meant as a structure for teaching and learning, rather than a testable model of consumer problem solving, but as might be expected it has become clearer in its inter-relationships, sequences and operational definitions. (Figure 2.3)

The authors note the new model's similarity with the revised Howard and Sheth model, as might be expected when the same field and concepts are covered, but point out that fundamental differences exist, for example, the inclusion of Fishbein's work (1975), the exclusion of Confidence as a concept, and the differing treatment of information processing which they see as of major importance.

Engel, Kollat and Blackwell explicitly explain that their model is not "The theory of buyer behaviour", a claim made by Howard and Sheth in 1969, and state that it would be the height of absurdity of make such a claim because,

"Given the present level of knowledge of the subject matter and problems of conceptualisation and measurement, it is unlikely that any model will receive definitive empirical verification".

Their model has however guided researchers in the area of decision processes and they have had a major role in publicising findings relevant to search behaviour. As one of the major text books in consumer behaviour for 16 years their consideration of the various stages and variables influencing the process has few competitors.

#### Howard and Sheth's Theory of Search

A detailed analysis of the Howard and Sheth model, in all its various forms, and a discussion of the empirical research on the model can be found elsewhere (Doran 1977, Klahr 1974). A simplified description of the original model is provided in Figure 2.4 .

The first truly integrative model of buyer behaviour was proposed by John Howard in 1963 and it was here that he first introduced the useful distinction adopted by many researchers between true problem solving behaviour (similar to the rational economic model discussed earlier), limited problem solving and automatic response behaviour. At the time there was little published research to support his model and the same can be said of the greatly expanded and revised version published in 1969 with Jagdish Sheth.

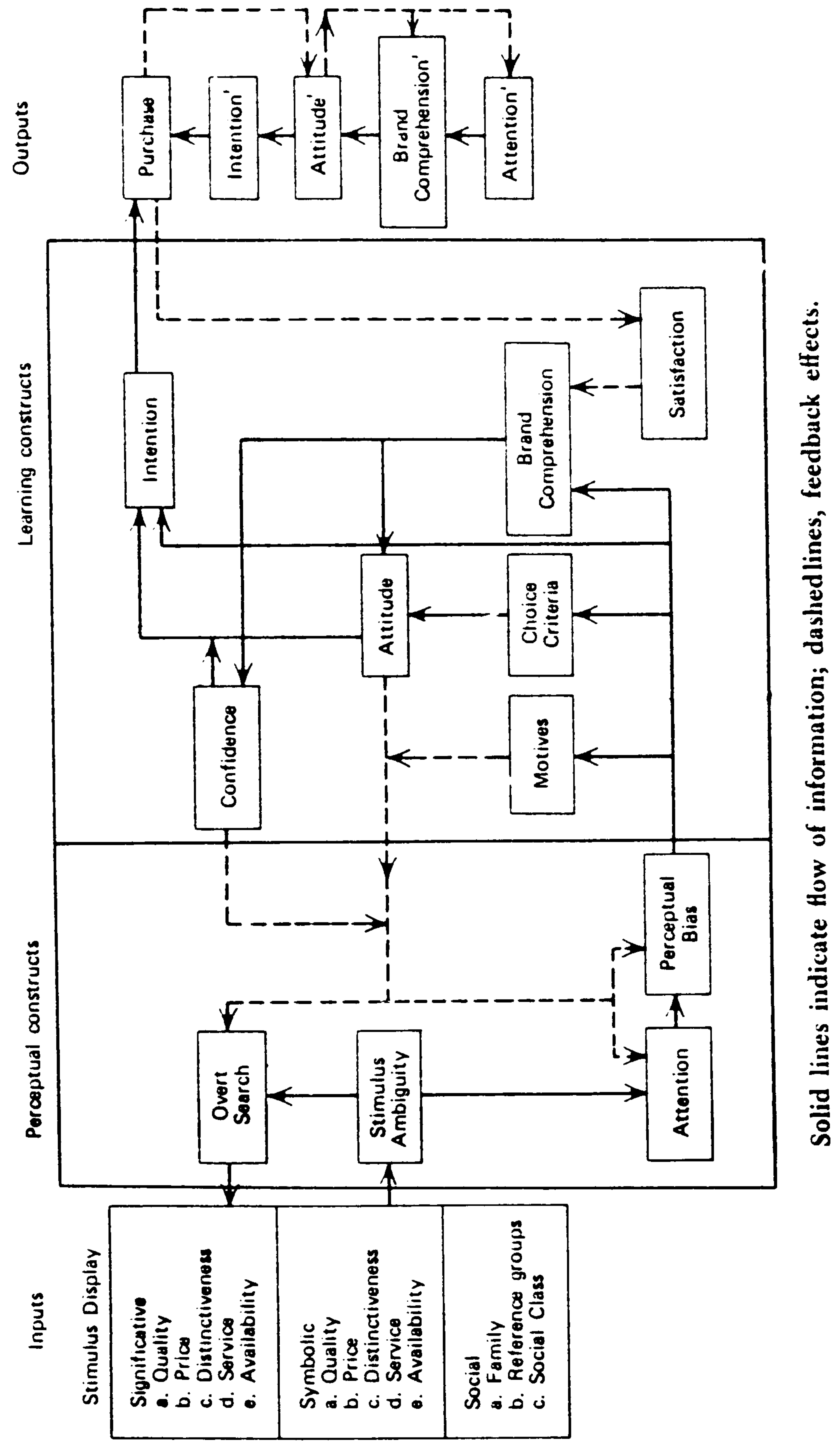


Figure 2.4: Simplified Description of Howard & Sheth's Theory of Buyer Behaviour.



The model has inputs from a stimuli display and outputs of attention, brand comprehension, attitude, intention and purchase. Between these two elements are a perceptual subsystem and a learning subsystem.

The perceptual subsystem relates to the function of information procurement and processing relevant to a purchasing decision.

These are labelled: a) Attention, b) Stimulus Ambiguity, c) Perceptual Bias, d) Overt Search. This perceptual subsystem receives inputs directly from the Stimulus Display.

Howard and Sheth believe that this perceptual subsystem converts the external event, Stimulus Display, into a "Stimulus-as-Coded" (p 152) which becomes an input into the learning subsystem and is converted into an influence on purchase.

The learning subsystem contains such constructs as motives, choice criteria, attitudes, brand comprehension and confidence, which constitute the 'evaluative' aspect of the model, and has a feedback effect through attitudes and confidence.

The elements of the perceptual subsystem relate to the internal and external search activities, and will now be discussed in greater detail, whereas the learning subfield relates more to actual evaluation and choice.

## Perceptual subsystem

The perceptual sub system has four major concepts of relevance. Attention, Overt Search, Stimulus Ambiguity, and Perceptual Bias.

Attention. Attention refers to the degree of "openness" of the buyer's sensory receptors for a particular feature of a specified stimulus display and is the first method of control used by the buyer to satisfy his information requirements. If the amount of control is not adequate in the sense that the buyer is motivated to look at or be exposed to the stimuli, then Overt Search follows.

Overt Search. Overt Search refers to the process by which the buyer selects a particular element of his environment in order to clarify the descriptive and evaluative cognitions related to a brand or product class, as well as to satisfy motives such as novelty or to clarify the saliency of given motives.

Stimulus Ambiguity. The ambiguity of the stimulus display is another influence on the flow of information to the buyer's mental processes.

Ambiguity of a perceptual or conceptual nature occurs when there is a lack of clarity of the Stimulus Display in communicating the descriptive and evaluative aspects of the brand, i.e. competing claims, inconsistent facts, lack of information. This ambiguity leads to uncertainty and arousal. This arousal initially leads

to increased attention. If this is not sufficient, i.e. does not provide the required information, the buyer proceeds to the activity of changing his Stimulus Display, by exerting active Overt Search, or in psychological terms exhibiting an 'orientating response'. Howard and Sheth believe that Confidence is the inverse of Ambiguity (p 187).

In discussing this concept Howard and Sheth state that information is sought to satisfy two needs: to solve purchasing problems and to maintain a satisfactory level of stimulation. These are called 'specific exploratory behaviour' - to reduce ambiguity of a perceptual or conceptual nature, and 'diversive exploratory behaviour' - to maintain a satisfactory level of stimulation for the buyer. Diverive exploratory behaviour has nothing to do with obtaining information about a brand in order to make a choice, and is motivated by factors quite different from specific exploratory behaviour.

A third type of exploratory behaviour is defined as 'epistemic'. In this case buyers search for information that they store for future rather than immediate use. Opinion leaders and 'other directed' people are often thought to behave in this manner. Irrespective of the motivational basis of the buyers arousal, be it specific, diverive or epistemic, its initial effect is to increase the buyers attention to existing sources of information.

Perceptual Bias. Perceptual Bias affects the quality or meaning of the information the buyer receives, and refers to the complex

process consisting of the perceptual and cognitive devices by which the buyer qualitatively distorts or selects information that he has already taken into his nervous system.

These constructs are all affected by endogenous variables such as importance of purchase, time pressure, personality, etc. As with most of the models environmental and other factors are seen as variables effecting search and evaluation but initially the models did not explicitly show their effect.

Since the publication in 1969 of Howard and Sheth's "The theory of buyer behaviour" the Graduate School of Business of Columbia University have devoted much time and effort in trying to operationalise the model, leading to many revisions of the theory as knowledge progressed (Howard and Ostlund 1973, Farley, Howard and Ring 1970,1972,1974). Because the model and its supporters have claimed so much it has tended to attract much more criticism than the other models.

The model from its inception, was meant to be tested empirically as well as being metatheoretically sound. Zaltman et.al. (1973) find it metatheoretically sound, along with Nicosia and Engel, Kollat and Blackwell's models, but it has been found to be empirically weak. (Tuck 1976, Hunt and Pappas 1972, Lutz and Resele 1972, Taylor and Guttman 1974).

Holbrook (cited in Farley, Howard and Ring 1974) states in his

synthesis of tests of the model that only small parts of the model have been tested, support for the model has been fragmentary at best, no single link receives consistent support and that none of the studies can claim percentage of variance explained of more than 10%.

He notes that relationships are more complicated than initially stated, there is considerable measurement error, distinction between endogenous and exogenous variables is not sharp, variables are difficult to define operationally (such as perceptual bias and stimulus ambiguity); causal relationships are extremely difficult to prove and the assumptions of linearity between variables is false.

Tuck (1976) questions the basic claim of Howard and Sheth that they have created a theory and states

"To my mind it suffers from the same defects as the work of their predecessors: it is, strictly speaking, prescientific. The theory produced is untestable and non-specific and fails to meet the criterion of a good science".

She quotes Ehrenberg (1972) on Howard and Sheth when he states

"Stripped of the mathematics and assumptions it does not appear that such theories contain any generalised knowledge of consumer behaviour, or that the analytical techniques have yet proved themselves in routine use".

He gives them the name of "models without facts".

## Bettman Model

One of the more recent attempts at producing an integrated model of consumer behaviour was made by Bettman (1979) who took an information processing perspective considering the type of information used by consumers, how the information is evaluated and how decisions are made.

Figure 2.5 shows the structure of the model which can be broken down into two sub-modules: the basic hierarchy and intermediate processes. There is not meant to be a 'starting point' as such as the interaction is such that the process is continuous.

The basic hierarchy consists of five main sections. Motivation and goal hierarchy, Attention, Information acquisition and evaluation, Decision process, and Consumption and learning.

The motivational and goal hierarchy serve to control the movement of an individual from some critical state towards some goal. Attention can be broken down into voluntary attention which requires cognitive effort, and involuntary or what we shall later call incidental attention. The goals being pursued influence attention and hence information acquisition and evaluation determines when information is sufficient for decision. Decision processes are seen as going on all the time, focusing on the comparison of alternatives. A variety of choice heuristics are viewed as being used for these comparisons. Finally the purchase

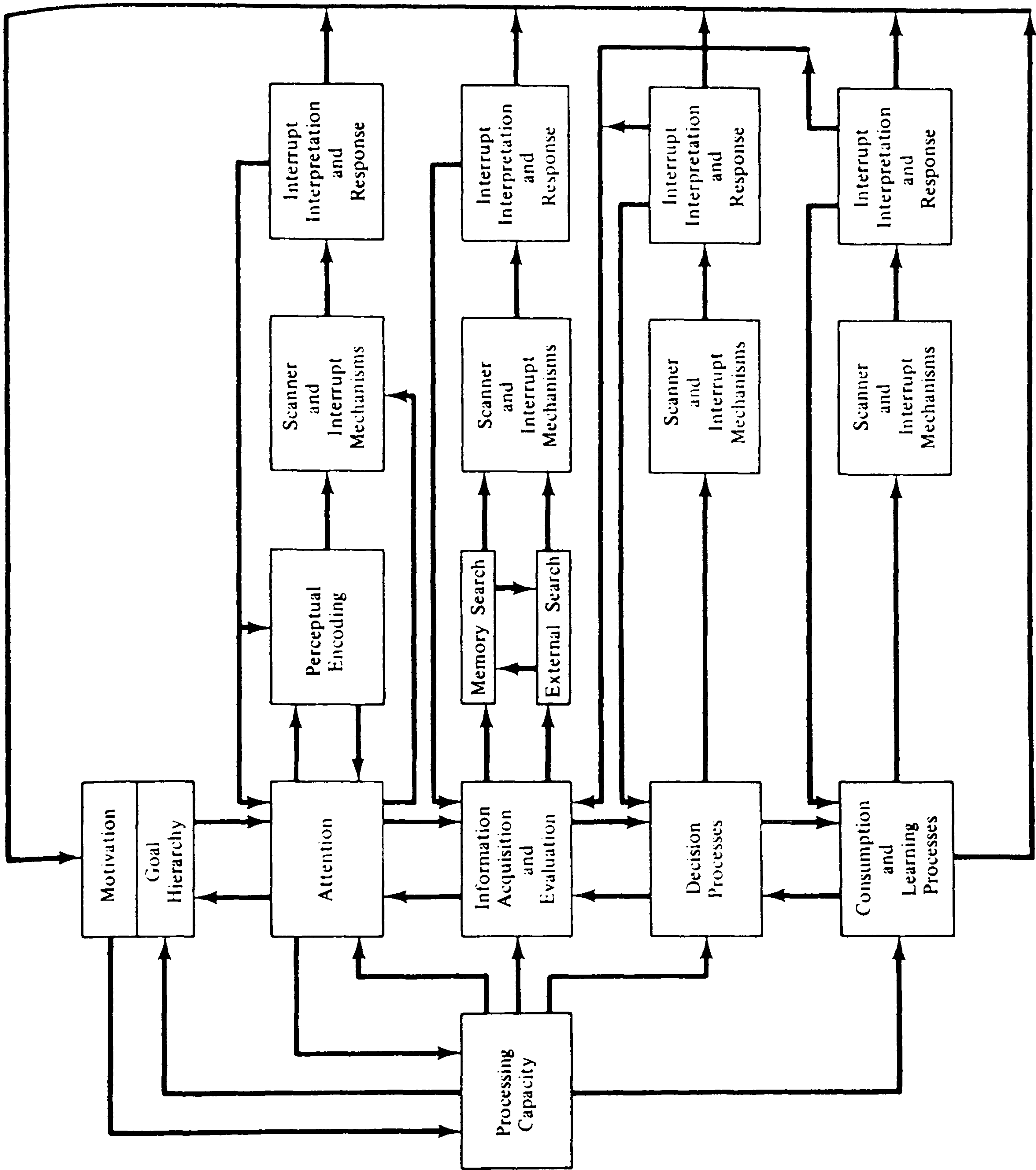


Figure 2.5: Bettman Model of Consumer Behaviour.

and consumption of the product opens up a new source of information to the consumer (experiential learning) affecting the structure of future choices.

Intermediate processes affect and constrain the basic hierarchy and consist of Perceptual encoding, Processing capacity, Memory and External search and Scanner and Interrupt mechanisms.

Perceptual encoding is similar to the Howard and Sheth viewpoint and consists of the interpretation process the individual goes through after being exposed to a stimulus which is affected both by memory and the stimulus itself. Processing capacity limits the information processing stream and is positively related to motivation and effort. The complexity of a problem may exceed processing capacity thus leading to the use of simplifying choice heuristics. In a choice situation information acquisition may occur through internal search (memory) and external search (redirecting attention and perceptual encoding). The level of information search is affected by the costs versus the benefits of the information, the availability of the information, the difficulty of the choice task, and time pressure. Adopting ideas from Simon, which have been mentioned earlier, Bettman postulates the scanner mechanism monitors the environment for the purpose of noting conditions that require changes in current actions or beliefs. When a scanner threshold is reached an interrupt mechanism is triggered and new responses are generated. These mechanisms are postulated as affecting virtually the entire decision process hierarchy.



## Conclusion to consumer section

The relevance of these general consumer models to marketing practitioners is doubtful as they tend to prefer models of more practical value in predicting behaviour or as guides to communication strategies. This does not necessarily reduce their value to academics who may be stimulated by them into testing the postulated relationships or use the general framework suggested to guide their own research.

The Nicosia model was meant to be rather more practical in nature, being computer orientated, but seems to have gained little attention from practitioners or academics other than to be mentioned in text books on consumer behaviour and PhD submissions. The Howard and Sheth model has been tested by a number of researchers, often PhD students, at Columbia University, the home of the two authors. The findings were often depressing with the relationships unproven and major changes in definitions and operationalisation necessary. Their book however became almost required reading for researchers in the field and thus their influence can be seen in the separation of perceptual and learning subsystems (later often seen as search and evaluation) and their consideration of exogenous variables. As such their influence should not be underestimated. Howard's tripartite split of problem solving into Extensive and Limited Problem Solving and Routine Response Behaviour has been one of the most useful contributions, although he had previously introduced the idea (1963) and was to expand it further later

(1977). The Engel Kollat and Blackwell model has probably had the greatest effect on researchers although it has seldom been tested. It was the first major text book to deal with the decision process in depth and for many years was unique in this. It thus was read at an early stage by many of the later researchers and has had obvious effects on their thinking. The Bettman model was included as it is one the the rare recent models to be quoted in other textbooks but has little real significance other than being a framework for the new information processing approach to consumer behaviour.

## GENERAL INDUSTRIAL MODELS

Industrial models are generally rather more simplistic than their consumer counterparts, reflecting often the managerial orientation that is taken. They seldom question the rationality implicit in the decision process and often ignore or superficially comment on the behavioural aspects of organisational behaviour. This is despite work such as "A behavioural theory of the firm" by Cyert and March (1963) and a great deal of work on organisational psychology.

The main models are those of Webster and Wind, Sheth, Baker and Choffray and Lillien although, as in the consumer section, this relates to the attention paid to them by other authors who deem them worthy of mention.

### Webster and Wind Model

Webster (1965) made one of the first attempts to provide a framework by offering a simple four stage process model of industrial buying. Webster admits that the model

"...is only a start towards rationalisation of the industrial buying process. There is a need for greater specificity and measurement of variables and causal relationships".

These ideas were taken further in conjunction with Yoram Wind in the form of a book on (1972) and article (1972b) publicising

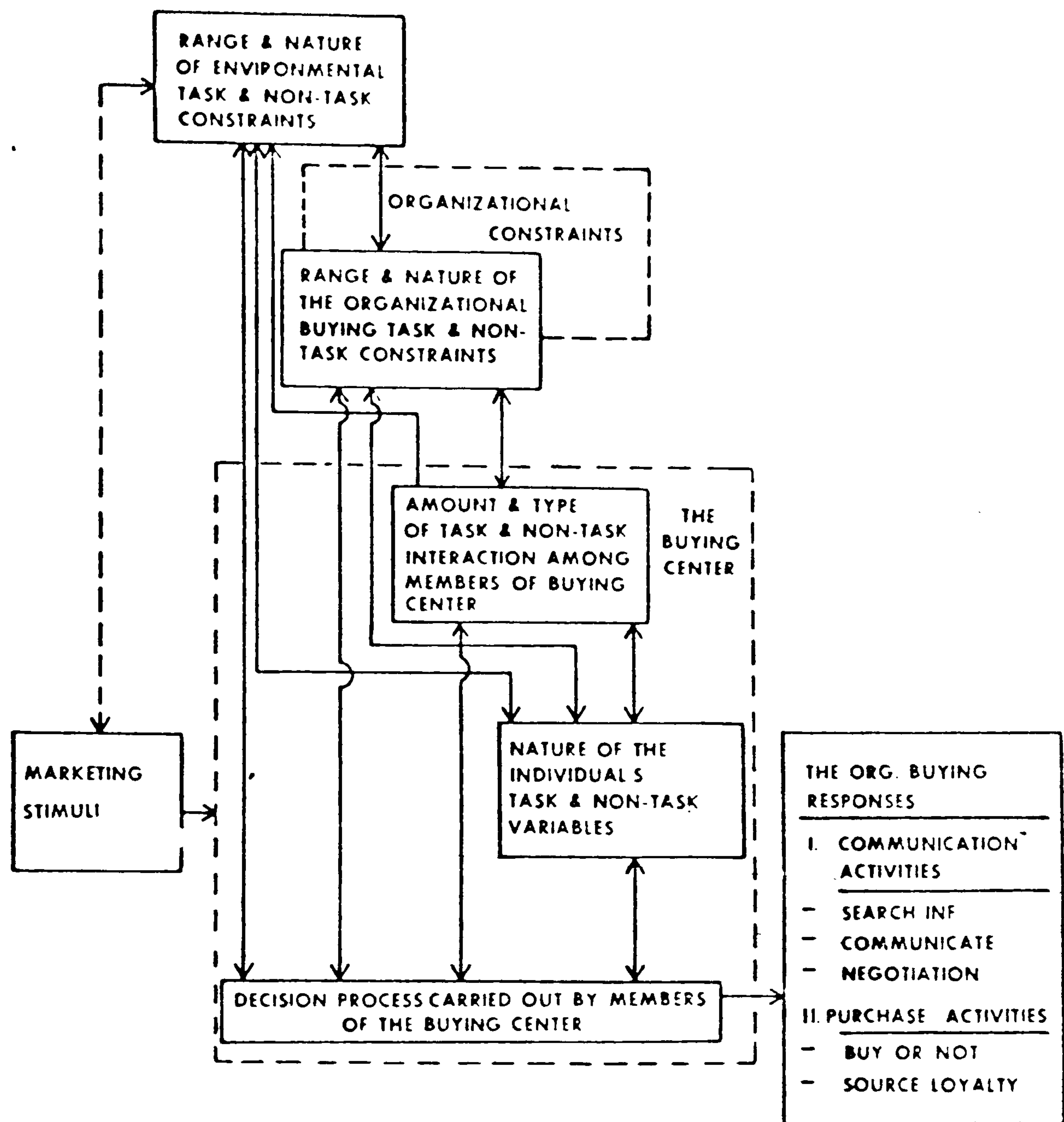


Figure 2.6: Webster & Wind Model of Organisational Buying Behaviour.

their general model for the study of organisational buying behaviour. The authors note that the earlier comprehensive consumer models of Engel, Kollat and Blackwell, Nicosia, and Howard and Sheth all have some relevance to the understanding of the buying decision processes followed by individuals within the context of formal organisations, but that they need to be modified if they are to be used as possible models of organisational buying behaviour. Webster and Wind's model (see Figure 2.6) sees organisational buying behaviour as a series of individual decisions carried out by organisational members whose decisions are influenced by four sets of variables; individual characteristics of these members, interpersonal relationships among the members of the buying centre, organisational characteristics and environmental factors. Each of these four factors can influence the buying decisions through a set of variables relating to the buying task and/or a set of variables that are not directly related to the task at hand (1972).

The decision process model is broken into four stages, Problem Recognition, Assignment of buying authority and responsibility, Search Process, Choice Process.

While discussing the Search Process, Webster (1965) states that the industrial buyer has two tasks which require the collection and analysis of information. First, the criteria against which to evaluate potential vendors must be established, based on a judgement as to what is needed and what is available. Second,

the alternative product offerings must be identified in the market.

To acquire this information Webster believes the search process itself can be broken down into interrelated steps, which are described below.

#### Search Process

1) The process starts with an evaluation of goals.

a) If the present state of goal attainment is satisfactory there is no need for search.

b) If evaluation of the goals suggests the possibility of raising them, then this makes the existing state unsatisfactory and search takes place.

2) Search continues, but not until the buyer is certain he has found the best alternative as this would require perfect knowledge. Instead the criteria set are acceptable goal levels for the purchase decision to achieve. During the search the buyer may find:-

a) One or more of the goals is unattainable.

b) Two or more of the goals are in conflict.

c) The goals have been set too low.

As a result of this new information the buyer will revise the

goals, thus setting new criteria against which to evaluate the alternatives.

3) Once the goals have been defined, and preliminary screening criteria established, the buyer searches for product offerings in the market. The first step is the identification of information sources. Webster believes that the procedures followed in this search of information sources are not well understood, but that it is likely that the search process is highly routinised. These routines, or search rules, involve selective perception and are likely to change over time due to 'organisational' learning.

Webster believed research was needed into these search rules, especially such things as the number of alternatives which must be identified before the search is stopped and the order in which particular information sources are to be used. The research which has followed Webster's model has gone a long way towards answering these questions and will be dealt with in the next chapter where hypotheses relating to search rules will be developed.

Webster and Wind accept that search will be 'constrained' or 'simple-minded', to use Cyert and March's terminology, which is defined as a tendency to search in the neighbourhood of known alternatives, and if search is not successful to consider increasingly radical alternatives and information sources.

The buyer now chooses amongst the alternatives. The way in which search has been conducted and the specified alternatives which are identified determine the final choice as much as the decision rules employed. The point is made that it is dangerous to discuss the choice processes without a consideration of the search processes because of the close relationship between the three stages of goal setting, search and choice.

When discussing the model Hill and Hillier (1977) point out that the model provides some indication of the difficulties involved in attempting to portray the complex nature of organisational buying behaviour. They state that

"It could perhaps be of more operational value if it provided some indication of the decision process, the nature of the critical factors influencing each buying decision, and the way in which individuals are involved".

Webster and Wind point out these and other criticisms when they state that it suffers all the weaknesses of general models (1972b) in that it cannot be operationalised or quantified. The purpose of the model was to enable researchers to

"evaluate the relevance of specific variables and thereby permit greater insight into the basic processes ... and be useful in generating hypotheses and provide a framework for careful interpretation of research results".

The model makes several points worth drawing out:-



1) The influence of the environment on buying decisions, in particular information of suppliers, goods, business conditions and cultural norms.

2) The importance of organisational variables, such as technology, structure and the group nature of decision making.

3) The importance of task and non task variables.

4) The nature of search, being satisficing, simplistic and incremental following search rules affected by both individual and group pressures.

5) The close relationship between search, goal setting and evaluation.

6) Search has two purposes. Firstly to determine criteria for preliminary screening, secondly to search for product offerings.

The model thus incorporates many of the points made earlier when discussing consumer decision makers and recognises that industrial buyers are simply human beings, with all their psychological weaknesses, with a further set of constraints imposed upon them by the organisational setting and organisational objectives. As such it shows an awareness of important concepts related to satisficing behaviour which put it ahead of many other authors of the time.

## The Sheth Model

Sheth (1973) provides a descriptive model designed to aid industrial market research by reconciling and integrating existing knowledge. As with Webster's model it focuses on the industrial buying process and attempts to show the variables involved and their interrelationships, following the framework adopted by Howard and Sheth in their model of buyer behaviour.

The industrial buying process is affected by product specific factors, company specific factors and factors relating to the individual. Sheth combines these individual factors in the psychological world of the decision makers. He specifically recognises the group nature of industrial decision making, and includes the search process in this psychological world. These three major inputs decide whether a joint or autonomous decision will be made. If joint, then conflict resolution strategies will take place. (Figure 2.7)

While Sheth recognises that industrial buying decisions are not solely in the hands of purchasing agents he has been criticised for his choice of individuals in his decision making unit, namely purchasing, quality control and users. There is also no justification for his choice of variables which effect the expectations of these decision makers, while excluding other perhaps equally important concepts.

Search is seen as part of the psychological world which help

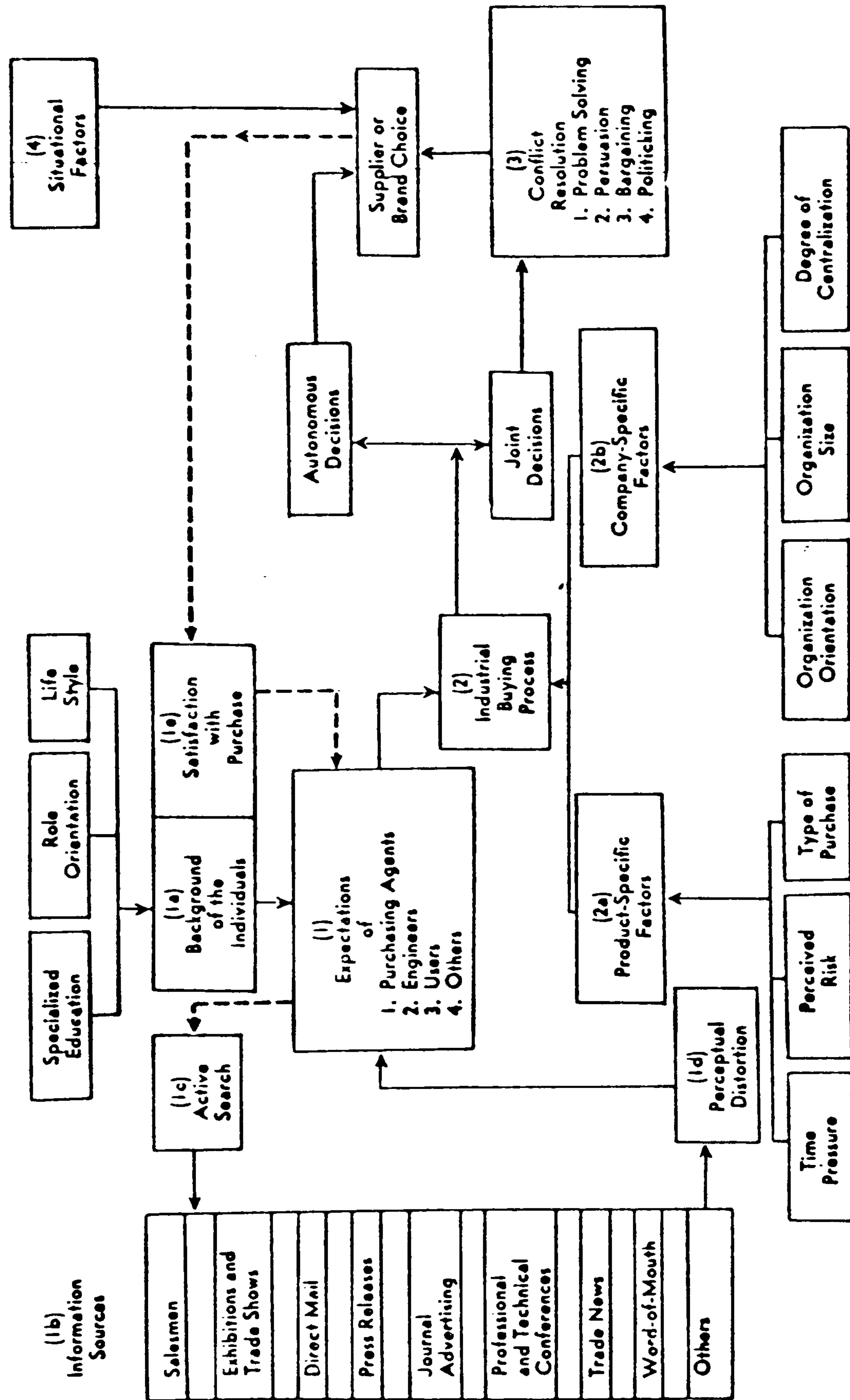


Figure 2.7: Sheth's Integrative Model of Industrial Buyer Behaviour.

build up expectations (or criteria) but is separated from the process of conflict resolution. In reality information is power and individuals occupying gatekeeper roles will use this information in any evaluation stage.

While Sheth has accepted the general trend of the early seventies that the group must be studied, that individual variables similar to consumer models must be included, that power positions and conflict resolution will effect final choice, his actual conceptualisation does little to advance the study of organisational buying.

#### Choffray and Lilien Model

Jean-Marie Choffray and Gary Lilien attempted to build an operational model of organisational buying which isolated the major variables affecting organisational decisions and relate them in an explicit way to controllable marketing variables. They claim that their model focuses on the links between the characteristics of an organisations buying centre and the three major stages of the industrial purchasing process, which they believe are;

- 1) Elimination of alternatives that do not meet organisational requirements.

- 2) Formation of decision participants preferences.

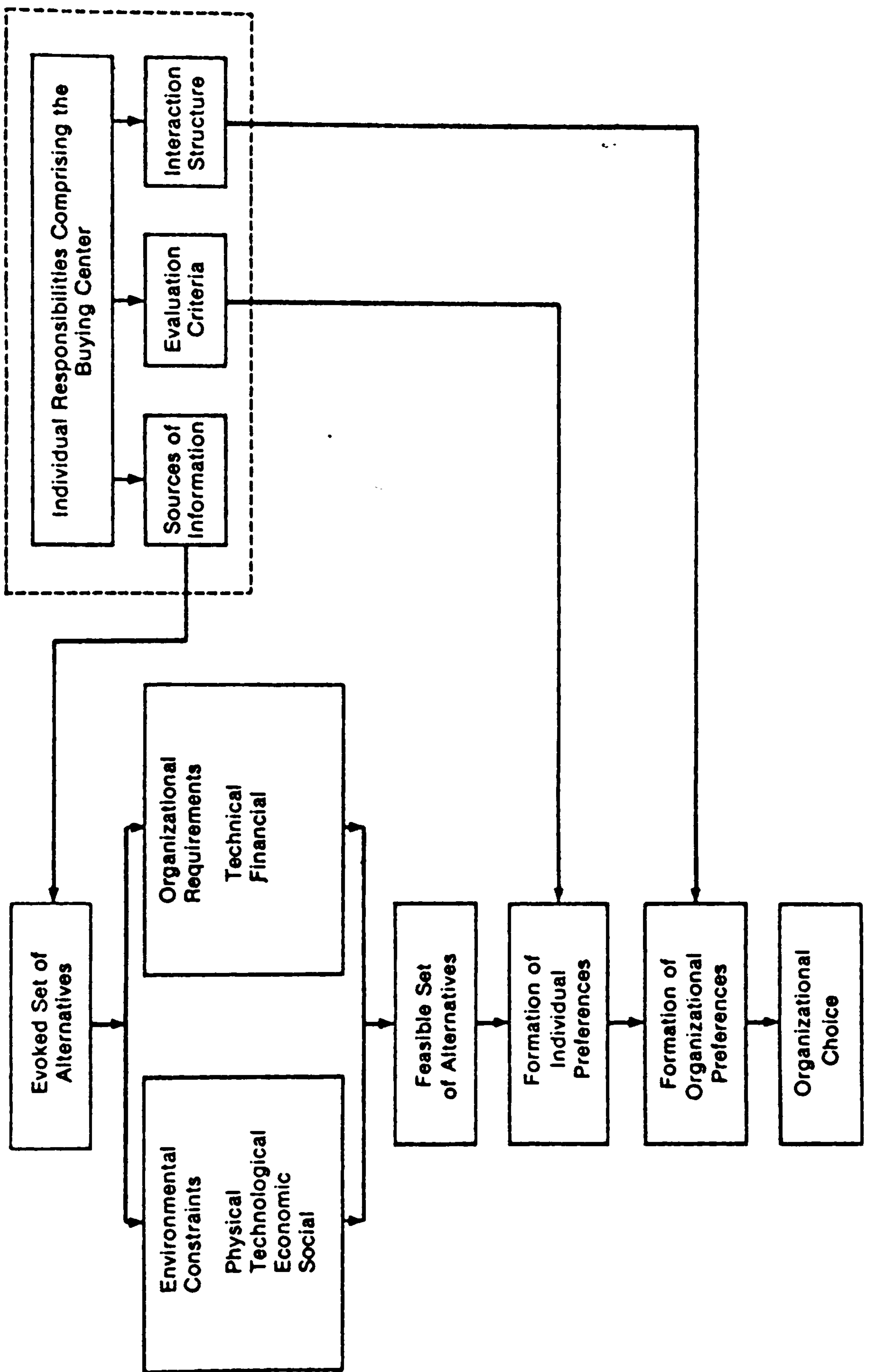


Figure 2.8: Chaffray & Lilien Model of Organisational Buying Behaviour.

### 3) Formation of organisational preferences.

The model (Figure 2.8) can be seen to have five stages through which a decision passes, namely;

Evoked set of alternatives

Feasible set of alternatives

Formation of individual preferences

Formation of organisational preferences

Organisational choice

This simplistic model is effected by organisational and environmental constraints and individual preferences. To operationalise the model four sub-models are created which closely parallel the above conceptualisation. These sub-models - Awareness, Acceptance, Individual Evaluation and Group Decision - are linked together by a series of probabilities of response such that a general expression of the likelihood of organisation choice is given.

The approach adopted by Choffray and Lilien is similar to that used by McGuire (1976 ). In his model the behavioural steps in being persuaded are given in an information processing approach to the communication-persuasion process. He also links the probabilities of passing through his sub-models into a probability of payoff behaviour, and focuses on the methodological considerations in collecting the empirical data to feed into the probability model. Choffray and Lilien do not

consider the process in such depth as McGuire but conceptually the approach is very similar. Despite its superficial complexity Choifray and Lilien's model is therefore a form of hierarchy of effects model, with a sub-model attached to allow for group decision making.

Search Behaviour is not dealt with explicitly in the model although information inputs are an important part of the sub-models. Awareness of products and media consumption patterns are inputs into the Awareness sub-model. The Individual Evaluation sub-model requires an individual to judge the product on a number of criteria, as does the group decision model. This suggests an implicit incremental decision process. Firstly, out of all possible brands an evoked set is created. This evoked set is then judged against constraints and requirements to ascertain its feasibility, using a conjunctive approach, i.e. the product must fall into the acceptance region along each of its dimensions. Finally the remaining products are evaluated against a set of criteria using whichever information processing model is felt to be applicable.

The model can be considered from two viewpoints. Firstly is it successful in predicting sales in the marketplace, or secondly is it an adequate representation of the organisational buying process. The first question can only be answered by empirical testing and comparison to other market response models. The validity of the various sub-models can be tested by analysing the

contribution they make when added or dropped from the total model. From this viewpoint Choffray and Lilien's model should be compared to Fishbein's extended model in the consumer field, rather than Howard and Sheth's.

From the second viewpoint the model must be analysed to investigate whether the model is consistent with current knowledge. It is from this viewpoint that the model can attract most criticism, e.g. Environmental constraints and organisational requirements are taken as fixed variables and interaction between these and the individual or group evaluation model are not allowed for. The interactive political processes highlighted by Pettigrew (1974) and Strauss (1962) are therefore ignored, as is conflict resolution in the first three models. Similarly the sequence of the group decision model following the individual model is suspect, as this suggests that 'individual participant categories' make a decision which is then fed into the group model, where some form of conflict resolution takes place. In practice these two processes will be interactive and parallel in time.

The model generally suggests a one way flow, with no allowance for feedback or sequential introduction of alternatives. It does not investigate how criteria are set or acceptance levels decided upon. Similarly no guidance is given as to how some products are included in the evoked set and others excluded and the important role of past experience is ignored.



The overall criticism is that the model is an inadequate representation of the industrial decision process, and it is questionable whether it is any more than a framework for linking market research data into market strategy considerations, using a sampling process they call micro-segmentation.

### The Baker Model

An alternative to the flow-chart approach to modelling purchase behaviour has been proposed by Baker. This model was originally an attempt to understand the process of industrial innovation and adoption but has developed over the years into a composite model of buying behaviour. Baker argues, as does this thesis, that the attempt to distinguish between individual and organisational buying behaviour by emphasising the qualitative/subjective nature of the former and the quantitative/rational nature of the latter, is largely spurious.

His model attempts to combine both economic (rational) factors and behavioural subjective factors in what he sees as a sequential process. The most recent (Baker 1985) exposition of his model is given below;

$$P = f]SP (PC, EC (Ta-Td), (Ea-Ed), BR)]$$

Where,

p = purchase

f = a function (unspecified) of

SP = selective perception

PC = precipitating circumstances

EC = enabling conditions

Ta = technological advantages

Td = technological disadvantages

Ea = economic advantages

Ed = economic disadvantages

BR = behavioural response

He states that PC is equivalent to awareness, EC to interest, (Ta-Td) and (Ea-Ed) represent evaluation, and BR dictates the action taken. This differs from a slightly different earlier model where EC signifies "a need, awareness of a possible means of satisfying it and the resources necessary to acquire a supply (of such means)." PC, in the earlier model, represents those circumstances "which move the felt need up one's scale of needs/preferences to a point where one will actively consider means of satisfying the need". The evaluation and behavioural action stages stay the same but a new variable of selective perception is added to the beginning of the model to stress its importance in mediating the other variables.

A critical review of Baker's model is given by Foxall (1980) when he applies the criteria of descriptiveness, delimitation, generation and integration to the model. He states that the model is guilty of tautology, that Baker proposes summary variables without a clear idea of what they summarise. Further, that relationships are untestable, the model does not achieve integration and makes arbitrary assumptions about sequence.

Foxall concludes the model is "pre-scientific and pre-paradigmatic".

Not surprisingly the attack was soon answered (Kennedy 1981) who contended that the Baker model could meet the four criteria generally considered relevant in assessing the scientific status of theoretical models. She argues that Foxall has a misconception of the model and it is unrealistic to strive for "utopian models". She expands on research which supports the model and answers some of Foxall's criticisms regarding its lack of precision in defining variables and relationships and lack of predictive ability. An unrepentant Foxall (1981) replied and restated and expanded his criticism regarding lack of specification of relationships and variables.

#### **Conclusion to industrial section**

These models are of a much simpler nature than the previous consumer models. The Webster and Wind model was really a framework for their book in the Foundation in Marketing Series and was a synthesis of established theories of organisational behaviour. The value of this model is this organisation of what was known at the time which highlighted where further work needed to be done. It thus served a similar function to the EKB model. The Sheth model is extremely limited and serves no real purpose in guiding research or in synthesising knowledge. The Choffray and Lilien model does try to build on previous work and is a useful attempt to build a model which could be tested and used in

an attempt to explain and predict behaviour. It is unfortunate that they did not develop their model further or empirically test its predictive or explanatory ability. The Baker model similarly gives useful insights into the buying process and while limited in its consideration of actual variables is perhaps more useful in its focus on the process of decision making and its attempt to integrate both consumer and industrial orientations.

The industrial field seems to agree with the consumer model that decision making is sequential, incremental, satisficing and goal orientated. In particular the Webster and Wind model incorporates many of the concepts which will be discussed later.

#### **FAMILY MODELS**

The marketing theorists have shown little interest in building a model specifically of the family decision making process, mainly because existing models of the individual decision process normally allow for interpersonal influence on an individuals choice behaviour. The family decision making literature therefore tends to focus on those elements which are specific to the family, rather than the individuals within the family. The group nature of decision making is emphasised, (Atkin 1978, Berry and Pollay 1968, Coulson 1966) with attention being focused on the roles that individuals play (Davis 1970, 1971, 1976, Davis and Rigoux 1974, Jaffe and Senft 1966, Kenkel 1957, 1961, Shuptrine 1976, Scott 1976, Tharp 1963), and the influence and

power that occupants of these roles command (Bahr 1972, Blood and Wolfe 1960, Safilios-Rothschild 1970, Turk and Bell 1972, Werbel 1976, Wilkes 1975).

The interaction of these roles (Brown 1961, Kelly and Egan 1969, Vidich 1956), the resolution of conflict between them (Clawson 1961, Morgan 1961, Pollay 1968), and their changing nature (Cunningham and Green 1974) and the many variables affecting them, such as class (Fry and Siller 1970, Komarousky 1961), family life cycle (Ferber and Lee 1974, Heer 1963), type of product (Munsinger et.al. 1975) and stage of decision process (Hempel 1974) have all been studied as areas of interest to family decision making.

This can be compared to the flush of interest in the industrial field when the Decision Making Unit became an important concept with authors (Buckner 1974, W. Fletcher 1978, Weigard 1966, 1968, Wind 1978) stressing the diversity within the D.M.U. and attempting to identify the 'purchasing influence' (Lister 1967, Cooley 1978). As with the family decision maker, types of roles existing within the D.M.U. are said to affect the type and amount of conflict (Sutcliffe and Haberman 1956) and that 'lateral relationships' (Strauss 1962) are as important as 'hierarchical relationships'.

Arrow (1951) draws a similar analogy between the theory of the firm and consumer behaviour when he says,

"The unit of the theory of production is not really the individual, but the firm, which is an operating organisation of individuals. Similarly, the unit of a theory of consumption is really the household, not the individual".

## Power and authority

Wolfe (1959) provides a seminal article on power and authority in the family when he offers a conceptual analysis of power and authority in general, and presents a diagrammatic model with which to compare various family authority structures. This model will be briefly discussed later. C. Safilios-Rothschild (1970) and H. Davis (1976) both give excellent reviews of the literature in family decision making and the interested reader is directed to these studies.

### Types of Family Authority Relationship

The following description is based on Wolfe's 1959 article. He believed that in the family behavioural field the husband has a range of authority, the wife has a range of authority, and a range of authority is shared. Authority relationships may differ from family to family in at least two respects: the extent of the ranges of authority of the husband and wife, and the extent of the shared range of authority. The husband's range may be larger than, equal to, or smaller than the wife's range.

The Relative Authority of husband and wife is the ratio of the wife's range of authority to the husband's range of authority.

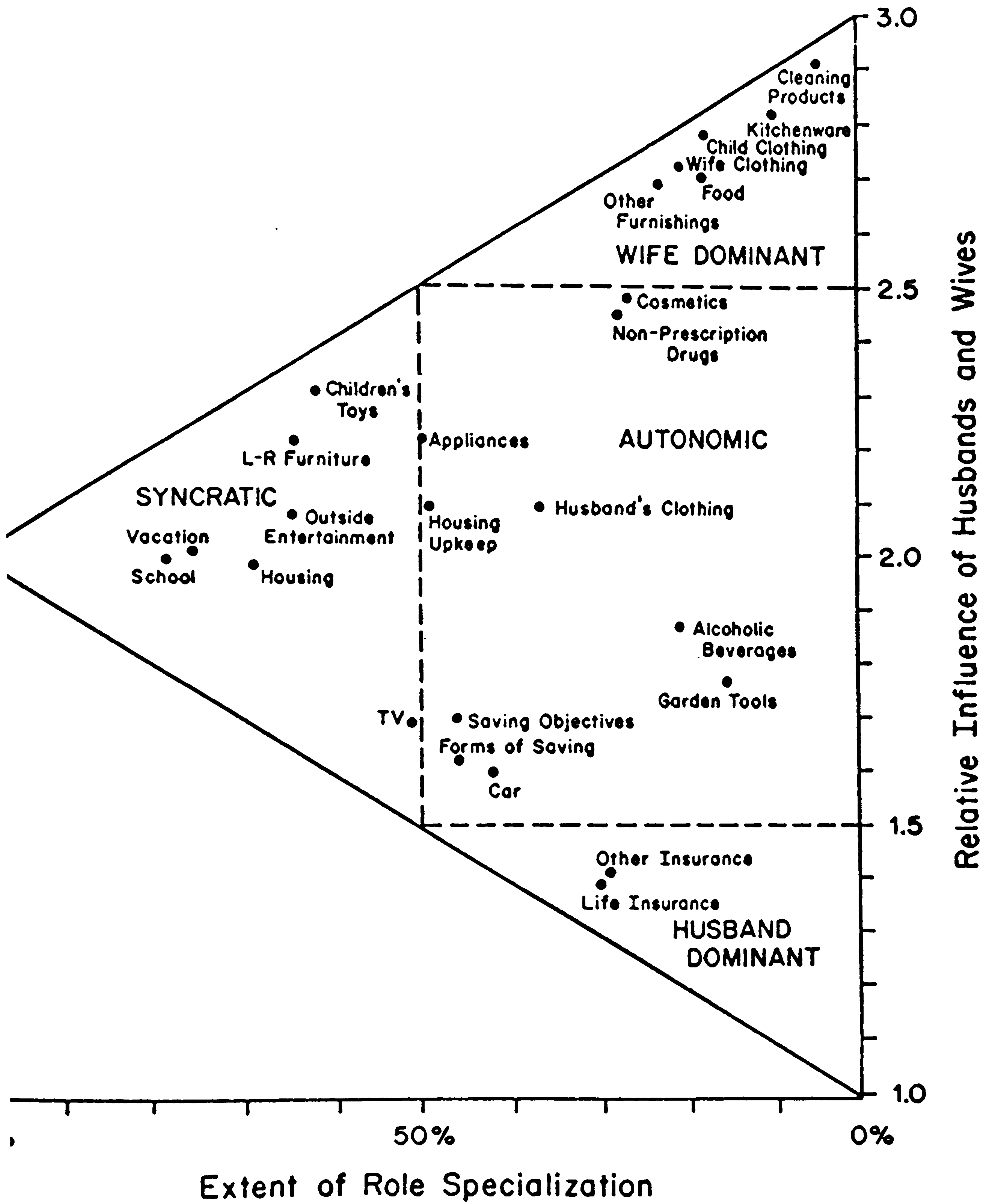


Figure 2.9: Authority Relationships of Husband and Wife.

The degree of Shared Authority in the family is the proportion of behavioural regions of the family field which are in the shared range of authority. Figure 2.9 gives a graphic model of the possible distribution of authority relationships of these two dimensions.

The dotted lines of the graph arbitrarily divide the distribution of authority relationships into four types:

a) Wife Dominant is made up of those families in which the wife's range of authority is considerably larger than her husbands.

b) Syncratic type is made up of those families in which there is nearly a balance of relative authority and the shared range is equal to or greater than the combined ranges of the husband and wife.

c) Autonomic type also has nearly a balance of relative authority but the husband's and wife's ranges together are greater than the shared range.

d) Husband dominant type is an authority relationship in which his range of authority is considerably greater than his wife's.

The majority of studies concern themselves with placing respondents in one of these four types and analysing the variables which influence this categorisation.



The conceptual structure given by Wolfe has meant that little has been written in the family field of direct relevance to the decision process of search behaviour but Hempel (1974), Davis and Rigoux (1974), Wilkes (1975) have found that roles change over the decision process, and that the wife may search within rules set down by the husband (Kelly and Egan 1969).

Davis and Rigoux (1974) used a three stage model in their investigation consisting of Problem Recognition, Internal and External Search, and Final Decision. They decided to eliminate the alternative evaluation stage of the classic conceptualisations as they believed that consumers actually evaluate information simultaneously with search. Elimination of the alternative evaluation stage was also motivated by the practical difficulty of asking the respondent to break down his decision making into many different stages, as the consumer is probably not aware that he passes through these stages.

Wilkes (1975) uses Problem Recognition, Search for Information, Final Decision, and Purchase in his extension and confirmation of Davis' work (1971). He claims that the model was found to be plausible and to have face validity as well as logical consistency.

Until the emphasis changes from the individual to the group decision making process no theory of family decision making will emerge, nor will research findings build upon one another until

the nature of these processes are made explicit. The ongoing nature of family relationships, the inter-relatedness of their consumer choice, and its effect upon authority and influence, must all be understood before a general model can be built.

Despite this attempts have been made to build such models, although they have not received the publicity or research attention of the consumer or industrial models.

## Fisk Model

Fisk (1961) created a model showing the determinants of Goal Directed Customer Behaviour consisting of three main elements of a sequence - Want arousal, Drive states and Goal Directed behaviour.

Want arousal is by "Precipitating Circumstances", or "cues", which are described as changes in:-

- a) enabling conditions
- b) buyer's situation
- c) retail shopping environment

These interact with predispositions based on cognitive processes and are affected by preferences, expectations, aspirations, norms and plans.

A Drive state is then entered, i.e. a motive is aroused, leading to instrumental behaviour such as market searching in stores and acquiring information through W.O.M. and advertising.

"To reach the next state the customer must be 'ready to buy' due to precipitating circumstances. She must be 'willing to buy' because of certain expectations buried in her memory. She must be 'able to buy' due to economic and physical enabling conditions and other frame of reference variables."

The consumer is now ready to patronise a particular store, purchase a specific product and then consume it.

The effect of the family can be seen in the three initial concepts listed under "precipitating circumstances" i.e. house type, dwelling area, family size and economic enabling conditions, but no specific attention is paid to the role of the family.

Fisk's model emphasises the attitudinal change which must take place before purchase and thus follows the decision process approach but its main focus is in showing the constraining effects of situational and environmental variables, or enabling conditions and the role of precipitating factors.

#### Talcott Parsons Theory of Action

Jaffe and Senft (1966) use Talcott Parsons's 'Theory of Action' to analyse the role interaction between husband and wife in the consumption cycle, during brand selection for high priced durables and low priced routine purchases. The model consists of four phases (Figure 2.10), and proceeds in a clockwise direction starting in the 'L' or Latent Phase, which is a state of equilibrium. A stimulus will move him from this state to the next, where he 'adapts' to the outside environment, drawing upon learning and experience. The latent phase is the beginning of a sequence, but also the end. It is therefore at this point that 'tension management' occurs which is a balancing out of the advantages and disadvantages of action, and a comparison of the most recent experience with all those of a similar nature which have taken place in the past. This summing up consciously or

unconsciously develops a state of mind which to a great extent controls the messages the consumer is willing to accept. It thus governs whether or not such messages will become positive stimuli for action at a subsequent point in time.

In the Adaptive Phase elements related to the action in the outside environment are used as a means to carry out the goal - the action itself - which takes place in the succeeding phase. The adaption is therefore a means to an end, the purchase of a chocolate bar to end hunger pangs. Goal Achievement is the overall system objective. It is possible for an act to be in both phases however. Shopping for food can be adaptive, a means to an end and a chore, but window shopping can be an end in itself and a pleasure.

The Integrative Phase occurs after goal achievement has taken place but before final summing up. Goal achievement is consolidated in satisfying situations or rejected when it is not satisfactory.

#### **Pattern Variables**

Moving across each boundary between phases of action involves very specific psychological 'push' and 'pull' factors. This involves what Parsons refers to as pattern variables, which hold back or push one over a boundary which separates each phase. Understanding specific combinations of pattern variables at each boundary provides the communicator insights into what must be accomplished psychologically to move a consumer across a

ADAPTIVE (Purchase) A	GOAL ACHIEVEMENT (Use) G
LATENT  L	INTEGRATIVE (Consolidation) I

Figure 2.10: Talcott Parson's Theory of Action

boundary, and how close to movement the consumer is at that stage.

#### Levels of Commitment

A consumer with low stability after having passed into a stage of the system is likely to have low commitment to a brand, whereas a consumer with high stability is likely to have a high commitment.

A special structure in the form of a spiral staircase can be built on top of Parsons' model. Each step represents a new level of commitment. The first step, or least positive commitment occurs above the 'latent' quadrant. Certain elements are required to reach this level of commitment. They are identified by the point of view one attains due to the psychological involvement one has which relates to the pattern variables associated with this phase. The second step - the next level of commitment - occurs above the 'Adaptive' quadrant. The staircase builds through five steps, one over each quadrant, with re-entry to the 'Latent Phase'. The consumer who reaches this fifth level of brand commitment has total brand loyalty.

Jaffe and Senft suggest that to carry out the households functions in household management the husband/wife dyad will perform many different roles during the four phases of Parsons' model. The roles of interest in this study are 'Information seeking' roles which they found to cover all phases and which

occured at any point in the process. They found that shopping and buying were often shared experiences, with much exchange of information between husband and wife. They often took complementary roles, each being dominant at different times depending on the type of product being purchased. This coincides with the proposition suggested earlier when discussing power and authority.

The suggestion that there are psychological barriers at the interfaces of phases is a further indication that decision making will not be adequately explained by a linear model. Catastrophy theory allows a mathematical and graphical representation of this but as yet there are no computerised packages capable of handling the theory to allow its empirical testing. This barrier, or resistance to exert cognitive effort by moving to the next phase, is a likely event and is compatible with the ideas of reducing effort and avoiding cognitive stress that we are developing.

The model again suggests a sequence of activities that must be completed during the decision process and the idea of psychological commitment as a person moves through the quadrants and up the spiral staircase is an interesting idea. Search behaviour is thus part of a persons adaption to the changed outside environment and is linked to experience and learning in the Latent phase and is affected by pattern variables.



## Granbois Model

Granbois (1962) suggests a decision process model which he relates to the purchase of consumer durables, using the household as the unit of analysis. He identified four phases of the decision process within the family:

- 1) Problem recognition
- 2) Search and deliberation
- 3) Selection and outcome
- 4) Post purchase behaviour

### Problem Recognition

Granbois suggests that the beginning of the decision is triggered by precipitating circumstances creating a perceived disequilibrium between the families present and its desired assortments, and by the expectation that 'enabling conditions' will permit purchase. Both factors must be present for purchase intentions to grow.

### Search and Deliberation

The degree of search and deliberation preceding purchase is a function of the value of 'new information' and the cost of acquiring it. The more the value of information exceeds its cost, the greater the degree of search and deliberation. The value of this information will vary inversely with the amount of stored information available through past ownership or use of the product, or past contact with others who have had experience in owning or using the product, and directly with the number and

heterogeneity of alternatives available.

This is the normal economic approach of rationality, and is summed up by the rule suggested by Stigler (1961) that search will continue to the point where the cost of an additional unit of search equals the expected savings anticipated from additional search, which is approximated by the quantity to be purchased times the expected reduction in price as a result of search. Later empirical research has not been able to validate the predictions of this normative model.

#### Selection and Outcome

This stage includes both the process of evaluating alternative products and the outcome of that process, whether or not a purchase is made and if so which alternative is selected. The criteria used in this stage are seen as dependent upon such things as income, class, value orientation, aesthetic concepts and susceptibility to change. Taking the idea from image research that consumers are 'matched' with products, individuals being attracted by symbolically suitable objects and repelled by the unsuitable, the strength of an image varying with the degree of product differentiation.

#### Decision Outcomes

At this stage unanticipated circumstances may interrupt the decision process, or lead to a purchase which has not been preceded by full search and evaluation. Intention to purchase is seen as a good indicator of purchase but is effected by such things as unanticipated circumstances, length of planning period,

effect of previous purchase experience, and brand awareness and comprehension.

#### Post Purchase Behaviour

Post-purchase dissonance is likely to lead to the search for supportive information after the purchase, depending on the individuals level of self confidence. Satisfaction with a durable goods purchase was thought to vary directly with the amount of information seeking preceeding a purchase, the degree to which long range consequences were considered, the amount of family discussion, and the degree to which a policy is referred to or created to cover a decision. The amount of effort expended in the decision is in itself therefore a determinant of satisfaction.

Power, influence and participation in shopping and deliberation have been studied in family decision making. Granbois suggests that these should ideally be combined into a single model of family role structure that would be applicable to family decisions, but reflect the fact that not all decisions affect more than one family member, and that at certain times, husbands, wives and children make decisions as individuals. However the preference structure of more than one member is involved in a large proportion of decisions and the nature of participation may depend upon the degree of compatibility of preferences, and such variables as cost of the product, family income, degree of role specialisation, stage of family life cycle, resource contribution, social class, stage of decision process, and method

of conflict resolution. It will be noticed that these are very similar variables to those suggested in the industrial models of decision making, due possibly to Granbois' economic orientation. This is also evident in his consideration of precipitating circumstances and enabling conditions which are similar to the ideas of Fisk.

The Granbois model therefore incorporates many concepts which have been met before and gives some additional insights. It is spoilt perhaps by the excessive importance placed on the cost/benefit of search element of deliberation but suggests a proposition which will be encountered again in a later chapter 1) search will vary inversely with the amount of stored information and previous experience, 2) search will vary directly with the amount and homogeneity of alternatives available.

#### J.N. Sheth's theory of Family Buying Decisions

✓ Sheth (1971, 1974) introduces his theory as "an attempt to specify parameters of family decision making in consumer behaviour and to integrate diverse findings by means of a nomological network of constructs". As with his industrial model it looks quite similar to the Howard and Sheth theory of buyer behaviour. The similarity is "true with respect to the format of the two theories, and only partly true with respect to both the type of constructs and their network of relationships".

The model once again has a perceptual subsystem and a learning

subsystem and a black box signifies the decision process. Exogenous variables of a product specific type identical to his industrial model are included, while he adds one or two individual variables such as personality and sex. He again splits the decision into autonomous and joint but deals with conflict resolution in the text rather than as a separate box in the model. Like Webster and Wind he turns to March and Simon (1959) for help with the analysis of interpersonal conflict, showing the transferability of concepts across the industrial/consumer boundary.

Overt search is linked to sources of information, perceptual bias, the sensitivity of information which constitute the perceptual subsystem.

The model suffers from being too closely related to Sheth's industrial model and the Howard and Sheth consumer model, without incorporating sufficiently the work of other researchers and model builders in the field. It thus adds little to our understanding of family decision making although in discussing family buying decisions Sheth draws upon empirical research to support his contention that "many products are actually bought by the housewife acting as the purchasing agent for the rest of the family; thus the consumer member exerts his preferences but does not himself do the buying". Alternatively, the buying decision may be a completely autonomous act of one member, although the consumption is joint by the whole family.

The similarity between this type of decision making and the

industrial situation should be clear. Since there is no one to one relationship between the type of consumption and the type of family decision making the product and individual specific variables must be examined to explain the differences as in his industrial model. Search behaviour is dealt with in the family context by the recognition that different family members will have access to different information sources, and will perceive and process this information in an idiosyncratic manner because of the individuals predispositions and the individual specific effect of certain exogenous variables.

#### Conclusion to family section

The family models are of a similar general nature to the previous consumer and industrial models. The research demands of investigating the family rather than the individual decision process has resulted in little real attention being paid to this area by main stream academic journals, yet many of the ideas suggest interesting approaches to analysing the purchase situation and the influences which constrain and support the buyer at the point of purchase.

## CONCLUSION

Howard and Sheth attempted to create an empirically testable model, Nicosia a model capable of being handled by a computer, and Engel Kollat and Blackwell a model as a structure for an M.B.A. course. Nicosia's model has not been developed further but Howard and Sheth's model and Engel Kollat and Blackwell's model have drawn closer together over the years. Bettmans model has gained less attention than its predecessors and suffers from the same faults as all the general models in that it is too general, often cannot be operationalised and is best used as a stimulus for ideas and a guide to research.

The Industrial general models have benefitted from the consumer models that went before but have not been able to draw upon such a wealth of empirical research. Sheth uses the same approach as in his consumer model while Webster and Wind are closer to Engel Kollat and Blackwell's approach of providing a useful framework for further study and research. Choffray and Lilien fall midway between the two approaches with an operational model aimed at aiding the development of marketing strategy. Baker attempts to integrate both organisational and consumer buying behaviour, (and then is criticised for being too general and vague).

Family models are not so well conceptualised as in the consumer or industrial field, most attention being focused on role differentiation, specialisation and interaction. While family models have had the opportunity to draw upon both the consumer

and industrial field this does not seem to have happened to any great degree. The models do tend to show a greater awareness of the importance of situational factors and role specialisation but no integration of approaches has taken place.

To summarise the discussion so far. It has been suggested that decision making can be viewed as a system, i.e. a process in time consisting of interrelated parts, and that search behaviour is an integral part of this decision process, effecting the final decision. Further, that this systems approach of a decision process model can be applied to all purchases.

To develop an acceptable model of the decision process the model must be generalisable and transferable, but not so general as to lose descriptive or explanatory power, or not be capable of operationalising. The model must recognise that decisions are incremental, as is search behaviour, and is of a group nature effected by task and non-task variables.

The role of learning and adaption must be considered, along with group interactions and influence. This will allow for the study of role behaviour in decision making, such as the information collecting role, gatekeeper role, etc., and the analysis of the effect of power and authority of the role holder on the information processing. This is an area where organisational theory and family decision making overlaps.



Having seen how theorists have considered decision making and the role of search in general models we shall now look at 'models' dealing specifically with the decision process in both industrial and consumer situations. These models are often simplistic in that they are forced to ignore the external variables which influence the decision process and in the search for ease of comprehension often only hint at the complex interactions and relationships which exist. However they are the foundation for the later more indepth consideration of decision processes and have influenced the direction of research over the years.

Since the development of these ideas in the sixties and seventies and the recognition of their deficiencies researchers have moved away from the attempt to create all encompassing models and instead have moved towards more sophisticated theoretical approaches. In the industrial field this can be seen in the customer-active paradigm, where an interactive process takes place between customer and manufacturer, with the customer often taking the initiative, often as early as idea generation in the new product development process. (von Hippel 1977)

In the consumer field the cognitive approach has been taken even further and a Cognitive Information Processing Paradigm become the dominant viewpoint. While the nature of information processing is of obvious importance to understanding consumer choice this research does not focus entirely on this area to the exclusion of other areas. Instead we next review the development of process models of buyer behaviour, which presume information

processing, and incorporate the relevant concepts in chapter three when we present our model.

#### SIMPLE PROCESS MODELS OF BUYER BEHAVIOUR

The previous general or global models have often had a decision process as an integral part of the model, but often only as a black box. This section will review some of the decision process, or "hierarchy of effects" models which attempt in diagrammatic form to explain the process within this black box, and to again consider their similarities and differences and common assumptions. We shall first study the various approaches taken in the consumer field and then move on to consider process models which are meant to cover the industrial buying situation.

##### Consumer Decision Process

This decision process approach suggests that certain mental and physical activities are involved in solving a consumption problem. Consumers are seen as responding to needs or wants by conducting goal striving behaviour. This means that consumers seek goals and solutions to problems and must therefore:-

- 1)Recognise and become aware of a problem
- 2)Search for information
- 3)Process and evaluate information
- 4)Explore the consequences of certain alternative behaviour
- 5)Make a decision and eventually reflect on the consequences of that action.

These stages are sequential and reiterative although the models we are about to discuss often do not allow for this. The decision process approach also believes that a problem is solved when the consumer perceives it to be solved, therefore problem solving relates to the perceptual and cognitive activities of an individual.

John Dewey in 1910 was one of the first people to consider the stages of decision making and described them as :-

- 1)A difficulty is felt
- 2)A difficulty is located and defined
- 3)Possible solutions are suggested
- 4)Consequences are considered
- 5)A solution is accepted

This forms the basis for many simple models of the decision process with discussion taking place as to the actual stages in the process, their universality for all decision makers in all situations, whether the stages are sequential, whether any stages can be missed or combined, the time spent in the various stages and the factors influencing the process.

Strong, in 1925, suggested a model which is perhaps the most widely quoted with the sequence Attention - Interest - Desire - Action (AIDA). E.M.Rogers (1962) suggested a diffusion model with the steps Awareness - Interest - Evaluation - Trial - Adoption which has an obvious similarity but it is perhaps Lavidge and

Steiner (1961) and Colley (1961) who had the major impact during the sixties.

Lavidge and Steiner in a brief article pointed out that consumers

"normally do not switch from disinterested individuals to convinced purchasers in one step. Rather they approach the ultimate purchase through a process or series of steps in which the actual purchase is but the final threshold. "

They suggested that advertising can be thought of as a force, which must move people up these steps. They describe the sequence as follows;

1) Near the bottom of the steps stand potential purchasers who are completely unaware of the existence of the product or service in question.

2) Closer to purchasing, but still a long way from the cash register, are those who are merely aware of its existence .

3) Up a step are prospects who know what the product has to offer .

4) Still closer to purchasing are those who have favourable attitudes towards the product -those who like the product.

5) Those whose favourable attitudes have developed to the point of preference over all other possibilities are up still another step.

6) Even closer to purchasing are consumers who couple preference

with a desire to buy and the conviction that the purchase would be wise.

7) Finally is the step which translates this attitude into actual purchase .

They point out that the steps are not necessarily equidistant, that a potential purchaser may move up several steps simultaneously, and suggest the hypotheses that the greater the psychological or economic commitment involved the longer it will take to bring consumers up these steps, and contrariwise, the less serious the commitment the more likely the consumer will go almost "immediately" to the top of the steps.

They also make the point outlined earlier that these six steps relate to the Cognitive, Affective and Conative behavioural dimensions and thus the relevance of promotion will vary in the different stages and different measurement techniques are required.

This idea was taken even further by Colley (1962) whose sequence Unawareness - Awareness - Comprehension - Conviction - Action is usually referred to as Dagmar after the initials of the book publicising the model : Defining Advertising Goals for Measured Advertising Results.

His book makes the point that advertising goals are virtually always communication goals and thus sales in themselves were not

a good measure of success. He went on to argue that objectives should be clearly stated and should be aimed at the communication effects that were wanted, based on his hierarchy of communication effects as given above.

Hansen (1972) has provided a summary of 28 basic models of consumer behaviour most of which he believes deal with five different steps in the decision process, as listed below.

- 1) Problem Identification
- 2) Information Search
- 3) Evaluation of Alternatives
- 4) Choice
- 5) Post Choice Processes

Most of these 28 models include all of these stages, sometimes specifying one or more steps within each stage. Other models cover only three or four of the stages.

The major problem is that some researchers focus on how a person is persuaded by a communication and are thus interested in the way a message is incorporated into the cognitive structure and Long Term Memory and others take a broader view. Thus Sternthal and Craig (1982) produce a model which seems at first glance to be a normal process model but in fact is purely an information processing framework. Others ignore the psychological processes at work and describe the behavioural activities which can be viewed. Whereas the psychological state models can be generalised

across many situations the activity models are often only relevant to the specific situation or problem under study. This lack of transferability is most noticeable in the industrial models to be considered later as they are all activity based models.

The three main psychological states which can be recognised are the Cognitive, Affective, Conative sequence. The Cognitive stage relates to the knowledge and awareness dimension of behaviour. It implies behaviour is a function of knowledge, values, ideas and images and to facilitate behaviour marketers must provide information and knowledge that triggers and facilitates these cognitions. The Affective stage relates to the emotional states of the individual. Consumers must be taught to like or prefer one brand over another. The Conative stage relates to a striving state, or motivational state of the individual and stresses the tendency of consumers to treat objects (goods and services) as positive or negative goals. Behaviour is thus goal orientated and a learning hierarchy.

When a person or firm attempts to influence the decision process and hence the behaviour of that person a chain of processes must be initiated. A particular cognitive structure must be created, a particular motivational structure must be created and a particular behavioural (action) structure must be created.

"In other words, behaviour is determined by the beliefs, opinions and 'facts' a person processes, by the needs, goals and values he has, and by the momentary control he has over his behaviour by given features of his cognitive and motivational structure."

Markin p506

Criticism has been levelled at these models on the grounds that:

- 1) The stages need not be uni-directional
- 2) The stages need not be linear
- 3) The stages need not be sequential

Palda (1966) argues that there is no logical necessity for awareness of a brand to precede its purchase, and that attitude and behaviour have not been causally linked. In common with many such arguments the issue is largely semantic and definitional and does not add to our understanding.

There is also evidence that consumers may miss out steps, or repeat them. For example information gathered during the cognitive stage may cause reformulation of the problem. Post purchase evaluation will also feed back to attitudes and cognitions and there is substantial evidence that a person's preconceptions and attitudes may affect both the information he collects and his evaluation of that information through perceptual distortion.

Lavidge and Steiner when discussing their model state "the model assumes that all potential purchasers "start from scratch" and imply that their model applies to the first purchase of a new brand only, as any other situation will find the purchaser with



existing knowledge and attitudes. Thus as they stand these models do not cope with differing degrees of repurchase experience and knowledge.

A further major defect of these models is the suggestion that search is a separate stage in the sequence of decision making preceding evaluation. This approach stems from the assumptions of 'rational' models of man which are called "closed decision models" by Wilson and Alexis (1974). Here, as stated earlier, the decision maker faces a known set of alternatives and selects one or several courses of action by a rational selection process. It is more likely that a more complex situation exists requiring "open decision models" as these allow for learning and adaptive behaviour, both rational and non rational.

Thus behavioural concepts such as 'simplification of choice', 'satisficing behaviour', perceptual filtering' and 'sequential search' become important and aspirational levels replace predetermined goals. (Wilson and Alexis 1974 p129)

O'Brien (1971) has tested three hypotheses related to these hierarchy of effects models:

- 1) Awareness influences attitudes over time and the relation is expected to be positive.
- 2) Attitude over time influences, and is positively associated with, intention to purchase.

3) Intention over time influences, and is positively associated with, actual purchase.

O'Brien concluded that within the sequence of cognitive, affective and conative psychological states over time, results basically support the hierarchy predictions. Other research however has not been so supportive leading to other 'hierarchies' being proposed such as the low involvement, attribution and dissonance models. These will be discussed later in greater depth.

The difficulty of explaining impulse buying lead to some early attempts to investigate the phenomena. Some authors have suggested that impulse buying is involved in 33% to 50% of all consumer purchases (Clover 1950, Kollat 1967) but Engel et al (1973 p496) point out that this may be in part an artifact of the interviewing process as the consumer may be unwilling or unable to spend the time or cognitive resources necessary to describe fully their purchase processes.

Hawkins (1962) suggests that impulse buying is too general a term and argues that there are four categories. These are:-

1) Pure Impulse- a spur of the moment novelty purchase which is essentially a random event breaking any normal pattern of purchases. In other words no prior feeling or information had any effect on the decision.

2)Reminder Impulse- occurs when the product is presented and 'reminds' the buyer of his desire for it.

3) Suggestion Impulse- occurs when the product is presented for the first time and the buyer 'visualises' this product as satisfying certain needs or solving certain problems.

4) Planned Impulse- (an apparent contradiction in terms) is when the buyer decides to buy on the basis of changes in price occurring in the market place.

The pure impulse category is almost an unpredictable event involving such a complex interaction of situational and individual variables that any model which attempted to explain it would have to be specific to the individual, the time and the place. It is doubtful whether a hierarchy of effects model would have much explanatory power in this case, and in any case would not fit into our area of interest as no search would have taken place.

An argument can be made however for explaining the reminder, suggestion and planned impulse purchase in terms of the hierarchy of effects model. Suggestion impulse can be seen as positive moves through the stages in a very short time period utilising existing knowledge, attitudes and preferences. The Reminder and planned impulse are the result of information the buyer did not have before entering the market place. For reminder impulse buying the information lacking is the products availability, and for planned impulse it is the price.

Kollat (1966) investigated impulse purchasing and accepted this

viewpoint and suggested that the decision process for impulse convenience goods and for major durable good purchases are the same.

### **Industrial Decision Process Models**

Decision Process models have also been used to describe industrial decision making as, while there are many different roles that managers play in organisations, all managers are decision makers. However judgement is made as to their effectiveness as managers, often mainly based on their history of making the "right" decisions. Consequently there is a tendency for managers when reporting how they made decisions to rationalise their responses and report how they should have been made rather than how they were made. This has led to a greater number of "normative" models of the decision process, often designed as an aid to making the "right" decision.

March and Simon (1958) were amongst the first to believe that an understanding of how decisions were made was central to an understanding of an organisation, a point of view amplified later by Cyert and March (1963) in their "Behavioural Theory of the Firm".

Industrial process models tend to specify in detail the steps that may be taken within each stage, and indeed the number of steps is only limited by the inventors ingenuity. Hill and Hillier (1977 p33), when reporting on the stages of the corporate industrial buying process for capital goods give over thirty

steps, with two major routes based on supplier specified or buyer specified. A balance must obviously be found between a model which has become too simplistic and overgeneralised to be of value to managers or researchers and a model which is descriptive of only a specified unique situation.

Most industrial models will fit the C-A-C sequence and similarly Hansens five stage process of Problem Identification, Information Acquisition, Evaluation, Decision and Post-decision fits all these models slightly better than the consumer models. This is due to the industrial models focus on activities rather than psychological states and the implied logical process.

The assumptions of rationality still exist implicitly in these models even though Perrow (1972) when discussing the neo-Weberian model of decision making states that given the limits of rationality (bounded rationality) the manager in an organisation constructs a simplified model of the real situation.

"This 'definition of the situation' is built out of past experience and is a highly particularised selective view of present stimuli. Most of his responses are 'routine', he invokes solutions he has used before. Sometimes he engages in problem solving. When he does so he conducts a limited search for alternatives among familiar and well worn paths, selecting the first satisfactory one that comes along. He does not examine all possible alternatives, nor does he keep searching for the optimum one. He 'satisfices' instead of 'optimises'. That is he selects the first satisfactory solution rather than a search for the optimum. His very standards for satisfactory solutions are part of the definition of the situation."

Perrow 1972

This behavioural theory of decision making with its acceptance of the 'psychology of simplification' suggests that any model of decision making must allow for feedback between evaluation and problem recognition (criteria and definition of the situation) and allow for sequential search and evaluation.

Some other useful concepts have been suggested in the industrial field which may possibly transfer to the consumer situation. Robinson and Faris (1967) suggest that decisions are incremental in nature and hence each decision consists of several smaller decisions. They state,

"The precipitating decisions form the basis of the product decision, the product for the supplier decision, the supplier for the commitment decision. At this stage the decisions reached for such a purchasing process will then influence (i.e. form the basis of) decisions concerning further products from the supplier selected on this occasion."

Many theorists believe that any analysis of decision making within the organisation must explicitly include a treatment of the group nature of decision making within organisations. Attention has therefore focused on the Decision Making Unit (DMU) or Buying Group. Many authors argue that this differentiates industrial buying from consumer buying, and there is considerable difference of opinion in this area, although Professor Henry (1979) categorically states,

"What is true of the family D.M.U. of two people is, in fact, equally true of the D.M.U. for industrial and commercial purchasing."

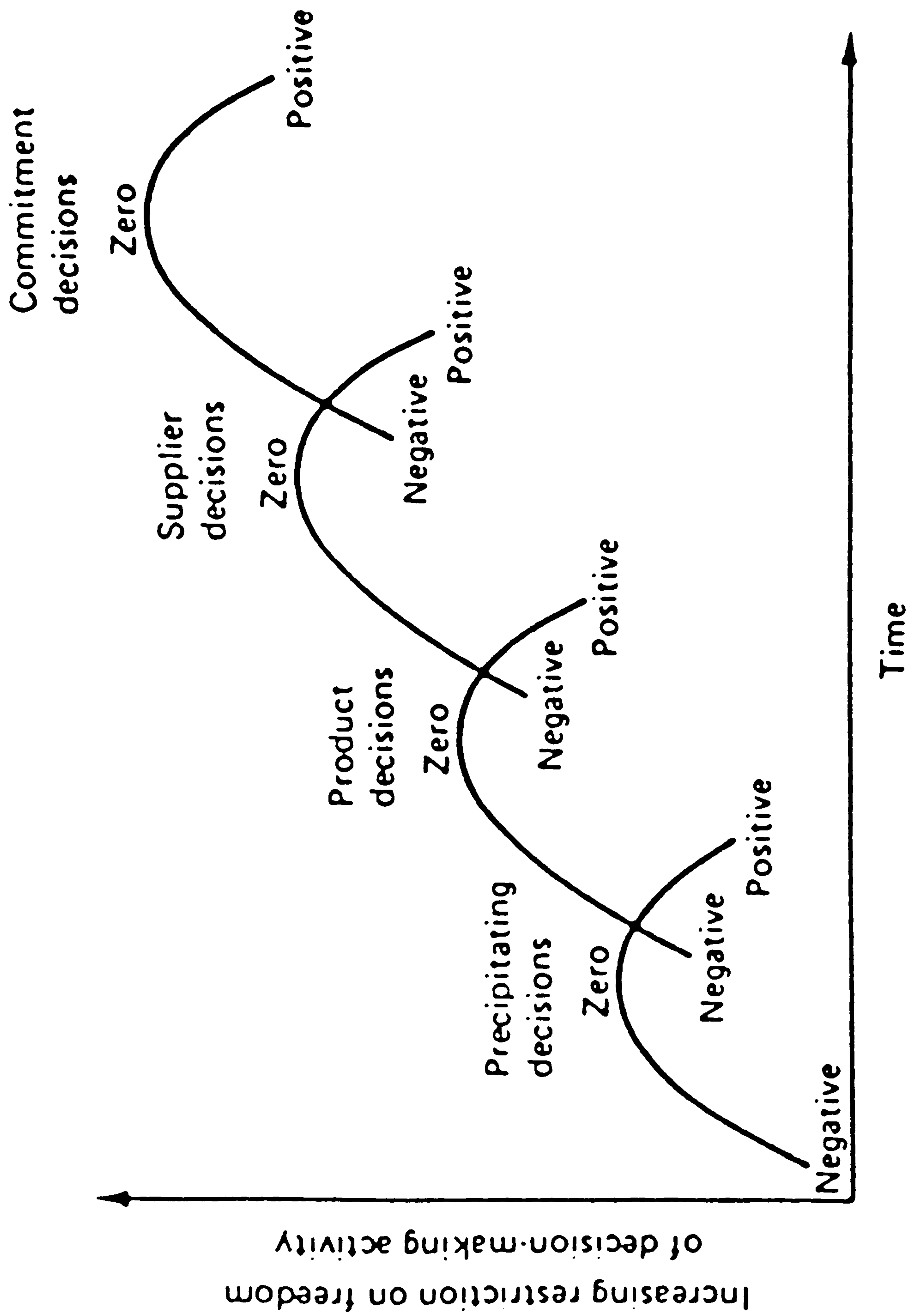


Figure 2.11: The Incremental Nature of Decisions

Hill and Hillier introduce the concept of Decision States, where the decision moves from an initial negative state to a zero state when authorisation is given at a higher managerial level, to a positive state when the decision is implemented and further decisions can be based on it. The idea of incremental decisions and decision states can then be combined (Figure 2.11) to indicate the tendency for decisions to go up and down the management hierarchy. The critical state, similar to the concept of "centre of gravity" (Robinson and Faris 1969) is the time period from the initial negative state until the zero state. (Hill and Hillier p48)

It should be noted that it is possible that this movement of decisions up the hierarchy may only take place with the more complex decisions, and routine rebuys may stay at a low level. (MacDonough 1963) The movement up the hierarchy may also only be a rubber stamping procedure with all responsibility (and therefore influence) remaining at the initial organisational level.

Jon Child (1972) points out that 'dominant coalitions' form which need not necessarily be the formally designated holders of authority in the organisation, but those who collectively happen to hold most power over a particular period of time. Thus as the decision progresses through the organisation different 'dominant coalitions' form at the different decision stages and these may modify plans and decisions previously taken. The many political



influences upon the decision process are studied in depth by Pettigrew (1975) and will not be dealt with here.

### Conclusion to chapter

The general conclusions from the various models are that the assumptions of bounded rationality and simplifying behaviour seem to be generally accepted by most authors. These assumptions are that behaviour is goal orientated with cognitive and search effort being invested to find a satisfactory solution. Search rules and judgemental, or evaluation, rules are used to simplify this process by relying on past experience of similar decision making and search.

As problem solving is taking place one of the main stages is problem recognition which interacts with the search and judgemental rules to determine the nature of information acquisition required and the level of satisfaction which would be found acceptable. The search rules and judgemental rules are normally investigated separately and most models, such as Howard and Sheth and their perceptual and learning subsystems, tend to treat these two areas separately. Others, while separating the stages, emphasise the artificiality of doing this as the two processes are interwoven with continual interaction.

This research focuses on the search rules which consumers use in the hope of contributing to an understanding of how people acquire and use information in their decision making. Such an

understanding should be of use both to the academic trying to develop a theory of choice and also the practitioner who needs to design efficient and effective communication campaigns.

In the next chapter we shall be adopting the assumptions of bounded rationality and within the framework it provides will be looking at the sequence of search as described by the various models. We shall not be using the approach of some authors in attempting to specify the relationships between important psychological variables but instead will be using the observable behaviour of search activity and information acquisition to observe how the decision maker uses information in his quest to simplify the world around him and reach satisfactory decisions.

## CHAPTER THREE

### SEARCH BEHAVIOUR AS AN ORGANISING PARADIGM

Previously we briefly introduced various approaches to the learning hierarchy, or decision process, and this chapter will examine in rather more depth the concepts and ideas mentioned and begin to develop the conceptualisation on which the later research is based.

As Sternthal has stated,

"Buyer behaviour is the study of the process by which consumers make decisions. More specifically, it is concerned with how buyers acquire, organise and use information to make consumption choices."  
Sternthal and Craig 1982 p7

As we have shown earlier the process is extremely complex with many inter-relationships and feedback loops and thus any diagram tends to be overly simplistic. We must therefore investigate the role of information acquisition in this process, and how this information is used to reduce uncertainty and ambiguity and solve a 'problem'. By recognising the nature of the process, with its various incremental steps, pauses and interactions, opportunities exist for a communicator to influence the decision by focusing on the critical points in the process.

## Search and Satisficing Behaviour

It must be remembered that the consumer is not a passive object awaiting incoming stimuli, he actively searches out relevant information if he feels it necessary. This point is argued by Crosier (1983) when he stresses that marketing communications require an exchange between the communicator and the source, rather than the simple transmission of a message from one to another. As he reminds us, "We communicate with others, not to them." He carries on to emphasise the transactional nature of marketing communications, rather than the usual approach which focuses on the transmission of information, by discussing how consumers often initiate the transaction by choosing to expose themselves to marketing communication initiatives.

The consumer is also selective and therefore looks for information on specific items and characteristics which he may accept or reject and then judges these characteristics in varying ways.

Information processing theory investigates this area and is concerned with how individuals acquire, organise and use information (Sternthal and Craig 1982). Many advances have been made in this area in recent years which have given insights into what happens to information once it reaches the attention of the individual but our research is mainly concerned with how this effects or is expressed in external search behaviour.

A satisficing model of buyer behaviour makes certain assumptions about the nature of decision making, which are listed below, many of which have gained support from the information processing literature.

Firstly, that for high involvement decisions a process takes place from awareness or knowledge of the problem, through searching for and evaluating various possible solutions, to a final choice decision, usage and feedback.

Secondly, that these stages are normally sequential but have many stops, pauses, recycling and simultaneous interaction with incremental steps being built upon.

Thirdly, that the complexity and depth of this search and evaluation process will vary by individuals perceptions of the need for any such complexity and depth. (i.e. their perception of problem complexity or difficulty.)

Fourthly, their perception of this complexity will vary by the clarity and stability of their conceptual structure (i.e. how well the problem relates to past experience and knowledge, and the transferability of this experience and knowledge.)

Finally that during this process the individual will use satisficing procedures to simplify the choice, to reduce cognitive stress.

These satisficing procedures have been touched upon earlier and are listed below:-

\*That consumers use choice heuristics, or rules of thumb to simplify the decision process in choosing between alternatives.

\*That consumers will use existing knowledge, about alternatives, criteria etc. whenever possible.

\*Search, if necessary, will be limited to that necessary to find a satisfactory solution.

\*Goals will be modified (and lowered if necessary) by learning and a consumer will apply existing solutions whenever possible.

\*Consumers will use a phased sequence, rejecting alternatives until a sufficiently small set exists to be studied in greater depth.

\*Consumers are often not aware of the simplifying strategies they are using. While simplifying, and using choice heuristics, they will be as rational as possible within these constraints (bounded rationality).

It is these assumptions which will form the basis of the research investigation and we shall be analysing the process by which consumers purchased or rented a video recorder paying particular attention to the role of search during the decision process. ✓

A diagrammatic model of the decision process attempting to show

how such a process operates is shown overleaf. (Figure 3.1). It represents the process of decision making as a sequential action aimed at reducing possible alternatives in the awareness set to a consideration set where further application of decision rules will take place, followed by a small selection of alternatives (possibly only one or two) in the choice set which will then be finally considered. It also allows for a bypassing of these stages should an awareness or consideration set already exist, as in Limited Problem Solving or Routinised Response Behavior.

This model will be used as a framework for a consideration of the steps of Problem Recognition, Search and Evaluation, showing the role of information and search rules in each instance.

#### PROBLEM RECOGNITION

In this section we will be arguing that Search Behaviour (SB) is a function of Problem Recognition. That how well known or clearly understood the parameters of the problem are, (how clear or complex is the problem, is the need easily understood, can the problem easily be classified) is directly related to the amount of search activity, internal and external.

While it is generally unwise to state where an individual starting point is in the decision process for the purpose of conceptualising the process Problem Recognition is usually taken as the initial stage and is at the top of our model.

Problem Recognition differs from and is more than awareness of a product or knowledge of its attributes the initial starting point of some models (Lavidge and Steiner 1961, Rogers 1962, Cooley 1961). Awareness is a much more general term than problem recognition and may not precipitate the decision process or motivate behavioural or cognitive activity. (For this reason a low involvement product may not fit this model as it does not motivate). Similarly problem recognition can occur without interest, although a person can be interested without perceiving a problem.

Engel, Kollat and Blackwell (1978) define problem recognition as

"...a perceived difference between the ideal state of affairs and the actual situation sufficient to arouse and activate the decision process"

Webster (1965) would agree with this as he states,

"Problem recognition can be rephrased as dissatisfaction with the present level of goal attainment."

He continues to point out that this dissatisfaction can be created by the marketer by increasing the buyers aspiration level (the desired state) or pointing out deficiencies in existing solutions to problems(the actual state).

The desired state is a result of past learning, experience and information gained about what is possible and about benefits and consequences of actions. This has created a motivational



hierarchy of goals which will effect the strength of various desires. These goals, or solutions, do not reflect the maximum attainable but rather an acceptable level (March and Simon 1958, Cyert and March 1963).

The actual state is also not necessarily a true, objective reflection of the actual situation. A skinny girl may think she is fat, an attractive girl think she is not. This is often due to unattainable desired states being sought, thus a goal can never be reached and a need/drive never extinguished or satisfied.

Thus the process of goal setting is not an economic, rational one but is effected by a host of factors which influence the level of aspiration, or expectations, of individuals and bring about reappraisal and redefinition of goals.

It has also been suggested that there are two problems which exist (Stabel 1978 ). The primary problem is that which the decision maker faces, i.e. the decision to act or not, to buy or not, the decision to make a decision. (Arrow 1974) The secondary problem relates to the choice of methods and information that is to be used to approach the primary problem. We have mentioned that consumers are often not aware of these secondary decisions and they rely on 'simple minded' search and crude heuristics.

It is suggested that the perception of problem difficulty or complexity has a strong effect on the methods and procedures and

information sources used in the decision process.

The concept of complexity links three main elements of the decision making situation, (Schoder H, Driver M, Steufert S 1967)

\*a characteristic of the task, (its complexity)

\*a characteristic of the individual decision makers conceptual system (its integrative complexity)

\*a characteristic of the decision makers behaviour (the level of information processing)

Task complexity relates to the complexity of gathering information from the environment and thus is affected by the promotional activities of the manufacturer and retailers, the level of word of mouth activity and the opportunity for experiential learning.

Integrative complexity is determined by two interdependent aspects:-

- 1)the number of parts or dimensions of the conceptual system
- 2)the nature and extent of search rules for integrating these parts

Stabel(1978) gives an example of how the search rules which form part of the individuals integrative complexity might apply to

the use of information sources. An individual may have four different characteristics or dimensions he applies to information,

- factualness (fact v's opinion)
- qualitativeness (qualitative v's quantitative)
- accuracy (accurate v's inaccurate)
- experience (experienced v's inexperienced)

These parts might vary, and their importance might vary. Thus an integratively simple person might have a single search rule "qualitative information is not acceptable". An integratively complex person may use many rules, and apply them at different times, as in screening rules (i.e. whether to apply other rules)

"A key hypothesis in complexity theory is that the single most important consequence of increasing integrative complexity in a conceptual system is an increasing ability and tendency to generate alternative interpretations of the same phenomena and stimuli" Stabell 1978 p119

In other words he sees the other side of issues, realises pitfalls and perceives greater uncertainty and ambiguity. This should result in more information search, from many sources, especially in semi-structured or unstructured decision situations. (Schroderet al 1967 p29-41)

In general then the more complex the problem is perceived as being by the individual the more search will be undertaken. ✓

## Problem Classification and Buy Classes

Howard (1963) was one of the first to suggest this approach and he has developed a detailed conceptual background while also showing its applicability to the marketing manager (1977). He draws upon the discipline of cognitive psychology to show how the perception of problem difficulty changes as the buyer learns about buying situations, learning from search activity, experience with the product, or by generalising from experience with the product class or a situation with a common meaning.

He classifies the buying situations into three; Extended Problem Solving(EPS), Limited Problem Solving(LPS) and Routinised Response Behaviour(RRB). This classification he believes can be related to the process of concept formation, which is the process of learning, understanding and being able to use a concept.

At one end of the continuum we have concept utilisation (similar to RRB) which is a task or problem which requires the use of concepts which are already known to the individual. It involves the search for, identification and use in any given situation of one from a collection of several alternative familiar concepts.

For this utilisation to take place the individual must learn not only the attributes of the concept but also the rules on the combination and use of the attributes, to allow the individual to discriminate or generalise. If the attributes have been learnt but not the rules of combination then the process is in the

process of being learnt but cannot be utilised as yet and can be likened to LPS. This distinction between learning and utilisation is arbitrary as they are points on a continuum but it is useful to make this distinction. At the other end of the continuum is the point of no knowledge which is obviously related to Extended Problem Solving.

Howard points out that people make sense of their environment by creating an 'ideational scaffolding', a cognitive or semantic structure which organises and gives meaning to the sensory inputs which are being received.

"Human beings think by setting up categories into which they group similar things. When they encounter something they identify it by placing (grouping) it in its appropriate category, and then valuing (distinguishing) it in terms of the attributes which cause it to satisfy motives."

A buyer, to make sense of a consumption problem, must therefore have or create a category for the product, a Product Class, which Howard defines as the subjective meaning of a class of similar brands. As sub categories within this product class are numerous brands, the brand concept being the subjective meaning of a brand. This cognitive structure thus gives meaning to the brand by the way it stands in relation to other brands and product classes.

To attain a product concept fully a buyer must therefore have knowledge of the existence and characteristics of those brands

that form his evoked set of alternatives (Brand Comprehension). The buyer must also be able to evaluate these brands by the use of choice criteria (all brands that are put into one class being identified and evaluated by the same criteria).

A final element in the perception of problem difficulty is an attitudinal one. Different buyers will require differing amounts of information before they can differentiate and choose between brands. This is related to their degree of Confidence, the degree of certainty the buyer subjectively experiences with regard to satisfaction if the brand is purchased (Howard and Sheth 1969).

Andreason and Ratchford (1976) support this view when they found that the demand for information was related to how complex that information was (i.e. how many dimensions and interactions) and how subjective it was. Subjective dimensions require personal opinion, subjective interpretation and evaluation of a phenomena (i.e. factual information would be the length of a guarantee period, subjective information would be the quality of after sales service). The more complex and subjective the information the less confidence he will have in his ability to satisfactorily choose and the more cognitive ambiguity will exist, leading to the problem being classified as more difficult.

The attempt to classify product decisions is not a new one. Other earlier attempts have been made by Copeland (1924 1926), Duncan (1940) Aspinwall (1962) and Kaish (1967). Copelands work on the

classification of goods theory has received the greatest amount of attention from people such as Bucklin (1963) Molton (1958, 1959) Luck (1959) Alexander (1964) McIver (1962) Markham (1970).

However, as Risley has pointed out,

"any classification of goods is far more apt to perpetuate a misdirection of marketing thinking than it is to contribute to a real understanding of marketing problems. It tends to perpetuate a product orientation in the minds of marketing men, even those who profess to be market orientated."

It is for this reason that the work of Howard and his classification of problems into Extended Problem Solving, Limited Problem Solving and Routinised Respose Behaviour, is to be applauded and encouraged as he has turned his viewpoint away from the product towards the buyer.

The educational and cognitive psychology literature supports Howards basic propositions, and Howard shows the relevance to consumer behaviour but until Robinson and Faris it was not clear if this conceptualisation was applicable in industrial buying. It has been argued that the nature of the industrial goods being bought and the roles industrial buyers fulfilled in the organisation made industrial buying unique.

Robinson and Faris (1969) studied three industrial companies in depth and came to similar conclusions to Howard, that the situation of the buyer in relation to information and experience was more important than any categorisation of goods. Eventually

they came to the conclusion that three distinct situations existed; New Task, Modified Rebuy, and Straight Rebuy.

They identified the distinguishing features of these buying situations (Buy Classes) as Newness of the Problem, Information Requirements, and Consideration of New Alternatives, as they related to the decision making unit. They illustrated them as below.

TYPE OF BUYING SITUATION	Newness of Problem	Information Requirements	Consideration of New Alternatives
NEW TASK	High	Maximum	Important
MODIFIED REBUY	Medium	Moderate	Limited
STRAIGHT REBUY	Low	Minimal	None

#### Newness of the Problem

Robinson and Faris believe this characteristic alone is sufficient to differentiate among the three types of buying situations:-its similarity to other problems and thus the buyers experience of previously dealing with the problem.

#### Information Requirements

This characteristic refers to the amount and type of information which the buyers believe they must obtain before they can make their decision with a reasonable degree of confidence, and is inversely related to the newness of the problem since the less



experience held the more information they will require.

Differing awareness of important information deficiencies causes buying situations to differ even when decision makers have equally relevant previous buying experience, and therefore information seeking patterns to differ during the problem solving process.

#### New Alternatives Considered

The third primary characteristic is the number of new alternative solutions the decision maker seriously considers, and is obviously related to the previous two characteristics. It is most basically affected by their perception of the situation on two counts a) their awareness of viable alternatives b) the distinction they make between the immediate problem and the last similar problem.

In the case of straight rebuy no new alternatives are considered. The need is continuing or recurring and the problem is recognised as routine and serious consideration of new solutions is not required. The new task situation, constituting a new problem involves all new alternatives in its decision making and the gains are likely to be high relative to the time, money and effort involved in searching for more alternatives. This is less so with Modified Rebuy and in Straight Rebuy the existing experience and information are sufficient, and the cost of search will exceed the gains.

The findings of Robinson and Faris are thus completely in line with Howards predictions. Other researchers in the Industrial field (Dempsey 1978, Ferguson 1977 Brand 1974) have also supported the idea of buy classes in the industrial field.

### Search Rules and Buy Classes

Drawing upon these two major works we can now show the applicability of search rules to the conscious or unconscious classification of consumption problems into one of the three classes.

Decisions must be made by the individual as to how his informational requirements are to be satisfied. It is possible to think of the decision to search as being guided by a set of rules. While they may never be explicitly codified or written down they are used by the decision maker to simplify his task.

This will be explored further later but a simplistic set of search rules could be as follows:

- 1) Are parameters of problem known? (PK)
- 2) Are alternative problem solutions known? (APS)
- 3) Are criteria for judging between alternatives known? (C)

Thus search takes place to position the product in the cognitive structure (classify it), to create an evoked set, and gain

information on relevant criteria.

Therefore Search Behaviour (SB) = f ( PK + APS + C )

When:-

SB = Search Behaviour

PK = Knowledge of problem parameters (related to problem classification and perceived problem difficulty)

APS = Are Alternative Problem Solutions known (Related to size and function of evoked set and classification of products within cognitive structure)

C = Are criteria for judging between alternative available, relating to product criteria, company criteria and market criteria

All three elements should exist for a consumption problem to be solved and one would expect the collection of information on these three areas to be sequential although this need not be the case.

This is not a complete representation as the interpretation of data and the need for varying levels of certainty is affected by other factors unrelated to the immediate problem. These can be classified into Individual variables, Situational variables and Environmental variables and will be discussed later.

The model as it now stands does not allow for the interaction effect of the search rules. As will be shown a knowledge of criteria may be necessary to define the problem, a knowledge that the problem as defined cannot be satisfied might lead to a reduction in criteria to allow a solution to be acceptable, and a change of criteria may in itself cause a problem to be recognised.

We now have the beginnings of our theory of search. Knowledge is required as the basic raw material of decision making and can be of three sorts,

Product Knowledge

Company Knowledge

Market Knowledge

The degree to which this knowledge is used will depend upon our definition of the problem and the availability of solutions. This in itself will be influenced by intervening variables which we have classified as Individual, Situational and Environmental.

We will now discuss each of these elements in greater depth.

Extensive Problem Solving is the most complex application of the search rules as:-

Parameters of Problem (PK) are unclear as the requirement or problem has not arisen before. There is little or no relevant past experience which can be transferred across.

Alternative Problem Solutions (APS) are unknown or are unclear. Comprehension is low, and brand concept ambiguity is high. Knowledge may be high but will be shallow as many brands may be considered.

Choice Criteria (CpCsCm) are not yet well defined or structured. Confidence is low with no strong dispositions towards any potential solutions.

In Limited Problem Solving:-

Parameters of Problem are clear as something similar has arisen before.

Alternative Problem Solutions exist as the product class is known, however brand concept ambiguity is high and a need is felt to consider new brands and to compare and discriminate.

Choice Criteria are reasonably well defined and stable but new evaluations are being made of vendor mix offerings. Confidence is relatively high and strong dispositions may be felt towards a number of brands.

In Routine Problem Solving:-

Parameters of Problem. In RPS this is a continuing and recurrent problem, handled by applying routine solutions. The buyers need

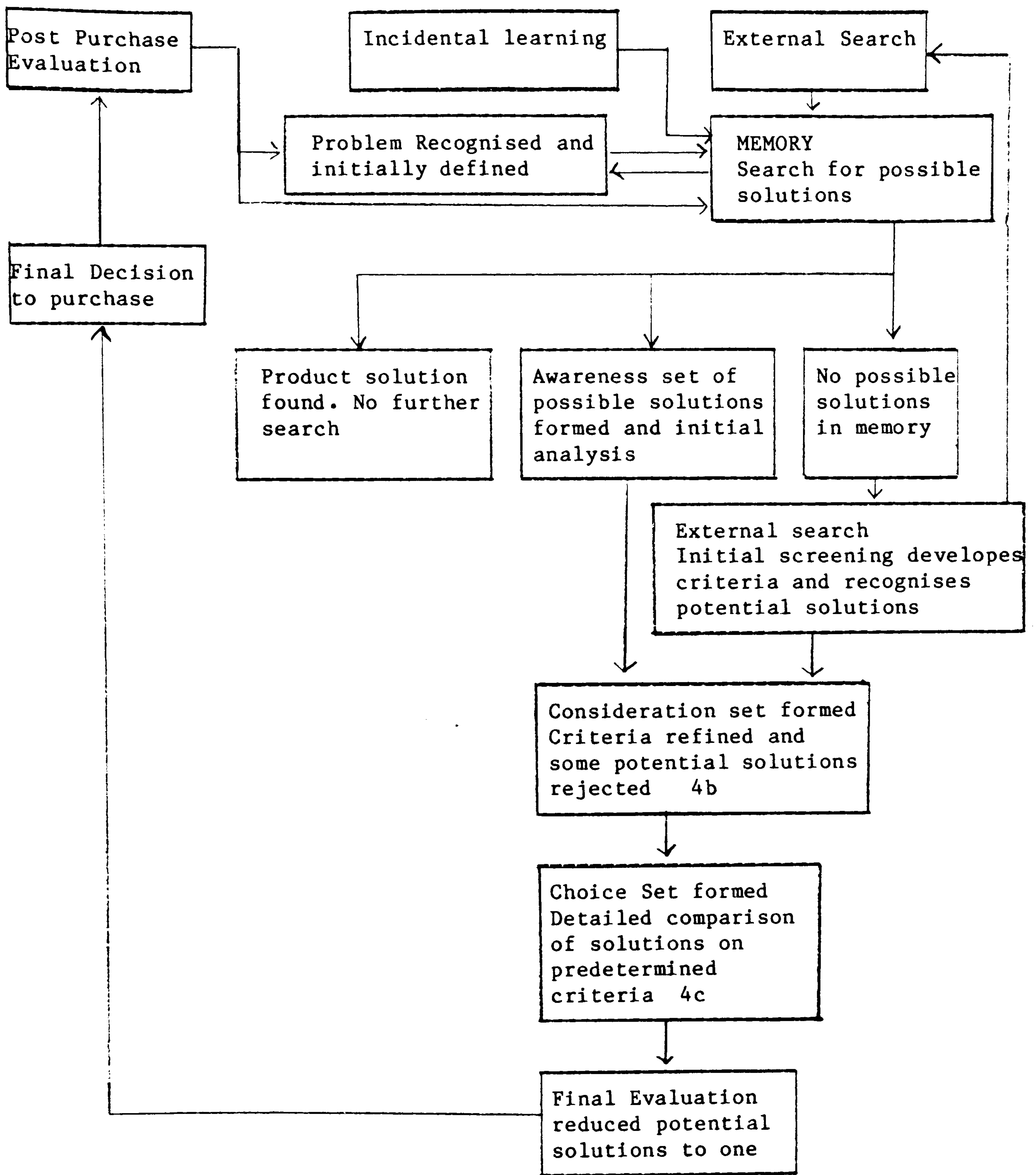


Figure 3:1

A simplified flow diagram of the decision process. F's?

for cognitive consistency means that he will resist attempts to complicate the problem. Information that does not fit the cognitive structure will be screened out or distorted.

Alternative Problem Solutions. A solution from past experience is automatically applied, and therefore any potential product must be on the list (formal or informal, conscious or unconscious) of acceptable products or companies. (Consideration Set). No product class or brand ambiguity exists.

Choice Criteria. Basic choice criteria are fixed although variations in the product mix are allowed so long as no fundamental change takes place. Choice criteria are well defined and structured. There is a strong predisposition toward one brand or supplier, although several may be considered to ensure market conditions are unchanged.

Our diagrammatic model of search behaviour recognises the importance of this classificatory process by building a trichotomy into the treatment of search. The memory is searched for a solution and depending on the existing knowledge and its integrative complexity the problem will be classified along the continuum which in our model is split into the three classifications as suggested by Howard.

Problem Recognition classification may in itself involve complex comparisons and weightings of such things as the relative importance of various needs, attitudes about how limited

financial and other resources should be used, and attitudes about the qualitative level at which needs should be satisfied. These attitudes and motivations will have been developed from past experiential and objective learning and the model shows this by its interaction with memory in stage 2 (memory search). Thus a form of evaluation takes place even at this early stage.

Redefinition of the problem may also take place as further information is acquired and this is shown by feedback loops from stage 4, the search stage. This recognises that the need hierarchies and criteria differ from one family or buying group member to another, so that conflict resolution procedures may be necessary leading to redefinition of the problem as more information and/or further people are brought into the decision process.

The first major subsection of the model is thus stage 1, 2 and 3. By the interaction of precipitating circumstances leading to need arousal a problem is recognised (stage 1) and memory containing objective and subjective knowledge is then searched (stage 2) and a problem is initially categorised into one of the three alternatives (stage 3).

One part of the research will therefore be the investigation of problem recognition and the role of problem classification in deciding upon search strategies and the applicability of these search rules. ✓



This gives us the first of our research questions:

- 1) What is the nature of Problem Recognition?
- 2) Can we identify the elements that guide an individual in categorising problems?

The next section moves on to discuss the nature of search behaviour and its role in the decision process. The application of our search rules during the sequence of problem solving will be discussed in a later section when further research questions will be suggested.

#### SEARCH BEHAVIOUR AND DECISION MAKING

In this section we will be looking at the nature of search behaviour, both external and internal, and will suggest that the method of acquisition of knowledge effects the salience and usage of the information in decision making.

We shall then move on to investigate the ways in which search has been studied in the past and review research into the amount of search conducted during decision making. This will lead us to suggest a further set of questions for investigation.

#### External Search

External search has often been simplistically broken down into Active and Passive search (Kelly 1972). This dichotomy sees

information and knowledge either coming to us without any purposeful action on our part, from hoardings, television and radio commercials, or it may come as a result of direct action by ourselves, seeking out salesmen, brochures, magazines etc.

Aguila (1967) also suggests that information acquisition can be of two major types, purposeful search and undirected viewing. These, he suggests are two ends of a continuum which can arbitrarily be classified into four "scanning activities" i.e.

1) Undirected Viewing-consists of impressions from the environment, scanning in the every day sense of flipping pages etc.

2) Conditioned Viewing-consists of directed exposure,not involving active search, to an identified area.The person is now "sensitive to the area".

3) Informal Search -consists of a limited and unstructured attempt to gain specific information.

★ 4) Formal Search -consists of a deliberate effort, usually following a prearranged plan, to gain specific information.

The suggestion is that various informational requirements are assigned to one or other of the modes of scanning. Aguilar makes the qualification that these assignments relate to a given point

of time and may change as circumstances alter, and that more than one mode may figure importantly at any one time with respect to a particular need. However he believes that the concept of assigning a mode of scanning with an information need still remains meaningful and valid.

A choice is made as to which scanning mode is used on a number of criteria. Formal Search is the most effective method of gaining information, but also requires the greatest degree of effort and attention. Formal scanning could not therefore be carried out for all informational requirements as it would be too costly and time consuming.

As with many other recurring class of problems solutions are not worked out afresh every time a need arises. Rather solutions are guided by rules, as postulated earlier. That is, established procedures and practices that the person has devised and tested over a period of time. Some of these rules may relate to the level of information existing in memory on certain areas.

It can be hypothesised that Undirected viewing and Conditioned viewing are employed when there is no immediate need for information and the decision maker is merely avoiding a "barren environment", a need or problem is not yet sufficiently motivating.

Informal search, of a limited type, is carried out when a problem

is recognised, but possible solutions are known and the type of information requirements are readily available.

Formal search is likely to take place when knowledge is extremely limited, the problem is unstructured and possibly ill defined and information is needed to help clarify the problem, identify alternatives and help in the selection of the "best choice". In this situation it is likely that a reasonably complete decision process will be undertaken, with therefore a matching formalised search process.

Geoffry Kiel (1978) noted the importance of introspection, where a consumer uses the experience he has previously accumulated about the product and market from past search and incidental learning. The continual interaction with the market place, whether purchase takes place or not, is a gradual learning process. Consumers accumulate knowledge about markets, such as what type of stores sell what type of products, what media or organisations supply what kind of information and what are the generally accepted norms concerning the various types of exchange which occur in the market. This form of learning has obvious similarities to Aguila's Undirected and Conditioned Viewing.

Alderson and Sessions (1962) also comment on this learning of market structures over time when explaining the so called irrationality of many shoppers who seemingly undertake little (external) search.

"...in such purchases the housewife may be a more efficient shopper if she spreads her information gathering over time. By buying for a while in a few different stores she may soon learn their characteristics. As a result she will be able to purchase in the first store she enters confident that this is the retailer who is very likely to meet her needs best"

Alderson and Sessions 1962 p141

Thus incidental learning is a means of obtaining information about a product class and the brands which make up the product class. The stimulus for such learning is not problem recognition but other motivations unique to the individual, such as the need for stimulation, as suggested by Howard and Sheth's epistemic search, or the wish to appear knowledgeable to friends etc. etc. The process of such learning is not of interest to us but the consequences of stored information gained through incidental learning is. We have already stated that the greater the amount of existing product information gained by incidental and experiential learning the less external search the individual will be required to undertake to reach a satisfactory level of total information.

Hansen (1972) has referred to this as forced learning, to describe the gathering of information which was neither actively sought nor which came as a by product of consumption or usage.

"...forced learning situations occur when the exposure results because information is provided in environments where the consumer had not intended to seek out that particular kind of information."

Hansen 1972 p54

This suggests the 'transmission' of information rather than the transactional approach argued for earlier and tends to ignore the large body of research which exists indicating that the individual's selective processes will protect him from unwanted information.

To distinguish learning which has occurred during past search, (past objective learning) or consumption (experiential learning), or present search (new objective learning) Keil suggests that a knowledge of the motivation or drive which resulted in the learning is important (Keil 1977), although it is extremely difficult to measure whether motivation exists or not.

Thus if it occurs without the intention or motivation to learn this would be incidental learning. The passive search of Kelly or the first two stages of Aguila 's classification would therefore fit this definition.

### Internal Search

The importance of existing stored information, or previous knowledge has long been recognised and the general conclusion is that it is inversely related to external search (Katona 1954, Newman and Staelin 1971, 1972, Gronhaug 1972, Monroe 1976, May 1969, Swan 1969, Bucklin 1965, Green Halbert and Minas 1964, Roeing and Block 1976, Luffman 1974, Saleh and Londe 1972) so long as it is satisfactory knowledge or experience (Bennet and

Mandel 1969, Luffman 1974).

This fits in with the common sense notion that if previous knowledge, or experience is felt to be sufficient then a problem solution can be found without the need for external search. Existing solutions or habitual actions can be applied without further considerations.

As suggested earlier this stored information can come from previous external search, both of a passive (incidental ) nature and from an active formal or informal search procedure. It can also occur from past usage of the product, either through purchase or from experiencing a friends product, or from testing the product in the shop or elsewhere. This can again be part of a deliberate motivated attempt to gain information or incidental to another activity.

An interesting conceptualisation of this stored information is given by Edith Penrose (1959). She believed that stored information can be of two types, depending on the way the information was acquired. One kind can be formally taught, can be learned from other people or the written word and can therefore, if necessary, be formally expressed and transmitted to others. This would be all information gained from media or friends either actively or passively as discussed in the earlier section.

The other kind is also the result of learning but learning in the form of personal experience. The first form she calls "objective

knowledge" and is the sort of knowledge that is communicated by the communication and social system and is available to all. In this it differs from what she calls "experiential knowledge", which results in a change in the ability and reactions of individuals.

"Experience produces increased knowledge about things and contributes to "objective knowledge" in so far as the results can be transmitted to others. But experience itself can never be transmitted, it produces a change, frequently a subtle change, in an individual and cannot be separated from them."  
E.Penrose p53

Nelson also (1970) accepts the difference between objective knowledge, which is gained by search activity, and experiential knowledge which is gained by buying the product and experiencing and observing its performance. He suggests that for some products it is cheaper to gain objective knowledge by purchase rather than by investing in the cost of search. This could be either because of the low unit cost of the product or the lack of availability of available objective knowledge.

Peters and Venkatesan (1975) refer to the existence of specific experience and total experience. This raises the possibility of transferability of experience from one problem to another, in the same way that rules, principles, and modes of thought may be applied to many different situations in the search for a solution.



Martin Fishbein (1975) discusses the formation of beliefs and also notes the importance of beliefs gained from experience rather than from an outside information source. He believes that belief formation consists of the establishment of a link between any two aspects of an individual's world. One obvious source of information about such a relationship is direct observation. These direct experiences with a given object result in the formation of what he calls "descriptive beliefs" about that object. As he points out since the validity of one's own senses is rarely questioned, these descriptive beliefs are, at least initially, held with maximal strength and certainty. Beliefs that go beyond directly observable events he calls "inferential" beliefs and can normally be traced back to descriptive beliefs.

Beliefs formed by accepting the information provided by an outside source he calls "informational beliefs". While direct observation will usually lead to the formation of a descriptive belief, outside information that gives the same linkage of object and attribute may or may not lead to the formation of an informational belief as many factors determine the degree to which information provided by an outside source will be accepted. The reader is directed to the information processing literature and Fishbein and Ajzen's various writings for further discussion.

It is sufficient to say at this point that this difference is likely to lead to a preference for personal experience, however limited, rather than "objective" marketing communications.

This leads us to another research question,

3. What is the role of incidental and experiential learning in the decision process? ✓

In the decision making process it is likely then that three main modes of search will operate, as in our model. In the first stage of problem recognition reliance is on stored knowledge and experience from past search, incidental learning and past usage. From memory the decision maker attempts to create the evoked set and criteria. In stage 3a the decision maker has decided his level of knowledge is adequate, although not necessarily complete, for a decision to be made. He thus has information on the market and possible products and criteria with which to judge them. This information is sufficient for him to define the parameters of the problem, recognise alternative solutions and judge between the alternatives.

Applying our previously stated rule of search,

$$SB = f (PK + APS + Cp + Cs + Cm)$$

then no further information is required and no external search behaviour will be noted. In this situation the marketer will have no opportunity to influence behaviour, and unless a firm's product is already known to the decision maker it stands no chance of being selected.

In stage 3b PK (Parameters of the problem) have already been defined, Alternatives are known and an evoked set can be created

(APS). Even the criteria for judging the alternatives may be clear but if the decision maker is in a fast moving environment or if he feels he has insufficient information about the existing state of the market, company or product to come to an immediate decision then he will conduct limited external search to raise his information level to a satisfactory level. This is shown as stage 4. The marketer's influence at this stage is likely to be limited to redefining the salience of certain criteria or by changing his product appeal to fit these criteria.

In stage 3c the decision maker feels his level of information is inadequate even to identify potential solutions. He must therefore develop both his criteria and educate himself about alternative products on the market to assess their suitability. It is here that the greatest opportunity for the marketer lies.

By giving relevant information at an early point in the decision process the criteria can be developed in such a way that the marketer's own product becomes the obvious choice. If the product is considered at a later stage (stage 4b or 4c) then it faces a much tougher task as it must be considered against criteria developed from competitors information. It is this process that Robinson and Faris called "creeping commitment".

The search behaviour subsection is therefore closely linked with the problem recognition subsection and performs three functions during the decision process. This follows empirical research that

shows that information search takes place throughout the decision process, with the information needs changing over time (Beal and Rogers 1957, Baker and Parkinson 1977, Ozanne and Churchill 1971)

We now move on to consider the studies of external search which have been completed. From this we will see that search behaviour is a multi faceted concept which suggests further areas of investigation.

## STUDIES OF SEARCH BEHAVIOUR

Numerous studies of the amount of information seeking by buyers have been reported, although most only measure one aspect of external search. These dimensions are usually such things as number of stores visited, number of shopping trips, time spent shopping, amount of information sources contacted etc.. The next section will look at these dimensions in more detail.

### Number of stores visited /shopping trips

In the consumer field the number of shopping trips made (Intertrip shopping) and the number of stores visited (Intratrip shopping ) have both been used as another dimension of active external search. This measure of intensity of effort and activity assumes that the more visits made or stores entered, then the greater the amount of information collected. (The industrial literature sometimes uses visits to manufacturer or supplier.)

Bucklin found (1966) a high positive association between the extent of inter trip and intra trip shopping. That is, where people shopped in more than one store for a product they also tended to take more trips in search of the item. This was not constant across all products however and is likely to be seriously effected by the retailing strategies offered by a particular geographical region.

It has also been recognised that people are motivated to shop for many reasons. Collecting objective and experiential knowledge may be one reason, but Tauber (1972) and Stone (1954) have shown that many other motivations interact with this to reduce its validity as a measure of search behaviour and Tauber points out that shopping trips may involve gratifications considerably beyond the primary functions of search and exchange. Howard and Sheth also suggest that 'exploratory' information seeking may have motives of stimulation, as has been discussed earlier.

The shopping orientations of Stone were further pursued by Darden and Reynolds (1971) who found it possible to use a series of psychographic statements to classify shoppers (local store personalising, shopping apathy, economic shopper and ethical shopper, chain store depersonalising), but these classifications were not shown to predict shopping behaviour.

There have been many studies of this aspect of search behaviour with reasonably consistent results.

Le Grand and Udell (1964) studied t.v. and furniture buyers and found that 39% of t.v. buyers visited one store, 14% two, 23% three while furniture buyers tended to shop a bit more and 22% visited one store, 13% two, 20% three and 18% four stores.

Riter (1966/67) also looked at colour t.v. purchasing and found that the set was often presold and no shopping behaviour took

place but he gives no detail on the amount of shopping other than to say "50% shopped at several stores".

Udell (1966) found that 77% of the buyers of small appliances made only one visit, 19% made two, and 4% made three or more shopping visits. Alderson and Sessions (1962) found 87% of buyers visited one store only and Rothe and Lamont (1973) found 66% of major appliance purchasers only visited one or two stores. Newton and Gilmore (1969) similarly found that 27 of 100 recent carpet purchasers had only visited one store, 66 had visited one or two. Bucklin (1966) found that on non food items costing \$5 or more, 84% were shopped for in only the store of purchase in that particular shopping trip, but 50% were made without interstore comparison.

Dommermuth and Cundiff (1967) for a range of shopping goods found that the range of buyers shopping in two or more stores ranged from 11% to 40%, in three or more from 4% to 23% and that products involving fashion and style were more likely to involve multistore shopping. William and Dardis (1972) had similar findings that nearly 3/4 of all soft goods purchased were bought in the first store visited.

Kleimenhagen (1966/67) used a shopping, convenience and speciality classification of goods and found that the number of stores visited varied with shopping goods taking the longest time (44.4 mins average), 75% of these purchases being made in the first store visited.

Typically therefore, a significant proportion of buyers visited only one store, ranging from 20% to 70% depending on product, the majority of buyers visiting no more than three stores.

This limited shopping behaviour could have many explanations. Stores might not be seen as a useful source of information because of their bias or lack of knowledgeable sales staff. Alternatively, stores might be such a good source of information, carrying a wide range of goods and with such knowledgeable sales staff that shopping around for more information or choice is not perceived as being necessary.

#### Time

One of the dimensions used as an indicator of search activity is the length of time during which the buyer is engaged in search for information.

"This aspect of search activity is significant because it delineates the time dimension of the market environment relevant to a particular buyer. If a longer search period involves additional effort and delayed satisfaction for the buyer, the duration of search can be viewed as a measure of cost and frustration in the buying process."

Hempel 1969

The duration of search should also be of special concern to marketers as the buyers sensitivity to information and other communications is much greater during this period of active information seeking.



Katona and Mueller (1955) in their major study used time as an indicator of "circumspectness", one of the dimensions of deliberation. In this case it was being taken as an indicator of problem solving activity and it was assumed that the elapse of a period of time was indicative of information gathered externally being compared with existing stored information and experience, and then being internalised or rejected.

Unfortunately while in one person delay may be taken as evidence of internal problem solving, in another it may indicate procrastination. Further, while the time dimension may be a important surrogate for total search, the criterion variable, it may also be a predictor situational variable. It has been shown by Marrian (1972 ) that essentiality, or urgent need, may shorten the decision process, which may or may not reduce the amount of external search behaviour.

A study of automotive purchase decisions (1960) noted a presearch stage before entering the market which could vary from one week (approximately 10%) to one year or more( 15% to 20%). Some buyers were continually in the premarket stage, others only when they have the first thoughts about buying a car. The in-market stage does not start until the potential buyer actually visits showrooms or dealers. The research emphasised the continual information gathering which takes place for some products, which can lead to a predisposition for one range of cars. The overall conclusion from their study was that most buyers spend

considerable time in the premarket and in market stage.

Armstrong (1978) also found evidence of a great deal of presold shopping in supermarkets (54% of cases) with 22% having written lists and many having mental lists. Mason and Mayer (1972) found that income was inversely related to shopping time, as would be predicted by a cost benefit theory of search.

Newman and Staelin in their oft quoted study of major household appliances purchases found 1/2 took two weeks or less and a 1/3 six months or longer.

### Planning

Planning is similar to time in its approach as a measure of circumspectness. Katona and Mueller (1955) found that 50% of shirts were bought on the spur of the moment or "within a short time". There was a longer time period for durable goods such as appliances with 36% of people planning for a day to a few weeks, 39% one to several months and 21% a year or more. A similar distribution is reported by Ferber (1954) with 50% taking more than 6 months.

William and Dardis (1972) reported for soft goods that 16% planned by brand, 48% by category only and 36% of purchases were unplanned.

The general conclusion is that most consumers seem' to have a short purchase time, but this may be reduced by premarket

searching, often of an incidental or passive type, and time does not seem to be a good proxy for information seeking.

We shall therefore investigate,

4) What is the nature and length of premarket and market search?

Our study of the role of incidental and experiential learning will also cover this area.

#### Number of alternatives considered

The information processing literature often uses a matrix of alternatives by attributes (Wilkie and Faris 1976) to measure information use, and all the index measures of search behaviour to be discussed later use either or both of these dimensions.

Newman and Staelin (1972) report that 47% of buyers of household appliances and cars considered only one brand, Katona and Mueller found 46% of respondents considered only one price range and Dommermuth (1965) found 41% considered one brand of appliance, 13% two brands, 17% three brands and 29% four or more.

The APD study mentioned earlier found three different buying types, ritualistic, emotional and intellectual with different use of information sources and alternative consideration. Of the ritualistic buyers 56% considered one car, 44% two. The emotional group had 29% considering one car, 52% two or three, and 19% four or more. The intellectual group has similar findings with 36%

considering one car, 45% two or three, and 19% four or more.

Anderson, Taylor and Holloway (1966) found that as the number of items considered in a purchase decision increases, the consumer becomes less sensitive to changes in any of the items involved in that decision. The consumers information per item also appears to decline as the number of items increases.

In the industrial field Saleh and Londe (1972) found that a search rule was used that only existing suppliers would be contacted. If this rule of thumb was unsuccessful additional alternative suppliers from two to five would be considered.

Ozanne and Churchill (1971) while reporting a machine tool study found the number of alternative studied ranged from 0 to 4. Those buyers with more technical expertise or education tended to investigate more alternatives, those of increased age fewer.

Cunningham and White (1973, 1974) found that in the cases they studied of purchasing capital goods, 30% of patronage decisions were made without obtaining competitive quotations. When more than one quotation was obtained this was often merely to conform to company policy and was not seriously considered. Ozanne and Churchill (1973) and Gronhaug (1974) similarly found a limited amount of alternatives considered and information sources used.

## Number of Attributes

Most studies of the collection of information on attributes tends to be experimental, and little research is available on the extent to which buyers sought information on product or other characteristics and criteria in real world situations. As Newman (1977) points out in his review general survey questions have produced limited responses, especially in the absence of aided recall or probing. This area is explored in greater detail later when dealing with evaluative criteria.

Katona and Mueller found that 35% of buyers in their study considered more than one feature in addition to price and brand, but as these two items are themselves used as an indicator of other characteristics the general conclusion of little evaluation may be false.

Olshavsky (1973) in an analysis of customer-salesman interaction while buying a colour t.v. found little conversation in the 'orientation' phase but much more in the 'evaluation' phase with 52 separate attribute references.

Block (1972) emphasised the importance of education in search behaviour. Studying a ghetto area he asked what information they felt they should have, and therefore would seek, before making a large purchase such as a television set. The poor, as an aggregate, responded similarly to models of economic man in search of information, but with less recognition of the need for

dealer orientated information. Three times as many requests for product orientated information were offered than for dealer orientated data.

Jacoby has investigated the amount of information collected on brands and attributes while investigating information overload, and has suggested that there are limits on our processing capacity which will limit search. He suggests (1977) that a limited amount of attributes, 3-7 of the total, will explain purchase as well as the total number. In this he is following Fishbein's (1980) work. He also suggests that 'bits' of information on price, quality, etc. go to make up 'chunks' of brand image. This is dealt with later but a review and a consideration of the information overload controversy can be found in Malhotra, Jain and Lagakos (1982) and Malhotra (1982). Jacoby's reply and Malhotra's reflection can be found in a recent article (1984). The general conclusion is that after publishing a great deal on information overload and having his methodology criticised by Russo (1974), Summers (1974), and Wilkie (1974) Malhotra reanalyses the original data and criticises Jacoby's logic and statistics, suggesting that most of Jacoby's findings, while possibly correct, were not supported by the data he had gathered.

The industrial field is similar to the consumer field with Saleh and Londe (1972) reporting that industrial buyers believe in conducting more information search than they actually do,

instead relying heavily on past experience. Of 48 buyers, 45 looked at less than six features, 38 looked at five or less and 28 four features or less.

It is possible that the limited consideration of alternatives reported is a function of the research methodology employed, in that respondents reported the last stage of the decision making which involved the evaluation of the brands in the choice set. By this time other alternatives had been rejected in a sequential manner and as they had not been 'seriously' considered would not be reported. Similarly the use of criteria changes during the decision process and an attribute may have been used earlier for screening purposes but not reported as it was not used in the final evaluation.

We shall therefore study the number of alternatives included in the evoked set as part of our study of the sequential nature of decision making. We shall also investigate the number of criteria used during this process.

#### **Number of sources**

A final dimension, included in all the indexes, is the number and type of information sources used. This is sometimes extended to include the frequency of use also.

Source can refer to number of marketer controlled or non marketer controlled communication sources, both personal and impersonal. Learning can also take place by personal examination and use of

the product and this experiential learning often seems to be of major importance to buyers.

Studies of how consumers and managers choose information sources indicate that they rely on quite simple and crude heuristics (Wright 1973) with a great deal of reliance on past experience and knowledge. The most readily available and familiar sources of information are preferred, regardless of potential inadequacies or bias. Stabell (1978) has pointed out the relevance to marketers of knowledge of the breadth, depth, volume and balance of information source use to uncover the complementary or competitive nature of information source use. Stabell also shows the incremental nature of decision making and proposes that one distinguishes between Primary and Secondary decisions.

Secondary decisions are defined as those that relate to the choice of methods and information that is to be used to approach what is considered as the primary decision. This relates to our earlier comments about a need for a theory of search to complement a theory of choice.

At one time it was considered that mass media was the major purveyor of information and had the power to manipulate the masses at will. The work of Lazerfeld et al in 1940 lead people to realise this was not true and that:



"Word of mouth or personal communication from an immediate and trusted source is typically more influential than media communication from a remote and trusted source, despite the prestige of the latter"

Berelson and Steiner 1964

Katz (1957) further states:

"Ideas flow from radio and print to opinion leaders and from those to the less active sections of the population."

Rogers also (1962) stressed the importance of inter-personal communication in the adoption of a practice or a product but to quote Klapper (1960):

"Personal influence may be more effective than persuasive mass communication, but at present mass communication seems the most effective way of stimulating personal influence."

Thompson (1966), Mason(1969) and more importantly Levitt (1967) point out that mass media affects the climate within which salesmen work and friends interact, and thus may have an important indirect effect by influencing preconceptions and creating a 'mental set' towards a product or company.

#### Types of sources used

Block (1972) in his study of poor people found that newspapers and t.v. were listed as the two most useful sources of

information and that they rated personal contact third, radio fourth, store window signs fifth, advice from salesclerks sixth and magazines seventh. This was however a hypothetical purchase of a television. These results do not compare with Udells (1966) study where friends were listed as most helpful, then newspapers, television, magazines, advice from store, and sixth, radio advertising.

Many researchers have found that the usage of information sources, and their importance, vary during the decision process. Any study which purports to rank sources is therefore suspect, as an average ranking may be obtained if retrospective questioning is employed which may well hide the importance of a source at a specific point in time. Similarly rankings in terms of usage need not correlate with rankings interms of importance to the buyer.

Mason (1964) found that:

"The use of mass media sources is higher at the awareness stage than for any other information source, except for peer source use by influentials...Use of mass media sources...is lower than all other sources in the final adoption stage."

Beal and Rogers (1957) in their five stage model of Awareness stage, Information stage, Application stage, Trial stage, and Adoption stage stress the different information needs during the decision process. Information on the products existence is followed by more detailed information search. After the product

knowledge was increased the next stage was to get information on whether it was specifically suited for their own purposes. The trial stage required information on where to obtain the product, how to care for and use the product. The Adoption stage was the evaluation of the trial and decision regarding continued use.

The study, which was concerned with the adoption of new fabrics, showed all information sources being used in all stages with varying degrees of importance. Mass media sources played their most important role at the awareness stage and then decreased in importance. Informal contacts played their greatest role at the application and information stage and commercial sources (store displays, leaflets, circulars) played an increasingly important role from awareness through to trial.

In contrast Lazer and Bell (1966) report that awareness of innovations comes more from personal communications and then, if more information is desired the mass media tends to be consulted. Additionally O'Brien (1971 p40) comments that:

"It is particularly interesting that commercial information (advertising) has no direct influence on ultimate purchase...such influence begins solely with personal sources."

Engel Blackwell and Kegerries (1969) found that innovators searched more than non innovators, and that impersonal or neutral sources were used most frequently in the early stages of awareness and interest, followed by a much heavier reliance on

word of mouth in the final stage.

Carol Kohn-Berning and Jacoby (1974) in an experimental setting found differences in information source usage between innovative products and non innovative products, in that greater use was made of information from friends. The quantity of information collected for established versus new products was very similar, and personal source information was acquired later in the search process.

Lambert (1973) however found virtually no difference in the use of personal sources by early and late adopters, while Rogers and Stanfield (1968) found later adopters making more use of personal sources than early adopters.

The research in the industrial field is complementary to that in the consumer and does not propose any fundamental changes.

Luffman (1974) found a three stage purchasing process, similar to our model. A Qualifying phase using impersonal sources of trade directories and magazines during which criteria were developed. A Determining phase during which more specific information is gathered and preliminary evaluation is carried out, and finally a Confirmation stage where experiential knowledge is gathered from a visit to the manufacturers, and evaluation is made against specific but largely subjective criteria.

Ozanne and Churchill (1971) do not classify their sources in a

way that leads to easy comparison but they found that personal selling was prominent as an information source in all stages of the process but especially in generating interest. The price quotation and tooling proposal was the most important source in the evaluation stage, some companies placing almost exclusive reliance on it. As they classified this as a technical source and impersonal they found that the influence of personal sources declined over the stages, (contrary to consumer research). Martilla (1971) points out that these messages from the technical sources should have been classified as personal as they were tailored for a specific audience and probably negotiated on a personal basis, and thus every source mentioned in the evaluation stage would have been personal.

Martilla's own research used a three stage model of Introduction, Consideration and Post Purchase evaluation. He found that while impersonal sources were important in the early stages personal sources became progressively more important in later stages.

Webster (1970) used Rogers full five stage model and found that salesmen were seen as the most valuable source of information, except in the awareness stage where trade journals were slightly more important.

There seems to be general agreement, in both the consumer and industrial field, that the initial stages of the decision process where criteria are being developed and alternative problem solutions are being found, that impersonal sources are of most

use. This changes as the problem becomes more clearly defined and information of a more 'subjective' nature is needed. This results in the use of personal and experiential sources of information.

Relating this to our original proposition that total information requirements can be classified into Objective and Experiential information, it would seem that the initial need is for objective information to help in the creation of the evoked set and initial criteria. (Consideration set in the model). As search continues the buyer relies upon experiential knowledge, either from primary sources which he investigates, or from surrogate primary sources in the form of other peoples experiences and recommendations. This information is then used to evaluate brands in the choice set.

This area will be investigated in the research study, when we investigate the role of the evoked set and the changing nature of the information sources during the decision process, and the breadth and depth of search.

#### **Indexes of Search Behaviour**

To reflect more fully the complex nature of search behaviour several researchers combined some or all of the previous measures into an index of aggregate search.

Brandt (1973) investigated the search process for purchasers of major consumer durables using an index as he believed the

substitution or complementary nature of search was important. Using a sample of 561 households he investigated active shopping and use of information sources. He found a planning period of several weeks existed before the shopping period, 32% of car buyers and 45% of durable good buyers shopping at only one store or dealer. The number of people seriously considering only one brand was 41% for cars and 33% for durables, two to three was 32% for cars and 30% durables, four or more, 27% cars and 37% durables.

A factor analysis suggested four composite classes of information source existed: media information, personal sources, store sources and neutral sources. Differences in use were minor between the two product classes, but limited use was made of any information source, search being mainly a passive activity. The composite measure of information seeking showed that nearly one half consulted only one source prior to purchase.

Combining the two measures of active search, brands and stores considered, he concluded that 39% of durable buyers and 28% of car buyers engaged in limited search;- visiting one store and considering less than four brands. One fourth conducted moderate search, while 31% of durable buyers and 38% of car buyers searched extensively, (using a weighted measure of search effort).

He found virtually no relationship between active search and information sources consulted. In car purchasing word of mouth influence had an inverse relationship with active shopping, but generally the pattern of search behaviour differed between the three groups of buyers and between products.

Patricia Braden (1973) conducted a longitudinal examination of information search during major household economic decisions, using a panel of 368 families. A weighted index of search consisting of number of stores visited, number of visits, number of brands considered, number of information sources used, and amount of discussion with others was used.

Unlike Katona she found more search activity with previous experience of the product class. Dissatisfaction with a previous purchase of the product did not, as expected, increase search behaviour and she also found different usage of information sources amongst first time and previous buyers.

Katona and Mueller's (1954) classic study investigated deliberation, defining it on five dimensions:

extent of circumspectness, (duration and discussion)

extent of information seeking activity

extent of price and 'good buy' comparisons

extent of brands considered

extent of features considered (other than price)



The index was a simple weighted additive model with a 21 point scale.

The aim of this analytical scheme was to group answers to the various questions in such a way that indexes could be derived that were at the same time more comprehensive and more discriminating than replies to a single question. In analysing the relationships between the five dimensions they found a strong relationship between 'extent of circumspectness' and 'extent of information seeking', 'extent of price and good buy comparisons' and 'extent of features considered'. Similarly a positive association existed between 'information seeking' and the other three dimensions of price, features and brands. These three dimensions were also positively correlated, though tenuously.

They found one group who were careful buyers on nearly every dimension, and at the other extreme a group of practically the same size (less than 1/4) who displayed practically no care. Finally one half of the buyers fell into an intermediate group, who were either generally more casual, or were intensive on one or two aspects but at the expense of other aspects.

Doran (1977) used Howard and Sheth's model to investigate the search process of buying a house and studied length of search, number of realtors contacted, number of houses inspected. He found 13 weeks was the average search time, with a wide range from one week or less to four months or longer. Generally less than three realtors were contacted (42% one only) but a great

many houses were inspected (modal number 8 to 10). All information sources were used more at the beginning of the search period than during any later stage. Doran found few truly significant relationships between elements of his index. Length of search was modestly associated with use of information sources, and talking with friend and relatives was modestly associated with reading newspaper ads., but not associated with other information sources.

Wicking (1975) studied prepurchase information search for domestic dishwashers in Scotland. He noted great variation amongst consumers when the behaviour of each was compared across all the components of search. It was shown that the vast majority of respondents did more than just visit a retailer to buy a dishwasher. Virtually all of them engaged in some other kind of information seeking or receiving, and considered at least two features from a list of 24. Impersonal sources were most important, or first mentioned source. Nearly 50% took less than 2 months while 12.5% took more than one year. All the respondents knew at least three different brands each, and 80% had shopped and examined more than one brand.

His study indicated a greater use of impersonal sources and a greater tendency to shop than earlier studies, but similar findings on length of planning period and features considered. He noted that as more brands were shopped and examined, more impersonal sources were consulted and more features were

considered.

Geoffrey Keil (1978) collected data from 194 Australian new car buyers. Taxonomic analysis of consumer's search style categorised consumers into three clusters based on their search behaviour: Low information seekers, High information seekers and Selective information seekers. In this last category there existed a segment of consumers who primarily use dealer search, another segment who made extensive use of media and inter-personal sources and a third group who take considerable time over the decision and search process but only undertake an intermediate amount of search activity.

These findings he felt supported a multi-dimensional description of search behaviour. He identified three key dimensions: source of information dimension, time dimension, and brand search dimension. He excluded from his index data on what information was collected as he considered this a cognitive information processing stage, but included a ratio measure of number of attributes for which information was required.

His general conclusions were that consumers vary widely in their use of alternative information seeking behaviours, some undertaking very little search and others substantial activity, and that a single aggregated measure of search behaviour (such as that used by Katona and Mueller, Newman and Staelin and Braden could be misleading, as it masks the selective information

seeking which Keils multi-dimensional approach uncovered.

Subhash Lonial (1978) considered consumer deliberation during major appliance purchasing using an aggregate measure, with three dimensions : extent of information seeking, extent of brand search and number of features considered other than price or brand. Answers from several questions in the survey allowed a composite index to be developed.

His operational definition of these dimensions was narrow, and excluded length of planning period, many personal and media information sources and the data thus had certain inadequacies. No separate analysis of the search process itself was conducted although he found that consumer characteristics were more important than situational variables in discriminating between high and low deliberators.

Claxton Fry and Portis (1974) used a taxonomic analysis to classify furniture and appliance buyers in terms of their prepurchase search behaviour, and to relate this to individual, situational and product characteristics. Using personal interviews questions related to five aspects of search behaviour were asked : type and range of alternatives considered, information sources used, features considered, stores visited and time spent considering the purchase. The questions used were similar to Katona and Mueller and Newman and Staelin.

They identified three clusters : thorough (store intense), thorough (balanced ) and non thorough. The percentage of respondents in each category varying by furniture or appliance products. The findings suggested that for a particular amount of deliberation there may be trade offs in the balance of attention given to different aspects of the purchasing process. (i.e. store visits or information sources) and there are substantial differences in the intensity of prepurchase search. Long deliberation viewed in conjunction with other measures appears to represent care in some cases and procrastination in others.

A final implication was that,

"description of prepurchase behaviour in terms of any one variable can be misleading and that aggregate measures can seriously obscure the precise nature of a buyers activities. A profile of variables measuring a variety of aspects of the purchasing process seems essential for adequate description."

Claxton Fry and Portis 1974

Hempel (1969) studied 335 house buyers using three dimensions: duration of search, extent of information seeking, extent of product examination. After analysing each indicator an index was constructed for each dimension, and a combined index of search effort by adding the values of the other search indices.

He found that explanatory variables considered were not related to all measures of search in the same manner and that search

behaviour is multidimensional and that levels of search in the various dimensions are not always correlated. The relative importance of information sources also seemed to be related to the type of decision for which the information was obtained.

Mochis (1976a, 1976b) created an index of information seeking for cosmetics by asking the respondents to tick their wish to have information from that source for each of the five products. He gives evidence that a person's expressed need for information predicted their actual information seeking behaviour fairly well. He was mainly interested in shopping orientations and the effect on communication behaviour, and found that depending on the orientation (problem solving shopper, psycho-socialising shopper etc) information source usage varied and that each shopping orientation had preferred, trusted sources and preferences for differing kinds of information.

Newman and Staelin (1971,1972,1973) collected data from 653 households who had purchased cars or major household appliances, and investigated duration of decision time and prepurchase information seeking. The study employed indices of out of store and in store information seeking and combined them into an overall index. Scores, from 0-26, were based on reports of types of information sought, types of sources used and number of stores visited.

It appeared that many buyers engaged in little information

seeking and had short decision times, but experienced buyers were able to collect a substantial amount of information in a short time. It is also seen that prepurchase search can be measured on many dimensions other than simply information acquired and that any simple measure of search is likely to mislead researchers.

The indexes obviously considered search behaviour in much more depth than previous studies. It would seem that consumers can be clustered into groups depending on the nature of their search behaviour, and the different approaches to information gathering and shopping means that an aggregate measure of total search could hide completely different search patterns. Similarly attempts to quantify search by structured questionnaires and rating scales as used in most of these studies, are likely to overlook the changing use and importance of information sources over time and is therefore an inadequate way of studying such a complex area.

Our own study will therefore argue for the use of an in depth approach to ask the following questions.

- 4) What is the nature and length of premarket and market search? ✓
- 5) What was the preference and use of information sources during the decision process? ✓

Research questions regarding the alternatives and criteria considered will be dealt with in the next section when we move on

to the next stage of the decision process after initial search has been completed, which is the consideration of the evoked set and the role of criteria.



## INFORMATION AND THE ROLE OF THE EVOKED SET IN EVALUATION

It has been suggested earlier that the purpose of search is to gain knowledge to allow the decision maker to clarify a problem, recognise potential solutions and create criteria for judging between the potential solutions.

$$S.B. = f (PK + APS + C )$$

Our model further suggests that this is a sequential process, following rules of simplification with three major search strategies. ( stage 3a, 3b and 3c of the model). We will now focus on research into the nature of these simplification procedures and the role of information, starting with the role of the evoked set as part of the psychology of simplification, and analysing the nature of the evaluative criteria.

We have shown earlier that in Extended Problem Solving three separate conditions exist;

- the product/brand is new to the cognitive structure leading to uncertainty as to where to place it.

- if no existing product class is present in memory then the buyer has difficulty in knowing what to compare it against, i.e. has difficulty in forming an evoked set of alternatives.

- even if an initial evoked set is formed the buyer may be unclear as to how to judge alternatives, i.e. how to discriminate between them and select the most satisfactory.

This leads to two distinct information needs. Firstly, information is required that aids the comprehension of the object for classification purposes and formation of the evoked set. Secondly, information is required to help create criteria for comparison of alternatives within the evoked set.

#### The role of the evoked set

If we consider all the possible alternatives available as the 'universal set', then this contains both alternatives unknown to the decision maker and those known. Of those alternatives with which the buyer becomes familiar through search, incidental learning, and experience, there are acceptable brands, unacceptable brands and over looked or forgotten brands.

The evoked set consists of the small number of alternatives which at the time of consideration, the individual is familiar with, remembers, and finds acceptable for further consideration. (Howard and Sheth 1969 p 26, p211). Figure 3.2 presents a simple model of this.

The awareness set consists of those products which the buyer is aware of, as measured by aided or unaided recall. This will therefore vary over time due to the capriciousness of memory.

The consideration set is those brands which he would consider buying, at the time of the interview or decision.

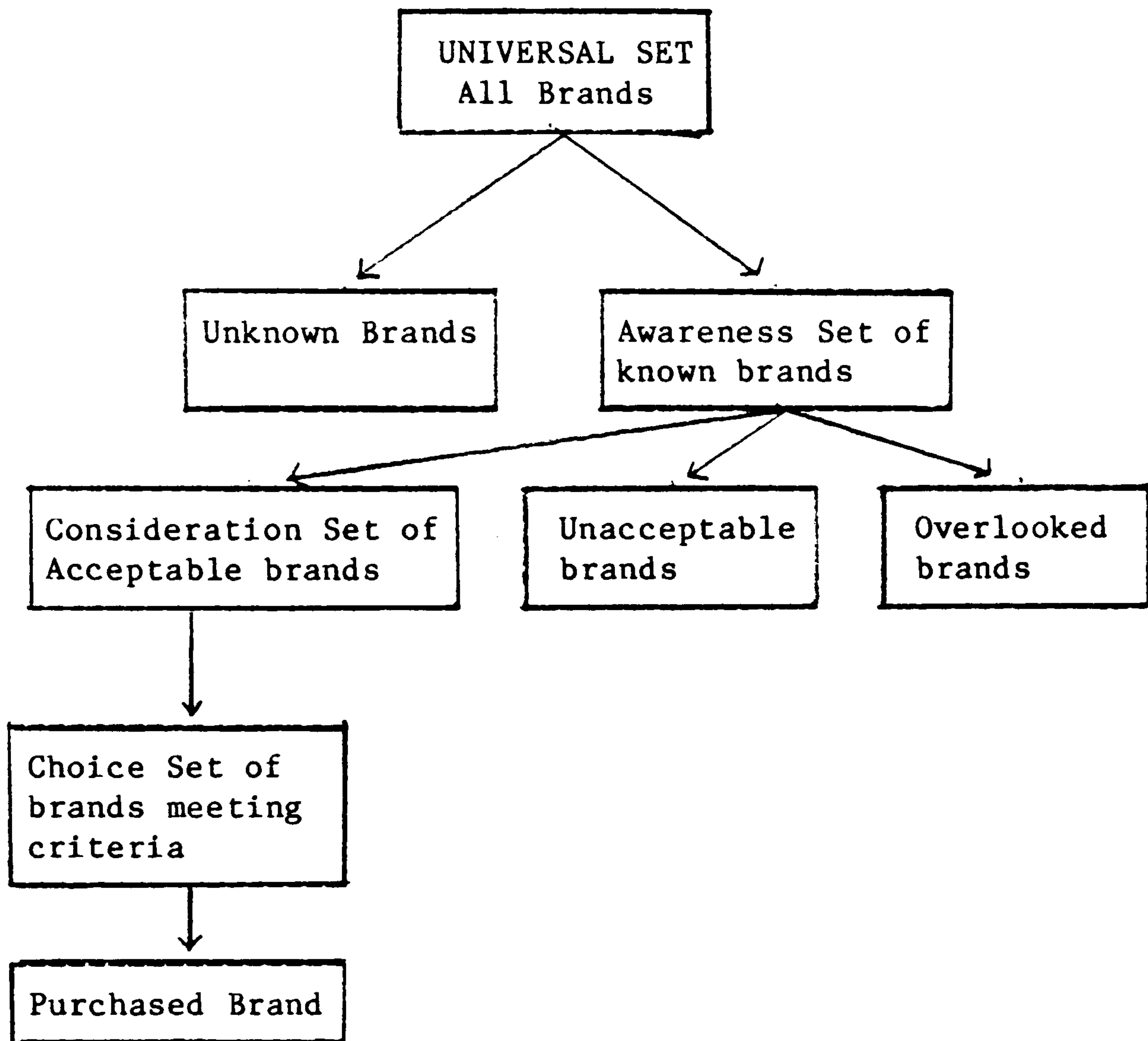


Figure 3:2

The evoked set as a subset of all brands of a product class

"There are a large number of brands that the buyer, though he is aware of their existence, would not consider buying because they are beyond his reach or because they are not perceived as being adequate for his motives. On the other hand any brand may become an alternative in the future either because buyers motives change or because many of the inhibiting factors disappear over time."

Howard and Sheth p211

In the first stage too many products exist to be evaluated in depth and thus a simplistic decision rule is used to reduce the number of alternatives. In the industrial field Buckner (1967) and Bayliss and Edwards (1970) both report that an application of simplifying rules such as "no change of supplier would be considered unless a price reduction of more than 5% was offered". Cunningham and White (1973) report on the setting up of "weirs" or hurdles on one or more criteria such as reputation or image over which potential suppliers must pass to be given further consideration.

Kirby (1975) gives other examples of consumers using similar non compensatory decision rules. Some of these rules will be standard operating procedures "never buy a brand I am unfamiliar with", "never buy oil packaged in plastic", others will be formulated on the spot depending on environmental and situational factors. Continual application of separate decision rules can take place to reduce the items under consideration to a manageable size which will become the choice set. (Pras and Summers 1975, Sarin 1977). A discussion of the various types of compensatory and non compensatory models used during the decision process will be given in a later section.

This two step process is shown in our flow chart with the existence of an initial evoked set (created from memory )helping to determine the degree of problem difficulty (i.e. classified into EPS, LPS, or RRB) then the creation of a consideration set (which may exist in memory if LPS and will exist if RRB) and finally the choice set which is then evaluated. Due to screening rules being applied this choice set is likely to be extremely limited in size and one of the aspects of the research will to be to investigate the workings of the evoked sets.

A further research question is therefore,

6) Does decision making follow the suggested three step process of Awareness set, Consideration set, and Choice set? ✓

Campbell (1973) investigated the existence of the evoked set and the determinants of its magnitude and found that evoked set size was;

- individual rather than product based

- consistent across brands

- unrelated to the amount of brands the buyer was aware of

- was unrelated to demographic details of age, income, education and class

Gronhaug (1973/4) has shown that experience is one of the major limiting factors of the evoked set, and whereas Ostlund (1973) found no relationship between evoked set size and Pettigrews measure of cognitive width, V.Kanti Prasad (1975) found a

relationship with the need for cognitive clarity (as defined by Kelman and Cohler 1959.)

A further question is,

7) "What is the size of the relevant sets created?"

#### **Evaluative criteria and information requirements**

The information requirements which lead to search behaviour can be defined as being of three types (Sune Carlson 1974). Firstly there is Product Knowledge which relates to a manufacturers product range and prices etc. and is usually of a technical nature. Secondly, Process knowledge as he calls it, is knowledge of the marketing, manufacturing and management knowhow which is required in the production and selling of a firms product. This can be better conceptualised as Company Knowledge i.e. perceptions of the firms ability to meet deadlines, satisfy quality requirements and after sales ability. This could be summarised as company image. Carlson further suggests a category called Market Knowledge, which refers to specific market information relating to this transaction, and general market information relating to general market conditions such as price trends, potential new products, cultural changes, potential economic or financial changes.

The Total Information requirements could therefore be expressed as:

$$It = Ip + Ic + Im$$

Where

It = Total Information

Ip = Product Information

Ic = Company Information

Im = Market Information

James Sood (1980) links this to Edith Penrose's suggestion(1959) which was mentioned earlier that Knowledge can be classified and differentiated by the way in which it is acquired. That is, total knowledge consists of both objective and experiential knowledge.

To transfer this to our terminology

$$It = Io + Ie$$

By combining these two ideas the total information or knowledge required to solve a purchasing problem can be expressed as:

$$It = Iop + Iep + Ioc + Iec + Iom + Iem$$

Where;

It = Total information

Iop = Objective product information

Iep = Experiential product information

Ioc = Objective company information

Iec = Experiential company information

Iom = Objective market information

Iem = Experiential market information

An understanding of the buyer's informational requirements, broken down in this way, would enable a communicator to determine what information is likely to already exist in the environment, which the buyer will gain through incidental learning and experience with friend's products or shopping, and what information should he give through advertising and other communication programmes to encourage the buyer to consider the purchase is "right " for himself, to ensure his company's product is included in the consideration set and finally to ensure the criteria used benefit his particular product.

We have already indicated that the role of incidental and experiential learning will be investigated. For our present purposes it is sufficient to note that while this incidental information may create a precipitating circumstance, or inform the buyer of an enabling condition he was unaware of (credit terms etc.), it is also likely to help in the formation of criteria which will be used to evaluate the alternatives. Thus information on market trends can lower or raise expectations regarding price levels or likely features to be found and thus help formulate not only the goals to be achieved but the criteria which will be used by the buyer to allow him to decide if a satisfactory solution has been found.

We have already mentioned the existence of limits on our processing capacity which encourage us to use decision rules to simplify the choices we have to make. Miller (1956) and Campbell (1973) have both shown that the span of recall of information is



limited to approximately seven items and Anderson, Taylor and Holloway (1966) have found in a experimental study that as the number of items in a purchase situation increases, the buyer becomes less sensitive to changes in the attributes in the items involved in that decision, and the information per item declines as the number of items increases.

Myers and Alpert (1968) and Alpert (1971) suggest that there are certain determinant attributes out of all the possible attributes a consumer may know about. Thus while all criteria are important only some are predictive of behaviour. Jacoby, Szybillo and Bosata-Schach (1977) similarly found that a limited amount of attributes, between 3 to 7 of the total, will explain purchase as well as the total amount of predictors. Sharpe and Granzin (1974) increase the complexity of the issue by finding that different use of the same product will result in different determinant attributes and Hansen (1976) points out that the salience and instrumentality of the attributes must be considered if behaviour is to be predicted as the higher the involvement the more criteria will be used in the decision. A correlate is that the criteria will have a narrow latitude of acceptance.

#### **The use of evaluative criteria**

C.Whan Park and V.P.Lessig (1977) suggest that an appreciation of the buyers use of decision rules (or judgemental rules as they

call them) is relevant to an appreciation of the creation of the evoked set, and later search behaviour.

Decision rules are generally of two types, non compensatory and compensatory. Non compensatory rules (or models) are those in which the brands under consideration are compared on an attribute by attribute basis. A brand's weakness on one attribute cannot be compensated by its strength on other attributes. (Thus the name non compensatory)

Non compensatory models are of four main types: conjunctive, disjunctive, lexicographic and elimination by aspects. Most textbooks now give a discussion of this area and therefore only a brief outline of the models will be given with a consideration of their relevance to the decision process.

Decision rules used by consumers

Conjunctive: Select all (or any or first) brands that surpass a minimum level on each of the relevant evaluative criterion

Disjunctive: Select all (or any or first) brands that surpass a satisfactory level on any relevant evaluative criterion

Elimination by aspects: Rank the evaluative criterion in terms of importance and establish satisfactory levels for each. Start with the most important attribute and

eliminate all brands that do not meet the satisfactory level. Continue through the attributes in order of importance until only one brand is left.

Lexicographic: Rank the evaluative criteria in terms of importance. Start with the most important criterion and select the brand which scores the highest on that dimension. If two or more brands tie, continue until one of the remaining brands outperforms the others.

Compensatory: Select the brand that provides the highest total score when the performance ratings for all relevant attributes are added together (with or without importance weightings) for each brand.

(Hawkins, Best and Coney 1983)

A conjunctive decision rule is frequently used in combination with other rules, yet it can be used on its own in certain circumstances (Payne 1976). The conjunctive choice establishes minimum required standards for each evaluative criterion and selects all, or as many as wanted, that surpass all these relevant criteria. In essence the consumer says "I'll consider all (or buy the first) brands that are 'alright' on the attributes I think are important." It thus rejects brands falling below minimum standards on any attribute, and is very useful in reducing the size of the evoked set. It is also used in many low involvement purchases where the consumer evaluates a set of brands one at a time and accepts the first one that meets all the

minimum requirements.

A disjunctive decision rule establishes a minimum level of performance for each attribute, often a fairly high level, and all brands which surpass the level on any attribute are considered acceptable. Using this rule the consumer is saying "I'll consider all (or buy the first) brands that perform really well on any attribute I consider to be important." Instead of rejecting brands which do not meet all criteria as in the previous rule, the disjunctive rule would select brands for inclusion in the consideration set because of a good attribute.

The elimination-by-aspects, or sequential elimination rule requires the consumer to rank the criteria in terms of their importance and to establish a cut off point for each criterion. All brands are considered on the most important criterion and those that do not surpass the cutoff point are dropped from consideration. If more than one brand passes then the process is repeated for the second most important criterion and so on until only one brand remains. Thus the consumer's logic is "I want to buy the brand which passes on the most attributes, starting with the most important, so the final choice has an attribute others do not have." There is some evidence that this rule is used when people are making relatively hasty judgements and imagine that a final product decision is imminent. (Weitz and Wright 1979)

Lexicographic decision rules require the consumer to rank the

criteria in order of importance and then to select the brand that performs best on the most important attribute. If two or more brands tie on this attribute the second most important attribute is considered until one brand outperforms the others. This is similar to the previous choice rule except that this rule seeks to maximise performance on attributes and the elimination by aspects will provide satisfactory performance, (normally on more attributes).

The compensatory model states that the brand with the highest sum of the consumer's judgements of the relevant criteria will be chosen. As some attributes may be more salient than others it is possible to weight the model to allow for this. This model allows a poor feature, which would cause rejection under the other models, to be compensated for by a good feature. A problem with this model is whether the attributes should be added or averaged to give the final score. If the summation is a linear additive model than a brand's overall performance can be improved by getting more attributes considered, and similarly if a producer does not provide information on an attribute this will reduce his overall score. This does not happen with the averageing model, which allows for the comparison of different number of product attributes per product, thus allowing for lack of knowledge. These models are very popular for predictive purposes (e.g. Fishbein) but it is unlikely to accurately describe what actually takes place.

Park and Lessig (1977) note that the conjunctive and disjunctive models are not useful for the purpose of ranking the alternative brands in terms of preference but are appropriate for dividing alternate brands into two sets: those brands that are acceptable and those that are not. They therefore believe that these two models may primarily serve the purpose of identifying those brands which constitute the buyers evoked set for further consideration. Ratchford (1978 p18) argues that the use of decision rules in this way is part of the 'psychology of simplification' mentioned earlier, the tendency for a decision maker to avoid undue cognitive burden when faced with a complex decision (i.e. a relatively large number of alternatives and criteria).

When the problem is viewed as of a simple nature, a Routine Problem in Howard's terminology, the buyer may wish to complicate the buying situation (referred to by Howard and Sheth as the psychology of complication) to gain stimulation and avoid boredom. The disjunctive model, applied to this situation, would allow into the evoked set an alternative brand with an outstanding or unique feature.

Having selected the brands which are found in the evoked set the buyer then continues with further evaluation using one of the other models. They may evaluate these alternatives along a preference scale using the compensatory model, lexicographic or elimination by aspects depending on the level of familiarity and involvement.

Park and Lessig believe the unweighted linear compensatory model is used in Extensive Problem Solving with low levels of familiarity, and the weighted linear compensatory model at moderate and high levels of familiarity, such as in Limited Problem Solving or Routine Response Behaviour.

They argue that:

"When the consumer is unfamiliar with the product it is anticipated that he has established neither a reduced set of evaluative criteria to be used in product evaluation, nor a specific set of attribute weights. Therefore it is not surprising that product evaluations at low levels of familiarity were based upon an average score within the non reduced set of product attributes.

On the other hand, when the consumer is familiar with the product he is expected to have established both a reduced set of evaluative criteria and a corresponding weighting function, making relevant the concepts of utility and salience. We would therefore expect the weighted linear model to represent the consumer's cognitive processes in evaluating brands of a familiar product."

Park and Lessig 1977 p13

The lexicographic model is used when the consumer moves to the end of the familiarity spectrum, according to Park and Lessig. Since a consumer at this stage of Routine Problem Solving has well defined choice criteria and practically no brand ambiguity, he can easily select the brand within the evoked set that is superior on the most important attributes, and follow a tie breaking procedure to the end.

We shall therefore investigate,

8) Can we identify the application of decision rules during the decision process?

#### Nature of Evaluative Criteria

Evaluative criteria are linked to motives, which flow from problem recognition, and memory and beliefs. One of the major uses of information is thus in the creation of the criteria to be used in the evaluation of a product (Engel et al 1978 p368). Research attempting to identify the nature of these criteria to aid in the creation of marketing plans has however met problems. These include the use of different decision rules emphasising different criteria and the changing of criteria during the decision process as the individual learns.

Measurement problems also exist which limit the validity of the findings with post facto rationalisation taking place and the buyer unconsciously projecting a normative model of decision making when asked to select from a preselected list of attributes. This is especially a problem in the industrial field where 'rational' decision making is expected, and in both consumer and industrial situations results in unwieldy lists of criteria, often specific to the particular product or situation and with little transferability.

As an example of the problem consider the response to the question "What do you consider important in this product choice?". It firstly orientates the respondent towards product



attributes and away from market or other considerations and secondly assumes that the respondent is aware of and can articulate the salient criteria, and will state them when asked. The respondent may not however state a criterion as all products were seen as equal on this point (although it was important, such as safety in cars). Also consider the response "Price is most important". This could mean that the respondent won't pay more than a certain figure, that he won't pay \$5 more for a certain feature, would only consider those products in a certain range, or that he knows there are price differences so he will shop around. What is needed therefore is a guided depth interview rather than a prestructured mail or personal interview and this will be argued further when methodology is discussed in a later chapter. At this point it is sufficient to be aware of the limitations of most of the research about to be mentioned.

#### Classification of criteria

One of the first attempts to classify criteria made a distinction between objective criteria (i.e. specific physical features such as low price or quality of material) or subjective (i.e. symbolic values or benefits such as perceived 'youthfulness' of the product.) It is not unknown for virtually identical products to receive widely varying evaluations because of perceived subjective differences (Engel et al p367).

Care must be taken in this sort of arbitrary classification as Cox

(1963) has shown how a buyer may select a product on the basis of a cue, or criterion, which seems to be highly subjective, i.e. has no predictive power as to the capability of the products ability to satisfy the buyers requirements, purely because of the buyer's lack of specialised knowledge. In other words the buyer is being as rational and objective as possible within the constraints he is operating under. Cox gives the example of consumers rejecting a noiseless electric hand mixer as they used noise as a predictive cue for power of motor and therefore assumed the motor was underpowered. Other examples are the sound of a car door shutting as an indicator of quality and durability, the sizzle of suasaes frying as an indicator of taste, and the colour of butter as an indicator of purity.

The above classification can be seen to have had it's effect in the consideration of industrial and consumer decision processes. Industrial buyers with their greater knowledge have been able to use objective criteria in decisions, e.g. the thickness of metal in a car, the power rating of a motor, whereas consumers have either not the ability to understand complex technical information, or the manufacturers carefully suppress such information. In such a case the consumer has no alternative but to use the information available to him (i.e. colour, smell, shape) and to objectively choose on the basis of these limited predictive criteria. The result is the perpetuation of the myth of the rational industrial buyer and the irrational consumer.

Copeland (1924) gives an example of this when he gives 30 consumer motives split into instinctive (13), emotional (10), and rational (7). For industrialists he splits motives into 17 buying motives (all rational) and 7 patronage motives (all rational). Most of these motives, especially the industrial, are still being given today as reasons for purchase of a product or selection of a supplier.

A further problem in the analysis of research on evaluative criteria is that often decision aids are included as criteria, which are not criteria in themselves, but give information on criteria. Thus "friend's recommendation, experience, advertising, reports from independent testing firms, physical examination" (Kirby 1975, Anderson et al 1976) are included. Secondly, physical attributes of the product are merely listed and it then becomes extremely difficult to compare "wall cavity insulation, gas central heating" (Meidan 1980) with "bucket capacity, life of tracks, and operator comfort" (Parkinson 1975). Finally, ambiguous and vague wording such as "supplier stands behind product" (Banville and Dornoff 1973) increases the problems of comparing and building upon past research.

Our model tries to break away from this paradigm and attempts to classify criteria by product, market or company related criteria to allow us to study the application of decision rules not only at the point of sale, which will be mainly product related criteria, but the company and market criteria which were used earlier in the process.

D. Yankelovich (1964) shows the dangers of segmenting a market with an incomplete understanding of benefits, or attributes required by a consumer from a product and Jolson and Spaith (1973) also found that retailers often misunderstood consumer's evaluative criteria, and even when able to accurately rank these criteria were unable to fulfill their expectations on these factors.

Lehman and O'Shaughnessy (1974) found that criteria changed depending on whether it was a routine product purchase, or whether use problems, performance problems or political problems were expected.

Some researchers, instead of merely listing criteria, have used various methods to see if the criteria could be clustered into dimensions. These dimensions presumably would combine into an image, or overall perception of the product.

P. Allen (1977) used Herzberg's theory to group attributes into hygiene and motivation factors, thus identifying determinate attributes, while Anderson, Cox and Fulcher (1976) revealed convenience and service orientated segments in the bank selection field. Klass (1961) classified 24 attributes into 5 categories, Product, Market, Technical, Personal and General in a major study of industrial buyers.

Kiser, Rao and Rao (1974) reviewed the literature and used

motivational research techniques to identify an exhaustive list of 65 vendor attributes which were grouped under six broad categories. Convenience related attributes, Economic/financial related, Calibre/capability related, Image/dependability related, Intercorporate relations related, and Service related attributes.

### **Image as a Dimension**

Image is a comprehensive concept which indicates the general attitude towards an object, but does not indicate the attitude towards specific attributes. It can be assumed that there are certain specific dimensions underlying the total image, each representing different aspects and all combining in the general overall attitude towards the object.

Hansen and Deutscher (1977/78) reconceptualise the idea of image to include attributes (the narrowest most specific constructs), components (aggregation of similar attributes), and dimensions (the most general constructs) which they then analyse using a benefit segmentation approach.

It is generally accepted that information is structured in such a hierarchical manner in the brain (Donohew and Tipton 1973) such that "bits" of information go to make up "chunks" of information. These chunks then help create the gestalt, or total image of the concept or object. Uncritical selection of criteria can therefore lead to some dimensions of image becoming over

represented while others are ignored.

In the area of retailing various studies have been reported into the dimensions of store image and the effect this has on choice of store, and this area was of sufficient interest for a special issue of the Journal of Retailing (winter 1974/5) to be devoted exclusively to it. A review of the area is included in this issue which suggests the results can be synthesised into nine categories (Lindquist 1974/5) that he called image/attitude attributes. These are as follows:- merchandise, service, clientele, physical facilities, convenience, promotion, store atmosphere, institutional factors, and post-transactional satisfaction.

The following studies all used factor analysis as a method of obtaining dimensions. Perry and Norton (1970) uncovered a Personal factor, relating to courteous and knowledgeable salespeople, a Price/quality factor and a Congeniality factor which women used to evaluate fashion stores. Stephenson (1969) identified 8 image dimensions, Advertising usefulness, Physical characteristics, Convenience, Reputation among friends, Range of merchandise, Store personnel, Price /value, and Dependability, when studying food outlets. Vaughn and Hansotia (1977) investigated the relative importance of characteristics that may influence a person's choice of shopping centre and obtained a Merchandise/atmosphere index, Convenience index, and Location/distance index. Dempsey (1978) studied vendor selection

in organisational buying in a new buy and a modified rebuy situation using product specific factors and company specific factors to uncover the dimensions. He found two dimensions, vendor stability and geographic affinity were used as a basis for deciding if a vendor was qualified as a possible source, and three other factors as the basic determinants from this qualified group of suppliers. These were Basic economic criteria, Attendant services, and Assurance mechanisms. Another study investigating shopping centre choice (Gentry and Burns 1977/8) found four factors, relating to price and product range, traffic/parking, building/landscaping and type of customer and finally store hours/advertising.

It seems difficult to relate these dimensions to our study although they may have relevance to the choice of outlet when the product offering is seen as being homogeneous with the store giving high service or other added value attributes, as in a rental situation.

We shall comment on four dimensions which we would expect to be important in our case. A price/value dimension, which would be related to a product dimension, a company dimension and a market dimension.

#### **Price/Value dimension**

This product related dimension is, as expected, one of the most frequently mentioned dimensions. This includes such price related

considerations as extended credit, price reductions for quantity orders, cash payment etc. which may increase or reduce the total cost. Price is often related to quality, and sometimes used as a surrogate indicator of quality, and thus should be considered on a wider 'value' dimension rather than a simple economic cost.

While price is at the basis of economic theory of demand and supply consumers, in particular, have consistently refused to behave in the way economists believe they should. A study by Progressive Grocer in 1964 found a surprisingly low knowledge of the price of a range of grocery products, 80% of shoppers not knowing the price of 60 highly competitive grocery items. Gabor and Granger (1964) similarly found a lack of price knowledge and sensitivity, which varied greatly over product items. Haines (1966) found that consumers were completely unaware of the prices of goods they had just purchased. Dickson (1966) reported that only 11.9% of his sample of industrialists felt an obligation to place an order with the lowest bid and Kelly and Coaker (1976) report similar findings that price is not the major determinant of choice.

It now seems that consumers operate within a range of prices that they are willing to pay as well as a reference price. Consumers seem to group unacceptably low as well as unacceptably high prices into categories and ignore them.

As said earlier price interacts with quality perceptions, and



also store image, aftersales, etc. making it a much more complex dimension than might at first seem the case. The general conclusion is that price is of less importance than initially thought and is often a constraining rather than predictive factor.

### Product Dimension

Lists of physical attributes are often specific to the product being considered and thus while of great use to individual manufacturers to help in planning communication packages are of less help in building a general theory or model of choice.

Good packaging is sometimes mentioned as a separate item (sales Management 1970) especially if the packaging is felt to be intrinsic to the product, or seriously affects the quality of the delivered product. One study (Sales 1970) showed that in cosmetics and toiletry packages the majority of consumers would pay more for convenient or efficient packages. It must be remembered that packaging performs the same function as styling and often aims at the subconscious level, using symbolism and imagery and thus may influence ratings on other criteria.

The depth, breadth and width of the product line is quoted as reasons for choice in both the consumer and industrial field. This can be either that it is felt the company has a better chance of satisfying changing needs, or choosing an outlet stocking a manufacturer with a wide range helps in the selection

process and reduces the need to consider alternative sources.

### Company Dimension

Often the brand or company name is used as a surrogate indicator of other attributes such as quality, reliability etc. Its importance, like price, will vary depending on the ease with which other attributes can be measured. Reliance on a well known name of good reputation is thus a way to reduce risk.

In the industrial field the choice of company is sometimes synonymous with the choice of product and attention is therefore focused on reliability and speed of delivery, reputation of the firm and sales staff for being trustworthy, honest, reliable, knowledgeable. The importance of personal relationships is also stressed, presumably because this allows the buyer to assess the seller's honesty, integrity etc. as well as helping the buyer assess the firm's ability in general. It is this area which is perhaps closest to the subjective term 'image of supplier' in that it is an internalised personalised perception of a company's attributes.

In the consumer situation a lot of these duties are transferred to the store from where the purchase will take place, and in some situations the choice of where to buy the product from is more important than which product to buy. This is especially the case if individual stores have the ability to change the nature of the

total offering by modifying price, service or other elements of the marketing mix. Some researchers stress the importance of good communication, to be able to give product and market information as required and the general accessibility of personnel. This may well be related to the wish for personal relationships and the company's or stores ability to foresee and solve problems the buyer may have. In our study we would expect video/tv renters to be interested in this dimension.

#### **Market Dimension**

Market criteria are likely to be of two sorts. General market conditions create the environment within which firms operate and consumers live and thus changes in the inflation rate, taxation, import controls and quotas, laws relating to trading standards, and the general market structure combine to create enabling conditions and precipitating circumstances that result in recognition of a problem. Information on these areas is usually obtained passively by incidental learning or experience and is therefore unlikely to be reported by respondents or recognised by researchers.

More specific market criteria relating to the specific exchange transaction include location, convenience and experience. Location is also a factor relating to convenience as it relates to the ease with which information can be collected, stores can

be visited etc. Other convenience factors include whether delivery is offered, parking facilities, acceptable opening hours, use of credit cards and other ease of payment criteria, availability. These do not effect the actual product or company but merely make the transaction pleasanter and more convenient for the buyer.

Knowledge about these factors is often gained from previous shopping trips leading to experience being often quoted as an important determinant of choice. What is meant is that existing knowledge of market conditions was easily available through memory and was felt to be sufficient to use to limit the search process.

We shall therefore investigate our final area of the decision process,

9) "What are the criteria used in the decision process, and do these criteria fit the Product, Company, and Market classification suggested?"

10) "What is the relative importance of the criteria used?"

### **Conclusion to Chapter**

In this chapter we have introduced a set of search rules which may be used to determine the level of search activity undertaken and linked this to our model of the decision process. We have

suggested how these search rules relate to the workings of the evoked set in a three stage process and made suggestions about the three sets. We have also suggested questions about the type of information acquired and the relevance of the various sources. We have also suggested how criteria will be created from this information and the judgemental rules likely to be used in the decision process.

To review our research questions:-

In the first section we considered the nature of the problem recognition and problem categorisation and asked the questions,

- 1) What is the nature of Problem Recognition?
- 2) Can we identify the elements that guide an individual in categorising problems?

We then moved on to consider the nature of search behaviour and asked,

- 3) What is the role of incidental and experiential learning in decision making?
- 4) What is the nature and length of market and premarket search?
- 5) What is the preference and use of information sources during the decision process?

The third part of the chapter discussed the sequence of incremental decision making and role of the evoked set during evaluation. A further set of research questions were suggested.

- 6) Does decision making follow the suggested three step process

of Awareness set, Consideration set, and Choice set?

7) What is the size of any set created?

8) Can we identify the application of decision rules during the search process?

9) What are the criteria used in the decision process, and do these criteria fit the Product, Company, Market classification suggested?

10) What are the relative importance of the criteria used?

We now move on to consider the variables external to the decision process which may influence its functioning. The next chapter splits these into Environmental, Exchange and Individual factors and will discuss each area in turn.

## CHAPTER FOUR

### ENVIRONMENTAL, SITUATIONAL AND INDIVIDUAL FACTORS

#### INFLUENCING THE DECISION PROCESS

In the previous chapter we outlined our model of the search process and its major stages and concepts. This conceptual framework would be overly simplistic if we did not consider the many external variables which will influence the decision maker during this process.

In Chapter Two we gave details of other authors attempts to create both process and general models of buyer behaviour and they have used many alternative ways to categorise these variables. Howard and Sheth (1969) use the terms "exogenous" and "endogenous" variables, although the distinctions are often not clear. Sheth (1973) uses Individual factors, Company and Product specific factors, Interpersonal factors and Situational factors. Webster and Wind (1972) split them into Environmental, Organisational, Interpersonal and Individual. The organisational variables, such as structure, climate, etc. are not of interest here and we shall be arguing that the environmental factors are also of too general a nature to be considered without the use of specialised research techniques. We shall therefore be looking at the major situational and individual variables which have been

shown to be related to search behaviour and considering whether they will differentiate between video owners and non owners.

### **Environmental Factors influencing Search Behaviour**

Environmental influences are subtle and pervasive. They are hard to identify and describe and they provide the context within which situational and individual factors in turn exert their influence.

Webster and Wind (1972) when discussing their model of organisational buying state,

"One way of conceptualising environmental factors is as a set of constraints on the organisation- a set of predetermined boundaries beyond the control of the organisation and its members. In another sense, the environment is a source of information which the buyer takes into account in his decision making behaviour."

They then point out that this consideration may be explicit, as in considering the significance of the Trade Descriptions Act, or it may be implicit as in the case of basic cultural values and beliefs.

Baker uses the idea of enabling conditions and precipitating factors to allow him to identify determinants of the speed of adoption and the action of these two concepts can be seen in the Problem Recognition stage of the search model.



A problem arises when the decision maker becomes aware that his objectives and goals are not being met in a satisfactory manner. A precipitating environmental factor would be a change relating to some aspect of the individual's existence: e.g. an individual's house becoming part of a smokeless zone may require a reconsideration of heating methods, necessitating the purchase of new equipment. An environmental enabling condition would be the relaxation of restrictions on credit, or the giving of government grants, to allow the individual to purchase such goods which may not otherwise have been economically feasible.

The environment also effects the decision process by its control of information sources. Governmental decisions will effect the amount and type of television and radio advertising, local government decisions will effect the placing of posters and their content, and the political and economic environment will effect the amount and type of newspapers available.

Finally the environment influences the alternatives considered as solutions to problems, and the nature of criteria used in the evaluation. An example of our restriction of alternatives could be governmental or social pressure to "Buy British", and the changing acceptability of petrol consumption and durability as criteria for judging cars rather than image, status and speed.

While in our study it is possible certain environmental factors may increase or decrease the amount of search, and may differentiate between owners and non owners, or between renters

and purchasers of video recorders, we shall follow normal practice in studies which are not specifically interested in these factors. Consumer researchers often take these influences as given for all situations and merely consider them when cross cultural comparisons show their relevance, as in international marketing situations. More direct environmental factors which directly effect the choice situation are often included under the general heading of situational factors and we will discuss these in the next section.

#### Situational factors influencing search behaviour

The situation can refer both to the potential usage situation perceived by the individual, and the actual choice situation. To fully understand a choice it could be argued that the researcher must have knowledge of the consumption situation, the purchase situation and the communication situation (where and how was the communication heard) (Assael 1984). The importance of the situation on choice is often taken to be sufficient in itself to explain behaviour without the need to refer to such concepts as motivation, attitudes etc., and this is the argument used by Foxall (1983). Other recognise the importance of situational factors but suggest they are mainly operative in low involvement or low brand loyalty situations.

Russell Belk is a major author in this field and he defines situational influence as,

"...all those factors particular to a time and place of observation which do not follow from a knowledge of personal (intra-individual) and stimulus (choice alternative) attributes and which have a demonstrable and systematic effect on current behaviour."

Belk 1975

Belk goes on to classify five types of objectively measured situations: physical surroundings, social surroundings, temporal perspectives, task definition, and antecedent states. For a detailed consideration of this area and its application to marketing strategy the reader is directed to one of the many consumer behaviour text books. (Hawkins, Best and Coney 1983 p30-57, Assael 1984 p463-483). We shall here only briefly outline the main points of relevance.

**Physical surroundings** are the most readily apparent features of a situation, such as geographical and institutional location, sounds, decor, lighting, weather, visible configurations of merchandise or other material surrounding the stimulus object.

Detailed psychological work has been conducted on the effect of physical surroundings such as music in supermarkets, colour of surroundings, colour of packaging, or placement of products on a shelf in relation to height and other products, but these are not of interest in this study.

**Social surroundings** include other persons present, such as a friend or purchasing pal, their characteristics and roles and interpersonal interactions.

Social surroundings have long been recognised as important, with Katz and Lazerfeld showing the effect on communication, and others showing the effect of the family as a shaper of values and behavioural dispositions. We shall look at this area further when discussing opinion leaders and interpersonal influence.

Temporal perspective relates to the time of day, the time of year, time until payday, and any time constraints imposed by prior or standing commitments.

The temporal dimension has often been studied as a constraint on purchase, and its effect on search and decision rules.

Howard and Sheth (1969 p77) include time pressure as an exogenous variable relating to intention and search behaviour. They define it as follows,

"It is the amount of time required to perform these acts (of purchase and consumption) in relation to the time he has allocated himself for doing them."

They believe time pressure will lead to a more vigorous search but will limit the evoked set of alternatives and criteria.

Katona and Mueller (1954 p35) found that,

"urgent need was another situation in which the absence of careful deliberation was found. When people felt they could not afford to wait, their purchasing process differed substantially from decision making under other circumstances."

They found that urgent need lead to a shorter planning period, reduced information seeking, and less brand features considered. They note however it is not possible to draw a precise line between purchases that are urgent as a matter of necessity and those that are discretionary as such a judgement is entirely subjective.

Gronhaug (1975) found the relationship between search and time pressure to be the opposite to that expected, but he had a simplistic measure of search. In an earlier study he had (1973/74) found that time pressure reduced the size of the evoked set, but again the methodology was questionable.

Carmen (1970) indicates that brand loyalty, buying convenience foods and less shopping are a common response of working wives to a lack of time.

Wright (1974, 1975) suggests that the "harassed " decision maker operating under time constraints restructures the task using simplyfying strategies. These include giving greater weighting to negative attributes and reducing attributes considered.

The problem is often in measuring the effect of time pressure, to differentiate a decision process limited through choice and one limited by other factors. An in depth study of a decision should be able to uncover pressures on the decision maker to shorten the decision process, although they may be subtle and not recognised, and differentiate this from the wish to simplify the decision

process which operates in all situations.

Task definition features of a situation include an intent or requirement to select, shop for, or obtain information about a general or specific purchase. In addition task may reflect different buyer or user roles anticipated by the individual. A person buying a product as a gift would act differently than if the product was for personal consumption, buying for the family to consume will be different than buying for consumption by friends.

The task in obtaining a video recorder should thus differ greatly depending on whether the shopper is considering rental or purchase and this will be discussed later in the chapter.

Antecedent states are momentary modes (such as acute anxiety, pleasantness, hostility) or momentary conditions (such as cash on hand, fatigue, illness) rather than chronic individual traits. These are immediately antecedent to the current situation and must be distinguished from those moods and conditions which follow from the purchase, and may be antecedent states for the next purchase.

Impulse purchases would seem to be strongly influenced by temporary moods such as these, and emotional states may result in different motivations for shopping. Equally, a momentary condition such as thirst may be immediately satisfied by the

purchase of a drink. Low involvement purchases may thus also be influenced in this way but one would not expect a high involvement good, considered over time, to be seriously affected by antecedents states other than at the final point of sale.

In our study these momentary, transient variables will not be specifically investigated, as in a high involvement situation their impact should be limited. However, the nature of an in depth study means that the researcher will be sensitive to their influence, while not specifically focusing on this area.

The stimulus object, or the physical nature of the product, may affect the individual in many ways depending on the benefits expected to flow from its attributes. We have already argued that it is the perception and interpretation of these attributes by the buyer which is important, and thus identical products may invoke divergent behaviour from different buyers.

As with the physical surroundings of the stimulus object these are best investigated by experimental methods and are not of immediate interest to our study, other than their use as criteria in the choice process.

We will now discuss an aspect of task definition in more depth, the choice between rental and purchase.

## Rental or Purchase

As mentioned above, the perception of the task facing the decision maker is likely to influence the individual's search behaviour, partly by determining the importance of the purchase act to the individual and also by influencing the mental set he brings to the problem. In the case of some consumer purchases, such as television and video recorders, the task is further complicated by the need to consider the mode of acquisition of the product.

In most consumer purchasing decisions the alternatives are to buy, postpone, or not to purchase but in the Television and Video market an almost unique alternative exists for the consumer, the choice to rent the product of interest rather than outright purchase. This choice between rental and purchase and its effect upon the decision process is also one with a paucity of published research despite its unique features and the size of the market.

Livesey (1971) investigated the opinions of TV renters and owners in the UK about the advantages and disadvantages of TV rental. As could have been expected, Livesey found considerable differences emerging, with renters concentrating on advantages and set owners predominantly citing disadvantages. However, as can be observed from Table 1 the sequence of importance remains practically the same throughout with only the emphasis changing.

He shows the principle advantages of rental to be the absence of



repair costs, servicing efficiency and an initial cost advantage, while against are greater long run expense and (to a lesser extent) the set never becoming the subscribers property.

Since 1970 set efficiency and reliability has improved and it is possible that the major two factors as stated are of lesser importance in TV rental, although they will still be relevant for video rental. The results also seem to emphasise product or financial related consequences, rather than any elements of uncertainty over performance or changing product features.

**Table 1 Attitudes towards renting by current  
set owners and renters**

Advantages	% of respondents mentioning factor			
	SET RENTERS without prompt    prompted		SET OWNERS without prompt    prompted	
No Major outlay	22	57	3	7
Sets can be changed	2	15	3	4
No repair costs	67	95	14	35
Less delay in repair	35	90	7	28
Other	2	5	2	2
Disadvantages				
More expense in long run	17	46	56	95
Rental Co.s overcharge	1	9	4	26
Set never your own	5	12	27	63
Other	0	0	18	21

Source: Livesey 1971

A rental agreement normally continues until some precipitating circumstance necessitates a decision to maintain or terminate the rental. It could be expected that the risks associated with repurchase of a television would be significantly less than previously, assuming the previous experience had been satisfactory and there had been few technical innovations requiring further information on alternatives or criteria, as consumers would be better placed to assess the purchase due to the experiential learning which had taken place. For these reasons outright purchase may be more attractive than rental (which is dearer in the long run) to satisfied rental subscribers hoping their next set will be as reliable. Less self confident renters, or those with unsatisfactory product performance may still prefer renting to avoid risk. If the performance of both rental company and product has been poor then the renter may still prefer rental, but with a different company.

It is possible to hypothesise therefore that renters will perceive a higher risk in owning a product than in renting, renting thus being used as a method of reducing the consequences of the action by reducing initial outlay and commitment to the decision. Similarly those consumers who were uncertain as to their ability to judge a product should prefer rental. These two areas will be explored later when we discuss the relationship of risk perception and self confidence to ownership and non ownership, rental and purchase.

Livesey's study is now over 13 years old but a later study investigated this area, and included video rental which can be hypothesised to be in the same situation as was colour television 13 years ago. (Fletcher and Napier 1983).

The authors first noted that their findings on the initial decision to rent or buy seemed to support Livesey's study, and then went on to investigate current dispositions to television and video rental.

They split their analysis into current TV renters and buyers and analysed their attitudes to rental separately and the following is a summary of their findings.

For current TV renters the initial reason for choosing TV rental involved the initial high cost and uncertainty over the technological reliability of the product, but no one specific criterion dominated the choice of company. Instead a mix of features was present with particular emphasis on personal experience, or the experience of friends and relatives, show room convenience and competitive terms/price.

The main advantages of rental were related to the convenience it affords to the customer, and although respondents were aware of the greater cost involved with rental they were quite willing to accept it in return for the service benefits. A strong element of inertia was evident with renters not bothering to update sets

unless the existing set was faulty, and not bothering to consider changing to purchase. It was also considered that no one specialist rental organisation offered a significantly superior package. It thus needed a major circumstance to precipitate a revaluation of the situation before change was considered and then purchase would be an option.

For current TV owners they found that renting had been considered but rejected on two main counts. The principal reason was the "greater cost" of rental, even with the superior service obtained. Another significant factor was the moral objection of some buyers to the rental concept, equating it with hire purchase. The set owners were aware, and slightly envious of, the advantages that rental could confer, particularly with regard to repairs and servicing, but did not think they merited the extra cost, especially considering the increased reliability of colour TV. To some extent it was noticed that set owners with no direct experience of rental tended to equate its standard of service with those organisations with whom they had experience, e.g., domestic electrical appliance repairmen, and thus be pessimistic about the claims of prompt service. Set owners tended to view colour TV as relatively homogeneous shopping goods and while there was some trade-off between features cash price was of paramount importance. The likelihood of buying the set from retailers offering conventional customer service was only considered if their price was identical or only marginally more than a discount outlet. Any shopping around normally was limited

to these discount outlets, although respondents were generally dissatisfied with the impersonal nature of the stores and lack of knowledge of the sales staff, and tended to use traditional outlets for information and advice.

#### Overall attitudes for Video rental

It has been optimistically stated that by definition every colour TV owner or renter is a potential video recorder customer, and certainly the specialist rental companies are pinning their survival on its mass market success. In general comments were made regarding the "moral" aspect of watching "too much" TV by a minority of the AB social group, perhaps reflecting Scottish values or perhaps indicating a wider felt constraint to adoption. Some anxiety was also present over the complexity of operation of a video recorder and the issue of format incompatibility tended to worry most TV owners. Doubts were also cast over the accuracy and impartiality of the advice likely to be given by sales staff which, as with colour TV sets, suggested the need to consult magazines and specialist shops before deciding - and then looking for the cheapest price or terms. Although experience with video recorders was limited respondents cited their experience with other recent examples of technological progress e.g., digital watches and TV games, to suggest that prices were already falling and would reduce further thus discouraging outright purchase at the current time. Rental was thus attractive as it allowed for the model to be updated as the technology progressed.

Those in favour of purchase, because it was cheaper and could be sold later, would purchase from a reputable company, and perhaps with a maintenance contract, not relying on a local individual for service. This, Fletcher and Napier concluded indicated a higher degree of perceived risk than for colour TV. The salient features of the group discussions with regard to video rental was that it was definitely a "good idea" but of limited current appeal. It was felt that either a specific need must exist, such as night or evening shift work, clash of viewing habits between members of the family, educational usage, or a high level of disposable income.

The elements of relevance to this research are the attitudes towards the shopping behaviour required. If colour TV is seen as a relatively homogeneous shopping good, does this apply to video recorders? If so then search will be mainly to find the best price rather than to compare features. If on the other hand it is seen as a high risk speciality good then substantial shopping effort is to be expected. Secondly, if all rental outlets are considered to offer a similar package then it would be expected that limited search for and consideration of alternative rental outlets would be found.

The question therefore exists:

11) "How much does the mode of acquisition, rental or purchase, effect the decision process and search behaviour."

It is to be expected that purchasers of video recorders will exhibit more search and deliberative behaviour than renters. There will be a greater initial payment and a long term commitment, and the choice of alternatives is wider. This should result in greater use of information sources and shops in an attempt to create the evoked set and determine the important criteria.

Renters will be limited by the, normally unbranded, range offered by the rental outlet. It would be expected that in this situation more attention would be focused on the attributes of the retail outlet, both as a surrogate indicator of video quality and to assess the outlets service offerings. This would be most efficiently done by actual visits to outlets to inspect the range of offerings on display and by talking to salespersons, rather than by use of the mass media.

The second question is "Do renters and purchasers differ on such variables as beliefs, knowledge, experience, self confidence, risk perception, opinion leadership, interpersonal influence, or self esteem.?" We will be introducing these concepts in the next section and their relationship with rental and purchase will be dealt with there. ✓

## Individual factors influencing search behaviour

The study of individual factors influencing search behaviour can take many different approaches depending upon the discipline the researcher invokes. Our approach will be to study variables which have been reported in the consumer behaviour literature as influencing various aspects of our model, such as Risk perception, Confidence, Experience and Knowledge, Opinion leadership, and socio-demographic factors.

### Role of Beliefs, Experience and Knowledge on Search

These three concepts are interrelated and as such they will be considered together, although it is possible to separate them for the purpose of measurement and hypothesis testing.

As stated earlier if a solution to a recognised problem is remembered then it can be implemented with no search activity. This, of course, is what takes place in habitual or routinised response behaviour. If however the consumers requirements have changed, or if the products have changed then search behaviour should take place.

One of the major distinctions between Extended Problem Solving and Routinised Response Behaviour is the amount of existing information pertinent to the problem and its solution. The more knowledge which exists the less searching behaviour need take



place. This perhaps obvious statement has been borne out by numerous research studies into the relationship of experience and search, (Green, Halbert and Minas 1964, Saleh and Londe 1972, Gronhaug 1972) although it is noted that this experience should be satisfactory experience (Bennet and Mandell 1969) as dissatisfaction can be a major cause of extra search effort (Luffman 1974). Also, for learning to take place leading to less searching the problem must be perceived as similar to previous problems (May 1969, Swan 1969).

Katona and Mueller (1954) suggested that experience should be conceived more broadly than they had done in investigating first purchase, repurchase, and use, of the good under investigation. Questions should not be limited to previous experience with the same appliance but also ask about purchases of related goods.

This important point relates to the transferability of knowledge and experience which we have discussed earlier when considering the classification of problems along the continuum of difficulty. Peters and Venkatesan (1973) suggest a split of total experience and specific experience.

While experience by purchase or use of the product may be one way of gaining buying expertise knowledge can also be gained objectively from the media. Previous measures of experience based on repurchase have thus combined these two forms of learning as a person who has repurchased a product has gained knowledge both from the previous search and from the use or consumption of the

product. It should also be noted that a person might be the 'buyer' of a good but not the 'user', and would not therefore gain experience about the product from consumption.

It should also be remembered that two individuals with the same level of experience and knowledge may vary greatly in their confidence in their ability to judge between products, which will also effect the amount of search undertaken. It is thus to be expected that these three concepts of experience, knowledge and what is known as specific self confidence will be related to each other and possibly form a more meaningful composite concept called buyer expertise. Knowledge and experience are likely therefore to differ between the two groups leading to differing belief structures.

Pickering and Greator (1980) have investigated this differential perception of products between owners and non-owners, buyers and non buyers. They argue that intuitively it might be anticipated that owners and non-owners would have different perceptions of a particular item. Owners might be expected to perceive an item they owned in a more favourable light than non-owners. On the other hand they point out that the reality of experience with the ownership of a particular item might lead to a less favourable view of it.

They measured the two groups on 16 semantic differential scales and found that owners had a more favourable perception of the

characteristics of durables than non owners. This is reflected in greater emphasis by owners on the importance of the items, a more favourable view of their performance, less concern about purchase and running costs, and greater confidence about future purchase of these items.

After discriminant analysis they concluded that owners and non owners do have quite different attitudes and that owners were more likely to emphasise that the item concerned was more a necessity than a luxury, they were better able to afford to buy it from their present income, their peer group was more likely to also own the item and they considered it more reliable.

They also analysed these attitudes, or rather beliefs, to see if they distinguished those who bought within 12 months of the original survey. They found that buyers had more favourable perceptions than non buyers on most statements and were thus more conducive to a purchase decision, but this was not as strong a difference as with owners and non owners. They also found that a statement of expectation to purchase was related to their actual purchasing behaviour.

Another statement which generally discriminated was the belief that the item was a necessity rather than a luxury and that it contributed to the standard of living.

The research can be criticised in that the semantic differential scales were not in fact semantic differentials, merely being

bipolar adjectives with often no evaluative dimension (although Pickering assumes one), often not opposites, and often not applicable to the product in question (can one rent a record player or vacuum cleaner?), and he was unable in the second analysis to separate first time purchasers from replacement purchasers.

However it does suggest that owners and non owners, and buyers and non buyers can be distinguished in terms of their perceptions of the characteristics of the products concerned.

A further set of beliefs which may discriminate between owners and non owners is related to the perception of the sort of person who is thought to have a video recorder. If this perception is 'negative', or unrelated to their own self perception then, following from Pickering's finding that owners thought their friends were likely to have the product, ownership is unlikely.

The beliefs, knowledge and experience of a product will be an integral part of the decision process, but it is also possible to treat them as external to the decision process and relate them to the degree of search behaviour which will take place. An important question is therefore do owners of the product in question differ from non owners on these variables. Also, does mode of ownership (purchased or rented) relate to the beliefs, or perception of knowledge or experience held.

It would be expected that owners would have more favourable beliefs about ownership of the product than non owners. This may not be the case if the ownership has not lead to the benefits expected, or ownership is not considered to be optional.

Secondly that they would perceive themselves as having more experience, and more knowledge than non owners. This again might not be the case if the product was bought without consideration, such as an impulse purchase, in which case knowledge through objective learning gained from search would not have taken place. Experience should be gained through usage, and even if owners considered they had little experience this should still be more than non owners. This assumes that non owners have not gained experience elsewhere from a friends or relatives product, or a similar product, which has lead him to have unfavourable opinions about the product. In this case non owners might well have more experience than owners.

We thus have some Hypotheses to test:

Hypothesis 1 Cognitive beliefs about video recorder ownership will differ between Video owners and non video owners

Hypothesis 2 Video owners will have more favourable beliefs about video recorders than non video owners

Hypothesis 3 Video owners will differ from non video ownerson their perception of the sort of person who has a video recorder.

Hypothesis 4 Knowledge will be higher in video owners than in non video owners.

Hypothesis 5 Experience will be higher in video owners than in non video owners.

Hypothesis 6 Experience and knowledge will be positively related.

## Confidence

In the marketing literature confidence has two distinct meanings as initially highlighted by Cox and Bauer (1964). One dimension is that of Generalised self confidence, (a personality variable more correctly called self esteem). The other is Specific self confidence and relates to the respondent's confidence in performing a specific task or in solving a specific problem. Both these concepts were seen as being related to risk perception and persuasibility and gained a great deal of attention in the 1960's and 1970's.

Generalised self confidence has been defined as :-

"the evaluation which the individual makes and customarily maintains with regard to himself: it expresses an attitude of approval or disapproval, and indicates the extent to which the individual believes himself to be capable, significant, successful and worthy."

Coopersmith 1967 p4

Specific self confidence is one of the major variables in Howard and Sheth's model described earlier and they believe it explains both the buyers search effort- the amount, source and timing- and his probability of overt action of purchasing the brand. It regulates his information input and influences his purchase act (Howard and Sheth 1969).

Howard later states that:-

"confidence is the buyers subjective certainty - his state of feeling sure - in making his judgement of the quality of a particular brand."

Howard 1974

He also refers to the work of Cox and Bauer on specific self confidence and makes it clear he is referring to the same concept.

Cox and Bauer also used a more general measure of "intermediate confidence" which referred to how good a judge the person was in judging the product class which they found (1967) was less successful in predicting attitude change than either general or specific self confidence. Other authors such as Cunningham 1967, used the more general question which they admit may measure the respondent's perception of her ability to discriminate amongst brands and not necessarily her self confidence in selecting a new brand.

The difficulties of the brand specific question lead other researchers to follow Cunningham's lead and Gronhaug (1975) asks buyers to rate how they evaluate themselves as a buyer in comparison to other (car) buyers and uses this as a measure of specific self confidence. Bell (1967) also uses a similar approach referring to the confidence in efforts at buying and ability in buying a new car, thus again referring to the product class. Herman and Locander (1977) used a scale developed from Bell's study but made it specific to the task of choosing a best buy from five alternatives. Peters and Venkatesan (1973) in an



industrial study asked about the specific self confidence, or degree of faith the buyer had in their judgement or ability to evaluate various products.

The initial interest in confidence, both specific and general, as they had been found to be positively related (Barach 1969, Bell 1969, Dash, Schiffman and Berenson 1976) was in its relationship to persuasability. Initially a negative linear relationship was found (Janis and Field 1959) but Cox and Bauer's finding (1964), supported by Barach (1969), of a curvilinear relationship caused a certain amount of confusion (Schuman and Perry 1969, Bauer 1970, Bell 1969). Bauer suggests a curvilinear effect holds for both males and females in problem solving situations but perhaps not in psycho-social situations.

This suggests that if self confidence mediates a person's susceptibility to social influence, then opinion leaders and word of mouth communication should be of major importance in low self confidence situations. Herman and Locander (1977) and Taylor (1974) had found that risk handling methods, of which search is one, and general self confidence were related as were decision styles (Barach 1969, Wilson 1971).

General and specific self confidence were found to be related to information source usage by Gronhaug (1975), Howard (1973), O'Brien 1969, Lampert and Rosenberg 1975, but no relationship was found by Herman and Locander 1977, and Zickmund and Scott (1973).

The conclusion from this is that if confidence is related to intention, search, perceived risk and persuasibility it is also likely to be related to ownership of certain products. Peters and Venkatesan found this to be true for specific self confidence when studying the adoption of computers and state, "lack of sufficient self confidence apparently lead decision makers to delay or defer the decision".

Specific self confidence is likely to be low in both groups as the product is in the early stages of the product life cycle and few individuals have had much repurchase experience. However some individuals will have more likelihood of ownership than others.

Thus individuals who have not delayed, i.e. owners of video recorders, should have higher generalised and specific self confidence than non owners. Similarly, as rental can be seen as a method of delaying the decision to purchase, purchasers of video recorders should have higher generalised and specific self confidence than renters.

This suggests the Hypotheses:-

Hypothesis 7 Generalised self confidence will be related to Video ownership, with owners having higher confidence than non owners.

Hypothesis 8 Specific self confidence will be related to Video ownership, with owners having higher confidence than non owners.

Hypothesis 9 Generalised self confidence will be lower for video

renters than video purchasers.

Hypothesis 10 Specific self confidence will be lower for Video renters than video purchasers.

Hypothesis 11 Generalised and specific self confidence will be positively related to each other.

Hypothesis 12 Specific self confidence will be related to knowledge and experience.

### Opinion leadership

Opinion leadership has been defined as,

"the process by which one person (the opinion leader) informally influences the actions or attitudes of others, who may be opinion seekers or merely opinion recipients. This influence is informal and usually verbal, though it may be visual as well."

Schiffman and Kanuk 1978 p262

Katz and Lazarsfeld initially defined opinion leaders as those individuals who are, "likely to influence other people in their immediate environment,"(Katz and Lazerfield 1955) while Berelson and Steiner (1964) describe an opinion leader as,

"Those trusted and informed people who exist in virtually all primary groups, who are 'models' for opinion within their group, who listen and read in the media, and who pass on information and influence to their circle of relatives, friends and acquaintances."

Berelson and Steiner 1964 p550

This last definition suggests the dual role of opinion leaders.

Firstly there is an informational social influence,

"the influence to accept information obtained by another as evidence about the true state of some aspect of the individuals environment."

There is also normative social influence, which is,

"the influence to conform to the expectations of another person or group."

Trodahl (1967) questions one of the basic statements of the two step flow hypothesis, that...,

"ideas flow from radio and print to the opinion leaders and from them to the less active sections of the population."

Lazerfield, Berelson and Gaudet 1948 p151

Findings from his study did not generally conform to predictions derived from the two step cycle. A more accurate portrayal of the flow of information and influence would be a multi step flow theory, allowing for a much more dynamic interactive process.

"The theory suggests that it is equally important to identify and reach individuals who are the receivers or seekers of information and advice, for these individuals are likely to function eventually as opinion leaders themselves."

Schiffman and Kanuk 1978 p283

The important factor therefore becomes the propensity to engage in word of mouth communication about the product, rather than

whether one is an opinion leader or follower.

Webster (1970) casts doubt on the concept of opinion leaders in the industrial field when he reports that firms do not contact other firms for information and that opinion leaders, if they exist at all, seem to be rare in industrial markets. In a later review of other research studies on communication and the diffusion process, looking at interfirm communication he states,

"the available information provides little support for the existence of informal communication (opinion leaders or word of mouth) in industrial markets."

Webster 1971

Contrary to Webster, Martilla (1971) states,

"The findings of this study suggest that word of mouth communication is an important element in the adoption process within firms. Word of Mouth communication between firms was found to be more situational and that opinion leaders were found to be exposed more frequently and in greater depth to impersonal sources of information than other buying influentials within the firm."

Martilla 1971 p127

Schiffman and Gaccione (1974) in their study of nursing homes, found institutional opinion leaders with many similarities to their consumer counterparts. They were more socially involved, more innovative and more active in seeking information than those low in opinion leadership. Czepiel (1974) used a sociometric study of the industrial adoption process and found both opinion leaders and an informal social system linking firms together.

A number of interdisciplinary studies concerned with opinion leadership and the diffusion of information have concluded that opinion leaders possess a keener level of interest in the product category than opinion receivers. Because of this the opinion leader is likely to be better informed and turned to by others as a source of information. Opinion leaders are supposed to read more about related issues and are more knowledgeable about related new product developments.

Initially the general conclusion was that opinion leaders make greater use of mass media, that they tend to use more impersonal, technically accurate and widespread sources of information, but this has not been supported by later studies. Opinion leaders have instead been found to have a much greater readership of specialist publications devoted to the special product category in which the opinion leader leads, but not necessarily greater exposure to mass media in general. Thus opinion leaders would be expected to perceive themselves as having greater knowledge and experience than the rest of the population.

Opinion leaders are generally perceived as a highly credible source of product information who, because of their presumed objectivity, can reduce the opinion receivers search time and perceived risk. Opinion leaders generally seem to be the same age and social class as opinion receivers, have mobility, a cosmopolitan outlook, self esteem and are gregarious. Thus we would expect our sample to have a positive relationship between

opinion leadership and self esteem.

As opinion leaders have a greater interest in the product class they should also have higher knowledge and possibly experience, and this should result in opinion leaders having higher specific self confidence also.

In the case of new products opinion leaders tend to have more favourable attitudes both towards new products as a concept and new products within their specific areas of influence. Thus it is generally accepted that opinion leaders are more innovative than other individuals (Summers and King 1969). We would therefore expect owners of videos to have a higher level of opinion leadership than non owners.

The relationship of opinion leadership to the decision to rent or buy is less clear. It could be argued that as the opinion leader will be more knowledgeable than his counterparts he will be aware of the higher total cost of renting to purchase, will have more knowledge of the alternatives available and their features, and thus prefer purchase as more likely to satisfy his needs.

Alternatively, his superior knowledge may lead him to decide that at this early stage in the product life cycle, with prices dropping and technical features changing, that rental is the best choice to avoid being stuck with an out of date machine. Thus the opportunity to update with rental may be seen as an advantage as

it allows him to maintain a position at the forefront of technology with little extra cost to himself. It is likely therefore that opinion leadership will be related to the decision to rent or buy, but the influence is unclear.

Certain hypotheses can now be stated:

Hypothesis 13 Video owners will have a higher opinion leadership than non owners.

Hypothesis 14 Video purchasers will differ in opinion leadership from video renters.

Hypothesis 15 Opinion leadership will be positively related to generalised self esteem, and specific self confidence.

Hypothesis 16 Opinion leadership will be positively associated with knowledge, and experience.

### **Risk Perception**

Cox in his introduction to 'Risk Taking and Information Handling in Consumer Behaviour' 1967 makes a simple proposition, namely,

"If we know something about the nature and amount of risk perceived by the consumer, it will help us to understand and predict how and why she acquires and transmits and processes information while solving problems associated with consumer decision making."

He earlier introduces the concept by saying that basic to the concept is the notion of buying goals. A consumer, he believes, is motivated to make a purchase in order to attain some set of



buying goals but is uncertain as to the degree to which the action will in fact satisfy these goals. The uncertainty may result from factors inherent in the product, the brand, the place of purchase or the mode of purchase.

"The amount of risk perceived by the consumer is a function of two general factors- the amount at stake in the purchase decision and the individuals feeling of subjective certainty that she will 'win' or 'lose' all or some of the amount at stake. The amount at stake in a buying situation is determined by the importance of the buying goals, i.e. the value attached to attaining some set of goals, and by the costs (economic, temporal, physical and psychological) involved in attempting to achieve a particular set of buying goals."

Cox and Rich 1964 p33

Bettman (1973) introduces the concept of inherent risk and handled risk.

"Inherent risk is the latent risk a product class holds for a consumer- the innate degree of conflict the product class is able to arouse. Handled risk is the amount of conflict the product class is able to arouse when the buyer chooses a brand from a product class in his usual buying situation."

Bettman 1973 p184

In this Bettman is similar to the distinction in specific self confidence where there is a differentiation made between discriminating in the general product class and choosing a specific brand. Bettman believes there is a strong correlation between the two risk concepts, inherent risk being the highest value which is then reduced by information on the specific problem to create handled risk. Bettman makes the distinction between the two types of risk because he believes they are

frequently confused in the literature making it difficult to compare studies. As examples he cites Cunninghams 1963 work which measures inherent risk in contrast to studies by Cox and Rich (1964) and Spence, Engel and Blackwell (1970) which measure handled risk. In practice, as with specific self confidence, it is unlikely that such a fine distinction will be worth making and will not clarify the situation.

Risk is generally conceptualised as having an uncertainty component and a consequences component. Initially this was broken down into Psycho social uncertainty and consequences and Product uncertainty and consequences. As discussed in Chapter Five, later researchers suggested other dimensions and six dimensions are now seen as being potentially operative, Financial, Performance, Physical, Psychological, Social, and Convenience.

This has lead to two distinct methods of operationalising the concept of risk to appear. This will be discussed further in the next chapter but in general either a simplified measure is used with a single question, or all relevant dimensions are measured on perceptions of both uncertainty and consequences. We shall be using both measures and a further hypothesis regarding their relationship can therefore be suggested, although it will be discussed further later.

Hypothesis 17 The single measure and composite measure of risk will be highly related.

Should the multi dimensional measure show a poor correlation then the two measures must be considered separately. Similarly if the multi dimensional measure relates to ownership then the individual dimensions can be investigated.

#### Risk and Search Behaviour

One of the immediate claims made by Cox (1967) was that risk was related to information acquisition and processing. This was based on the findings of Berlyne (1962), Driscoll and Lanzetta (1964) and Hawkins and Lanzetta (1965) and others who were concerned about the effects of uncertainty on epistemic curiosity. The theory of epistemic curiosity conceives it as a motivational state (a state of high drive or arousal) that activates a quest for knowledge and is relieved by the acquisition of knowledge (Berlyne 1962 p27).

One of the immediate problems was whether the relationship between information acquisition and uncertainty was linear or curvilinear. It was suggested that at high levels of uncertainty the conflict so aroused lead to an inhibition of search (Driscoll and Lanzetta 1964) and therefore a curvilinear relationship.

As uncertainty is a major element in risk this is of obvious relevance. Uncertainty is seen as the opposite of specific self confidence (Cox and Rich 1964 p38) and is thus of interest to the Howard and Sheth theory of search mentioned in Chapter Two. Drawing upon the literature of stimulus ambiguity related to

arousal, which Howard and Sheth (1969 p162) and Copley and Collom (1971) treat as synonymous with risk and search behaviour, they present the following diagram.

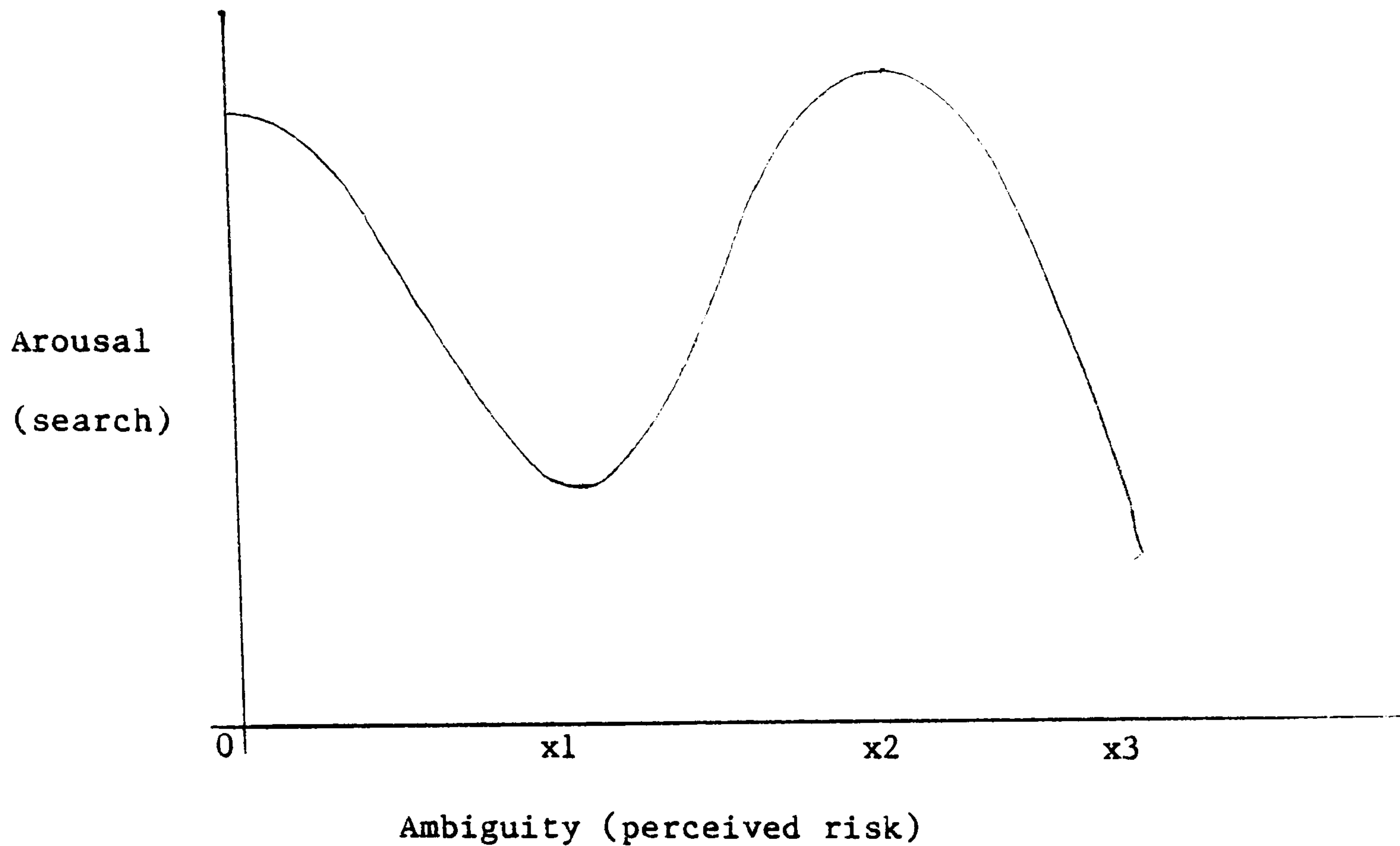


Figure 4.1 Arousal and Ambiguity

Concerning the X1 to X2 segment in the curve in Figure 4.1, the buyer is motivated to obtain more information, therefore reducing the perceived uncertainty, to the left. Howard and Sheth call this "specific problem solving exploration" (p.162).

The X2 to X3 portion of the curve is called "supramaximal inhibition" where the risk is so great the buyer feels unable to process any information in an attempt to reduce the risk. This has been studied by Jacoby, Speller and Kohn Berning (1974a,1974b), Gronhaug (1975) who agree with the curvilinear effect although Russo (1974) and Summers(1974) criticise his

methodology and analysis. Hawkins and Lanzetta (1965) suggest the curvilinear effect is related to importance of purchase, which stresses the importance of measuring the consequences component of perceived risk.

To the left of X1 the perceived risk is so small that the buyer increases his search behaviour due to curiosity and a need to relieve the monotony of continually using the same sources of information or supply. Howard and Sheth refer to this as "diversive exploration", the escape from boredom, where the ambiguity is deficient and where exploration is aimed at stimulation from any source that is sufficiently interesting.

Other researchers have also found a relationship between risk perception and information acquisition (Cunningham 1967, Hisrich, Dornoff and Kernan 1972, Deering and Jacoby 1972, Little and Brown 1970, Sheth and Venkatesan 1968, Newall 1977). Risk has also been shown to be related to shopping habits (Schiffman, Shus and Winer 1976, Spence and Engel 1970, Cox and Rich 1964, Dash, Schiffman and Berenson 1976) and information source usage (Arndt 1967, Bauer 1967)

Brand loyalty as a risk reduction method has also been found (Arndt 1967, Bauer 1967, Cunningham 1967, Sheth and Venkatesan 1968) which is possibly another way, or the explanation for relying on past experience as suggested in our model.

The relationship between Risk styles and personality has been investigated (Schaninger 1976) and this is important where the dominant risk style affects the type of search undertaken by influencing the size of the evoked set, number of alternatives considered etc. Personality variables such as the ability to handle uncertainty (Hughes, Tinic and Naert 1969), the need for certainty and achievement (Wilson 1971), the need for cognitive clarity (Cox 1967, Kanti Prasad 1975), category width (Popielarz 1967, Pettigrew 1956) the use of risk style 1 or risk style 2 (Schiffman 1972, Popelarz 1967, Donnelly and Etzel 1973), open or close mindedness (Peters and Venkatesan 1968, Green 1966) have all been investigated with varying degrees of success.

The relationships are often low, although they improve if restricted to situations of high perceived risk and high specific self confidence.

Generalised self confidence, or self esteem, was expected to be related to risk by Cunningham (1967) but this was not found, although it seemed to be related to persuasion in the same curvilinear way (Barach 1969b). This relationship will be investigated in our research.

The "risky shift" was a finding that individuals increase their risk taking when making decisions in a group situation (Bateson 1966, Stern and Gazda 1975, Woodside 1972, 1974, Woodside and Delozier 1976). However it has been suggested that the risky shift need not be in the direction of increased risk, but may be

to reduce risk or no change. This depends on the initial riskiness of the problem (Johnson and Andrews 1971, Reingen 1973, 1974), a conservative risk shift taking place in initially high risk situations, no change in medium risk, and the positive risky shift in low risk situations.

In the adoption of a new product the consumer will gain favourable or unfavourable attitudes towards the product leading to the decision to adopt or not to adopt. The degree to which a person is persuaded in favour of the product is related to the perceived risk as already stated, and the greater the perceived risk the more information is likely to be needed and the greater likelihood of the purchase decision being delayed. Peters and Venkatesan (1968) have confirmed that the willingness to try new products is related to risk perception, and Shoemaker and Shoaf suggest that perceived risk can be reduced by allowing the consumer to buy a trial quantity smaller than that normally bought.

It will be argued later that the nature of the video recorder, its high price, early stage in market development, advanced technological nature, complex information on attributes, all suggest that the purchase of a video recorder is likely to be seen as a high risk purchase.

It has been suggested when discussing rental and purchase that the smaller initial commitment of renting will be seen as a form

of trial, to be changed to purchase when the consumer is convinced of the benefits of the product (Fletcher and Napier 1983). This would suggest that if the product is seen as high risk, rental would be considered as a means of reducing the consequences component of risk.

Some further hypotheses are suggested,

Hypothesis 18 Purchase of a video recorder will be seen as a high risk purchase.

Hypothesis 19 Owners will perceive a lower risk than non owners.

Hypothesis 20 Purchasers will perceive a lower risk than renters.

Hypothesis 21 Risk perception will be negatively related to specific self confidence.

Hypothesis 22 Risk perception will be negatively related to generalised self confidence.

### **Interpersonal influence**

In chapter two we indicated the importance of family decision making with the possibility of different family members playing different roles during the purchase of a product. This is especially true of a product which is likely to be of benefit to the whole family, such as a video recorder, or a high priced item which will affect the disposable income of the family or the allocation of purchasing priorities. We also discussed how opinion leadership is a two way concept with followers often searching out leaders to acquire their advice, or followers discussing amongst themselves potential or past purchases to reduce cognitive dissonance.



It would therefore be expected that for a product such as a video recorder other people would be involved in the decision. It would also be of interest to know who these people were and the degree of their involvement.

Hypothesis 23 Personal influence may, or may be expected to play an important role in the decision process.

#### Socio-demographic factors related to search

As with most studies of consumer behaviour it is possible to hypothesise that socio-demographic variables may have some influence on the behaviour under study.

##### Age

Katona and Mueller (1954) found that for both consumer durables and for sports shirts less deliberation took place the older the head of the household, while Hempel's study (1969) indicated that as age increased the duration of search, the extent of information seeking, and extent of product examination all decrease. Kiel (1977), Mathewson (1972), Ozanne and Churchill (1971) all found a similar negative correlation between search behaviour and age.

Armstrong (1978) however found that age was positively related to the shrewdness and dedication of the shopper and the amount of presold goods dropped with age, while Peters and Venkatesan

(1973) found no significant findings related to age.

The general conclusion is that the amount of information search decreases with age. This is consistent with the hypothesis that as age increases stored information and experience becomes of increasing importance to the buyer in the decision making process.

#### Education

Katona and Mueller found that the degree of information seeking varied directly with education. Those people with little education, in general, undertook little search.

"...the strata of the population that may have the greatest need for information are the least likely to look for it."

Katona and Mueller p56

Newman and Staelin (1972) also found that people with little education tended to undertake less search. However they indicated the relationship is neither monotonic, nor linear. A curvilinear effect taking place with those in the higher education brackets, in common with those of low education undertaking less search than those of medium education.

Hempel (1969) found that the length of search decreased, while information gathered increased, with level of education. O'Brien (1977), Mathewson (1972), Ozanne and Churchill (1971), Thorelli (1971), and Andreason and Ratchford (1976) all report a positive

relationship between education level and amount of search behaviour.

A strong relationship between level of education and income has often been noted and this could be the explanation for Newman and Staelins finding. For the goods he was considering the higher educated, and therefore higher income, respondents may not have considered them worthy of excessive search. Katona and Mueller have found a curvilinear relationship between income and search.

#### Income

Katona and Mueller bracketed income and education together and found a curvilinear relationship. Norris (1954) found a curvilinear relationship in that the middle cost range houses attracted the most search, low and high cost houses the least. Andreason and Ratchford (1976) confirmed the existence of a curvilinear relationship and Thorelli (1971), Claxton Fry and Portis (1974), Mathewson (1972), Alderson and Sessions (1962) all found that higher income people used a greater range of information sources and Keiser and Kuehl (1971) found exposure to mass media and utilisation of interpersonal sources was related to income.

Riter (1966/7) found no significant relationship between the number of stores shopped for a colour tv and income of the shopper and Farley (1964) found no relationship between income and search.

## Occupation and Status

Katona and Mueller indicate a strong relationship is to be found between occupation, income and education and thus a similar relationship with search is found as in the previous two concepts, income and education. Occupation is related to status and Newman and Staelin (1972) show the higher the status of occupation the more information search occurs. In the industrial field no relationship was found (Luffmann 1974), unless an attempt to improve status was in progress in which case the purchasing unit emphasised the market research aspect of the job rather than the mechanical aspects of receiving and placing orders.

## Social Class

Keiser and Kuehl (1971) investigated both income and social class and found exposure to and utilisation of mass media and interpersonal sources was not related to social class, but social class and the amount of store visits was positively related in the upper social classes. Bruce and Dommermuth (1968) indicated that little search is undertaken by the lower social classes.

Rich and Janis (1966), Carmen (1965), Andreason and Ratchford (1976) found there were no significant variations in information search except that Rich and Janis found more frequent shopping behaviour in the upper social classes.

It is known from commercial data that video recorder owners vary from the general population by social class and age. Initially

the higher social classes (AB) were more likely to be video owners, but this changed and the C1/C2 became major users as a form of 'trickle down' took place as the product progresses through its life cycle. Similarly it is known that rental appeals to the C2DE social classes rather than than ABC1 individuals. Age is also relevant with video owners generally tending to be younger with those over 50 generally being of little interest to video recorder manufacturers.

#### Conclusion to Chapter

The variables we have discussed in this chapter have all been suggested as being related to, and in some degree explaining, search behaviour. While it would be possible to create a quantifiable measure of search, and carry out a multiple regression of these variables upon it, this is not the intention here.

If these variables influence the decision to rent or buy a video recorder then it is possible that the sample chosen will not be representative of the general population in their search behaviour and decision making. This would suggest the need to investigate any differences which exist between video owners and non owners. Similarly, if these variables can be shown to discriminate between renters and purchasers of video recorders then care must be taken in any aggregate analysis of video recorder owners.

## CHAPTER FIVE

### RESEARCH AIMS AND METHODOLOGY

In the previous chapters we have reviewed various models of buyer behaviour to show the common approach to understanding the decision process. We discussed the nature of rationality and concluded that a satisficing model of consumer behaviour, based upon bounded rationality and simplifying strategies was the most realistic approach to understanding consumer problem solving. ✓

This lead us to state the assumptions which are the basis of satisficing models of behaviour and to present a diagrammatic model which attempted to show how a satisficing decision process might work. We then proceeded to use this as a framework to consider the steps of Problem Recognition, Search and Evaluation, showing the role of information and search rules in each instance.

From this we developed our research questions which are listed below.

A consideration of Problem Recognition lead us to ask,

1) What is the nature of Problem Recognition?

In particular we wished to understand its relationship to awareness and information acquisition, its relationship to

motivation and perceived needs, what precipitated or delayed Problem Recognition and the nature of any deliberation at this stage.

When considering Problem Categorisation we asked,

2) Can we identify the elements which guide an individual in categorising problems?

This would allow us to predict the nature of the decision process and the amount and type of search behaviour.

We went on to discuss the nature of search behaviour and its role in the decision process. The passive nature of much information acquisition lead us to ask,

3) What is the role of incidental and experiential learning in the decision process?

4) What is the nature and length of premarket and market search?

Search behaviour results in the use of many differing information sources during the decision and after considering the relevant research we asked,

5) What is the preference for, and use of, information sources during the decision process.

This will allow us to understand the importance of personal and impersonal sources, the use of mass media, point of sale etc., which may enable the marketer to develop a more efficient communication strategy to reach individuals.

We moved on to consider the sequential nature of decision making, which we represented as a three step process of moving from Awareness Set, Consideration Set to Choice Set. The next research questions are, therefore,

6) Does decision making follow the suggested three step process of Awareness set, Consideration Set and Choice Set?

7) What is the size of the relevant sets created?

The creation of the evoked sets should be accompanied by the use of simplifying strategies to reduce the cognitive and behavioural effort required. We therefore asked,

8) Can we identify the application of decision rules during the decision process?

While products move through the decision process they will be evaluated as to their suitability against a set of choice criteria. We therefore asked,

9) What are the criteria used in the decision process, and do these criteria fit the product, company and market classification suggested?

10) What is the relative importance of the criteria used?

The next chapter discussed the effect that mode of acquisition might have on the decision process which lead us to ask,



11) How much does the mode of acquisition, rental or purchase, effect the decision process and search behaviour?

The decision process will be influenced by many factors which can be classified as Environmental, Situational and Individual.

We reviewed those likely to be operative in our study and developed a set of hypotheses derived from our review.

We wished to ensure that the nature of the consumption problem, acquiring a video recorder, had not introduced bias. A set of hypotheses were developed which tested for difference between individuals with video recorders and those without. Similarly we tested whether mode of acquisition differentiated the sample of individuals on the variables of interest. Finally, various interactions were tested.

The hypotheses are listed below.

Hypothesis 1. Cognitive beliefs about video recorder ownership will differ between video owners and non owners.

Hypothesis 2. Video owners will have more favourable beliefs about video recorders than non video owners.

Hypothesis 3. Video owners will differ from non video owners on their perception of the sort of person who owns a video recorder.

Hypothesis 4. Video owners will have higher knowledge than non video owners.

Hypothesis 5. Experience will be low but video owners will have higher experience than non video owners.

Hypothesis 6. Experience and knowledge will be positively related.

Hypothesis 7. Generalised self confidence will be related to video ownership with video owners having higher Generalised Self Confidence than non owners.

Hypothesis 8. Specific self confidence will be related to video ownership with video owners having higher Specific Self Confidence than non owners.

Hypothesis 9. Generalised Self Confidence will be lower for video renters than video purchasers.

Hypothesis 10. Specific Self Confidence will be lower for video renters than for purchasers.

Hypothesis 11. Generalised and Specific Self Confidence will be positively related.

Hypothesis 12. Specific Self Confidence will be related to Knowledge and experience.

Hypothesis 13. Video owners will have higher Opinion Leadership than non owners.

Hypothesis 14. Video purchasers will differ from video renters in their opinion leadership.

Hypothesis 15. Opinion Leadership will be positively related to Generalised Self Confidence and 15b) Specific Self Confidence.

Hypothesis 16. Opinion Leadership will be Positively related with Knowledge and 16b) Experience.

Hypothesis 17. The single measure and composite measure of risk will have a high positive relationship.

Hypothesis 18. Purchase of a video recorder will be seen as a

high risk purchase by owners and non owners.

Hypothesis 19. Video owners will perceive a lower risk than non owners.

Hypothesis 20. Video purchasers will perceive a lower risk than renters.

Hypothesis 21. Risk perception will be negatively related to Specific Self Confidence

Hypothesis 22 Risk perception will be negatively related to Generalised Self Confidence

Hypothesis 23 Risk perception will be negatively related to Knowledge

Hypothesis 24 Risk perception will be negatively related to Experience.

Hypothesis 25. Personal Influence will play an important role in the decision process.

For our purpose 'video owners' will refer to those individuals who have a video recorder in the house, regardless of mode of acquisition. Video owners are then differentiated into 'video purchasers', those who bought the video, and 'video renters', those who rent the video.

The research can be seen to fall into two main areas. Firstly the research aimed specifically at investigating the process of decision making. Secondly, the analysis of independent variables which might influence this decision process.

Before going on to discuss the methodology we selected to

investigate the research questions and hypotheses we will explain the reason for the choosing the acquisition of a video recorder as the consumption problem of interest.

As we discussed in Chapter 3 the decision process is affected by the nature of the product being purchased. This has often been a defect of earlier studies in that they were so specific in their findings that little worthwhile comparison could be made between studies to help create an overview of the problem.

#### Product Choice

It was initially intended to investigate a number of purchase decisions, classified into Howard's EPS to RRB continuum. However this created various problems.

Firstly, as the purchase of a specific product might be perceived as Extended Problem Solving by one person, and Routinised Response behaviour by another, a wide variety of products are likely to be included in the three categories.

Secondly, it was recognised that this would necessitate a much larger sample of respondents than the researcher had resources to contact.

It was therefore decided to limit the choice of consumption problem to one requiring extended or limited search rather than a routinised problem. This was due to the widely differing research methodology required to investigate internal search, compared to external search behaviour, and the greater relevance

to industry of understanding external search behaviour as this was open to influence by them in communication campaigns.

While the perception of whether extended or limited search is required will vary by individuals, it was decided to attempt to limit the amount of variation by choosing a product purchase which had characteristics likely to ensure limited problem solving. Such a product is likely to be in a field where products and attributes are frequently changing, the cost of the product is high, the future uncertain, with little experience to draw upon and where the product life is sufficient to create commitment. One product which seemed to satisfy these criteria is video cassette recorders.

It was therefore decided to study the decision making process during the decision to acquire a video recorder. This decision however in itself raised the question "How representative of the general population are video recorder owners?"

It is known from commercial data that video owners differ from the general population on both social class and age, which have been shown to be related to decision making. It was therefore decided to investigate how far video people differed from non video people on other variables previously shown to be related to search behaviour and decision making. This would give guidance as to how representative our sample was in their reports on decision making.

A further advantage of video recorders as the item under study is the choice which can be made between purchase and rental. As this is a popular method of acquisition it was also possible to investigate any differences between renters and buyers during the process of decision making.

### Methodology

The studies previously reviewed have used many different research methods and techniques. As we discussed at the time the nature of the decision process is such that it is highly likely that respondents would be unaware of their thoughts, attitudes and behaviour during the decision which lead to the actual choice. We also pointed out the inadequacies of many of the measures of search previously employed, which often attempted to use structured questionnaires and rating scales to quantify the nature and amount of search, or set up artificial experiments to study the amount of alternatives considered and criteria used.

A pilot study of a questionnaire, early in the present study, convinced the researcher that a structured interview was unsatisfactory. While such a questionnaire gave results which were capable of statistical manipulation and interpretation it was felt that a complex, subjective area was being studied using a simplistic, objective tool. The structured questionnaire encouraged respondents to rationalise their answers, it forced them to consider areas which they may not have otherwise considered, and generally forced the preconceptions of the

researcher onto the respondent. It was therefore felt a more qualitative approach was needed to study this area.

This was not felt to be the case when investigating the hypothesis relating to the independent variables. During the pilot respondents had little problem in responding to the structured questionnaire in this area. It was therefore decided that a structured questionnaire with rating scales and multiple choice questions was suitable. This is considered further in the section concerned with operationalising concepts.

The need to study video owners and non video owners, as well as purchasers and renters resulted in the decision to use a two stage study. The first stage would be a structured questionnaire which would serve two purposes. Firstly it would measure the independent variables and allow us to differentiate between the groups of interest. Secondly it would act as a screening questionnaire allowing us to identify individuals who had obtained a video recorder within the last twelve months. (It was felt that a time period longer than this would result in poor recall and begin to bias the results.)

The second stage of the study would take a qualitative approach and allow a much deeper investigation into the decision process itself.

The actual realities of research modified this approach. The researcher was unable to begin the second stage research within the planned time period and the list of video recorder owners

became redundant as twelve months had passed since their collection. This necessitated the selection of a second sample when the second stage study began. One of the disadvantages of this was that no comparison of individuals search behaviour and their relevant independent variables was possible.

While considering the research questions relating to the second stage study it was noted that one of the research areas was suitable for investigation by both qualitative and an interesting quantitative technique.

The research questions relating to the relative importance of criteria used in the decision process and whether these differed between renters and purchasers would be covered during the general qualitative research. They could also be investigated using a technique called Conjoint Analysis. This technique had the advantage of being simple in its application and capable of providing very useful insights into how individuals traded off criteria or attributes in making their final decision. It would thus provide an interesting comparison with the results gained by the qualitative research.

The research thus had three parts, the results of which are reported in Chapters 6, 7, and 8. The first stage investigated the hypotheses listed using a structured questionnaire. The second stage investigated the research questions using a qualitative approach. At the end of the qualitative interview the conjoint analysis experiment was conducted. Each of these stages is now discussed in more depth.



## Stage One Methodology

Two major decisions had to be made regarding the first stage of the research. Firstly, how would the concepts be operationalised, and secondly how would the population be selected and contacted.

The methodology used by most other researchers in the field was to operationalise the concepts in a way which allowed their incorporation into a structured questionnaire which could thus be used in either a personal interviewing situation or by self completion. With the resource and time constraints of the researcher it was decided to use scales previously tested by other researchers wherever possible and a self completion questionnaire. This allowed for a larger sample than otherwise and removed interviewer bias.

The next section discusses how the concepts were operationalised and is followed by a discussion of the sampling method used.

## **Operationalisation of Concepts**

This section will discuss the concepts investigated in the stage one study and the questions used.

Each questionnaire was hand delivered with a covering letter which introduced the purpose of the research, requested their cooperation and promised confidentiality. Approximately four days later the interviewer returned and collected the completed questionnaire. (This method of questionnaire administration has worked well in other studies. Storer and Stone 1974, Dunning and Cahalan 1976, Lovelock et al 1976, Gentry and Jones 1975)

The questionnaire started with a request for respondents cooperation, and then simple questions on colour television and video recorder ownership. These four questions allowed the respondents to be classified as owners or renters of colour television, owners or renters of VCR's, and length of ownership and also future intentions towards VCR ownership. (See Appendix 1)

## **Beliefs**

As discussed, it was felt that as evaluative criteria are related to attitudes held about an object or act and are also based upon beliefs about that object or act then an understanding of the basic belief structure would help in explaining behaviour. Questions Five and Six were both open-ended attempts to investigate this.

Q5. "What sort of things come into your mind when you think about having a video recorder?"

and Q6. "What sort of person do you think has a video recorder?"

The responses to these questions were coded into positive/negative statements, and the "person" comments were coded into class, personality and lifestyle statements. The statements themselves were then coded individually.

### **Specific Self Confidence, Experience, Knowledge**

These three concepts were measured on 5 point scales in response to three single questions. The questions were those in standard use in similar studies, i.e.

Q7a. "In general how confident are you about yourself as a judge of video recorders?"

Q7b. "How much experience have you had using this sort of product?"

Q7c. "How much knowledge or information do you feel you have about video recorders?"

### **Risk Perception**

There are two research approaches to operationalising risk perception in this type of study. A single overall measure is used with a five point scale, i.e.

"On the whole, considering all sorts of factors combined, about how risky would you say it was to buy a video recorder?"

A more sophisticated method is to measure each of the two components of risk, i.e. the probability/uncertainty component and a consequence/danger/importance component.

Some studies have only focused on the uncertainty component (Sheth and Ventkatesan 1968, Spence et al 1970) which may seem strange considering Cunningham's (1967) and Horton's (1976) view that the consequences or danger component is the more important aspect of perceived risk. However, as Cox (1967) noted, reducing uncertainty is a far more typical strategy for dealing with risk than minimising consequences, and because of the strong relationship between the two components (Bettman 1975) these studies may still be accurate measures of risk.

#### Multidimensional measures of risk

As the concept gained the attention of researchers considerable evidence, was uncovered that risk should be treated multidimensionally and with regard to the specific product class under study (Ross 1974, Zigmund and Scott 1973).

Jacoby and Kaplan (1972,1974) Roselius (1971) Horton (1976) Beardon and Mason (1978) Jackson (1977) Kumpf (1978) Peter and Tarpley (1975) have identified and used various facets of risk. These can be stated as: Financial, Performance, Physical, Psychological, Social and Convenience (time).

Kumpf (1978) factor analysed these six facets and found three

dimensions: Performance, Psycho/Social, and Convenience/Physical, while Peter and Tarpley (1975) identified an Expected Performance dimension and a Psycho/social dimension using a similar technique.

The general conclusion is that both the dimensionality and nature of risk components vary by products as the evaluative criteria change (Zikmund and Scott p14). A single overall question will be unable to gain insights into why a product is seen as risky or to give guidance as to communication strategies to alleviate risk perception.

The multidimension approach can be represented by the equation:

$$OPR = f (PL_{ij} \times IL_{ij})$$

when OPR = overall perceived risk

PL<sub>ij</sub> = probability of loss i from purchase of product j

IL<sub>ij</sub> = importance of loss i from purchase of product j

n = risk facets

This model depicts individual perceived risk as both a multiplicative function of probability of loss and importance of loss, and as an additive model across the various facets. This follows the work of researchers such as Peter and Tarpley 1975, Horton 1976, and Beardon and Mason 1978.

In this study it was decided to use both the single measure of risk as described earlier and also the multidimensional measure.

Piloting and previous research by the author had identified 5 dimensions of potential relevance. These were: Financial, Psychological, Social, Performance and Physical.

The layout of the multidimensional question (Q8) can be seen in the appendix.

### Opinion Leadership

The three main methods of measuring opinion leadership are the self designated method, the sociometric method and the key informant method. These are reviewed elsewhere (Shiffman and Kanuk 1978 p267-272, Booker and Houston 1976) and will not be dealt with at this time.

The self designated method has been most frequently used in consumer research, either asking a single global question or a multidimensional approach similar to Rogers (1962) original scale. Examples are Fenton and Leggatt 1971, Corey 1971, Baumgarten 1975, Summers 1970.

Due to the lack of research into the reliability and validity of the differing methods this study followed other approaches and used a multi dimensional approach. The format and wording of Question 19 is similar to those reported by J. Summers and discussed by Schiffman and Kanuk (1983) and consists of five questions. Each question can be scored 1, 2, or 3 giving a total possible score of 15 and a minimum score of 5.

### **Interpersonal Influence**

It was considered worthwhile to try to ascertain the degree of involvement of others in collecting information, helping to judge the products, or helping in the decision to rent or to buy. A single question was therefore asked:

Q11. "If you were to consider video, or when you did consider video, would/were any other people involved in the decision?"

If the respondent answered yes, a further question asked them to tick who they were and the degree of involvement. Previous piloting had ascertained that five potential influences existed: wife/husband, child, relative, or friend. It was therefore possible both to analyse this individually or summate it to a total index of interpersonal involvement.

### **Generalised Self Confidence**

Generalised self confidence, or Self Esteem has been operationalised in many ways. Occasionally only one or two questions are used as a measure (Lampert and Rosenberg 1975, Gronhaug 1975, Dash, Schiffman and Berelson 1976) but the validity of these findings is in doubt due to the complexity of the concept.

Robinson and Shaver (1973) review 29 measures of self esteem but in the marketing literature the Janis and Field scale or a shortened version of it, is used in the majority of cases. (The Coopersmith Self Esteem Inventory is occasionally used but offers

no major advantages). Robinson and Shaver report on various research which suggests that the Janis and Field scale has high reliability and to have convergent, discriminant and predictive validity.

In this research the full 20 item scale was used with reversed scaling to reduce response set. This allowed a minimum score of 20 and a maximum score of 120 with a six point scale scored 1 to 6.

#### DEMOGRAPHIC DETAILS

Education, age, sex were measured in the usual way with simple multiple choice selections. Social class requested the occupation or job title of the principal wage earner in the household which was then graded according to a classified list of occupations obtained from a commercial research organisation. In cases of doubt the education level attained and area were used to give further guidance.

#### Sample

The problem facing the researcher was first to identify the relevant population of video owners, and then to select and contact suitable respondents. The research instrument had been designed in such a way that a personal interview was felt to be unnecessary and self completion was possible.



A major problem in research with a minority population such as VCR households (15% penetration Aug 1982) is in finding relevant respondents. A request for assistance to 20 UK suppliers was unsuccessful, necessitating that the sample be drawn from the general population.

A random mail survey was rejected on the grounds of cost. The GPO Home Delivery Service was also rejected because of its inability to be sufficiently selective in areas, and cost. A decision was therefore made to select a sample from the population of Glasgow. The social class and age characteristics for the general population were taken from Jicnar and the figures for video households were taken from commercial market research data obtained during the previous approach to companies.

The market research was often contradictory or used different definitions of VCR households. Gallup, for instance, ask about video ownership, thus excluding the large proportion of renters from their breakdowns, (renters were considered to be approximately 70% of households with a higher proportion of renters in the lower social classes according to one organisation, 55% according to another with the highest proportion of renters in the higher social classes).

One approach would have been to divide Glasgow into sections and randomly select from within these areas. While this would have created a sample representative of Glasgow this was not felt to be necessary bearing in mind the time and cost constraints.

It was therefore decided to use a form of quota sample. Four areas of Glasgow were chosen which varied in their social class characteristics, and nine sampling points chosen. The four areas, with their approximate social class gradings, were Milngavie (ABC1), Broomhill (ABC1), Knightswood (C1C2), Dennistoun (C2DE).

Within these areas questionnaires were hand delivered to approximately 100 houses from each sampling point until the quotas had been reached.

This resulted in the following sample. The actual proportions of respondents on social class and age are compared to the national characteristics and commercial data on video households obtained from the confidential survey by ITT consumer products (UK) Ltd.

Table 5.1

Socio economic group of sample

	non vid. pop	non vid. sample	pop. VCR	sample
AB	17	21	21	21
C1	23	23	35	34
C2	32	28	31	30
DE	29	29	13	16
	----- 100%	----- 100%	----- 100%	----- 100%

Source of video figures: ITT Consumer Products (UK) Ltd.

Source of population figures: Jicnars

Table 5.2 Age distribution of sample

	non video pop	sample		video pop	sample
16-24	20	12	16-24		13
25-34	18	21	25-34	47	25
35-44	15	20	35-44	25	20
45-55	14	17	45-55	19	34
55-64	14	16	55-65+	8.6	7
65+	19	14			

It is possible the difference in video households on age may be due to the nature of the question and methodology employed. This research was filled in by either the head of the household or the person responsible for the video acquisition decision (if different) whereas Gallup, for instance, asked if a video was in the home, thus younger members of a family might answer 'yes' confusing classification.

Similarly, the 16-24 age group is under represented, presumably because of parents filling in the questionnaire as head of the household, and the other groupings are therefore proportionately larger. The 65+ age group is under represented, reflecting the difficulty of getting reasonable response rates from this group, and the higher than average inadequate completion resulting in rejection of the questionnaire.

It was also noted that a sex bias existed with 63% of respondents

being male and 37% female. This might have caused a misinterpretation of the data if sex was related to the variable under study and therefore a Mann Whitney test was run on all independent variables to see if this was the case.

No significant differences existed for any of the variables except self esteem. For this variable females were found to have lower generalised self confidence (significant at 0.0014).

#### Reflections on methodology

Minor problems were found in interpreting and coding the data. Respondents often missed the question on make of TV or video, possibly due to the questionnaire layout rather than deliberate refusal to answer. The open ended questions gave limited responses due to the lack of probing and would not be recommended for a self completion study unless personal interviews were impossible. The multi measure risk question gave obvious problems to respondents with some people only ticking one side, or missing items. As this is often used in a self completion manner it is surprising that other researchers have not mentioned this problem. The opinion leadership question sometimes led to the response that as they never talked about video, ever, the questions were irrelevant. This might only be evidence of lack of opinion leadership however. The question on involvement of others did not work as intended, in that respondents often left blank one or more of the categories when they should have ticked

(1) for "not involved at all". It is also possible that this was a simplistic way of gathering information about complex interpersonal interactions. It was possible to check this with the personal depth interviews.

The Janis and Field scale of Self Esteem did not cause the problems expected. Respondents seemed to have no difficulty responding to the many personal statements.

#### Second stage methodology and sample selection

This section deals with the data collection on the decision making process itself.

The conscious aspects of information processing research tends to follow the Newall and Simon (1972) approach of a decision maker who understands his limitations and adjusts his decision making strategies to minimise ill effects on decision quality, as reviewed earlier in Chapter 3.

The problems of gathering verbal reports on mental processes has been identified by Nisbett and Wilson (1977) who point out that there is often no conscious awareness of perceptual and memorial processes and that,

"it is the result of thinking, not the process of thinking that appears spontaneously in consciousness".

This can lead to inaccuracies of reporting if respondents are unaware of the existence of critical stimuli or inferential processes, and respondents may base their reports on implicit, a priori theories about the causal connection between stimulus and response. A major area of cognitive psychology is now concerned with the impact of memory and attentional factors on unconscious and/or involuntary aspects of information processing and this area is reviewed by Lynch and Srull (1982 ).

Previous research tends to use quantifiable measures of information search and processing such as self reported rating scales, or multiple choice self completion questionnaires.

Various measures of search have been reported which include:

- 1) number of stores visited,
- 2) number of shopping trips made prior to purchase,
- 3) time spent at shopping centre or in the decision process,
- 4) number of brands considered, or in the industrial field, number of bids obtained,
- 5) number of sources of information used,
- 6) extent of information search on product characteristics and criteria.

As discussed in Chapter 3, to reflect more fully the complexity of search several researchers constructed more comprehensive measures. These measures combined some or all of the previous dimensions into an index.

While it is sometimes acceptable to follow the simplistic practice of allowing the respondent to choose from an extensive list of criteria, sources or alternatives, it has been shown that the 'span of judgement' of people is normally limited to seven (Campbell 1973, Miller 1956, Prasad 1975). Therefore only some criteria will be useful as predictors of behaviour (Alpert 1971, Fishbein 1975, Jacoby and Szybillo 1977).

Also the use of an index to measure search behaviour may either increase the accuracy of the measure, or the sources of bias and error may combine to accentuate the measures shortcomings.

Similarly, any cross sectional measure of search will be unable to pick up the changing importance of criteria and information sources which we predicted would happen with sequential satisficing decision making.

In any index the problem arises of how to combine the elements. Claxton, Fry and Portis have 18 questions to measure 5 composite dimensions, which are then combined into one measure but as dimensions might be complementary or exclusive, this often results in loss of some of the richness of the constituent parts. Hempel (1966) has 12 questions on 3 major dimensions. The usual

method is simply to use an additive model but occasionally elements are multiplied, such as with alternatives and criteria. A number of researchers have attempted to incorporate an intensity of effort measure by weighting certain of the dimensions (Mochis 1976a, 1977b, Braden 1973, Newman and Staelin 1972).

Experimentation to investigate the specific dimension of use of information using a data matrix has been heavily used by Jacoby (1977) but while giving useful insights the methodology has been criticised as unrealistic and a recent paper showed the statistical results to be invalid. (Malhotra and Lagakos 1982, Malhotra 1984 )

These measures therefore tend to suffer from various deficiencies. If we are interested in the process of decision making, the way evoked sets are formed, the way criteria are played off against each other, the changing use of information sources etc. then any simple rating of scales for the purpose of quantification is unsatisfactory.

Other studies have also advised caution in accepting results of reported search behaviour too uncritically. Newman and Lockman (1975) reported on research which compared survey-based and observation-based measures of prepurchase information seeking for buyers of womens shoes. The study found serious under-reporting of instore search and that there was a near absence of correlation between the survey and observational data. They



concluded that one or perhaps both types of measurement were inadequate in themselves and,

"as a consequence much of our knowledge about the amount of information consumers seek before buying may be tenuous at best."

Taylor investigated information source usage by industrial managers and found that in a simulated decision observed preferences for information differed quite markedly from their stated preferences given earlier, as rated on a five point scale.

These considerations were felt to be justified following pilot interviews using a structured questionnaire schedule. Respondents showed unease in answering direct questions on the decision process, and more meaningful results were obtained when the respondents were allowed to express themselves in their own words. This lead the researcher to consider the use of qualitative rather than quantitative techniques of data collection.

#### Qualitative or Quantitative

While many researchers use the words 'qualitative' and 'quantitative' to describe what they consider to be radically different, and rival, kinds of research there is some lack of agreement as to what qualitative research actually is.

"Some define it in terms of sample size, some by reference to the method of data collection; others refer to the exploratory mode of approach" (A.J. Wicken 1977).

Wicken compares the two approaches and argues that they have many areas of similarity and that qualitative research can, in some situations, be quantified and that they are not two clearly distinguishable classes of research techniques. The value of the contrast he believes lies in drawing attention to the importance of only drawing conclusions from data that can be validly derived.

The Market Research Society recently formed a sub committee to discuss the nature of qualitative research and they suggested in their discussion document (Vinehall 1977) that what makes qualitative research a specialist field of practice is the kind of data that it is primarily concerned with and the method of data collection it employs.

"The kind of data with which it is primarily concerned may be described as the thoughts, feelings and attitudes which influence consumer behaviour and response, but which the consumer may be relatively unaware of, or unable to articulate ... and that the conventional forms of data gathering by means of a formal questionnaire will have difficulty in eliciting".

Cooper and Braithwaite (1977) argue that while the history of qualitative research explains some of the reservations still expressed about it, the situation nowadays is much different with a general improvement in training, methodology and analysis.

They believe qualitative and quantitative research are complementary with an area of overlap, as shown in figure

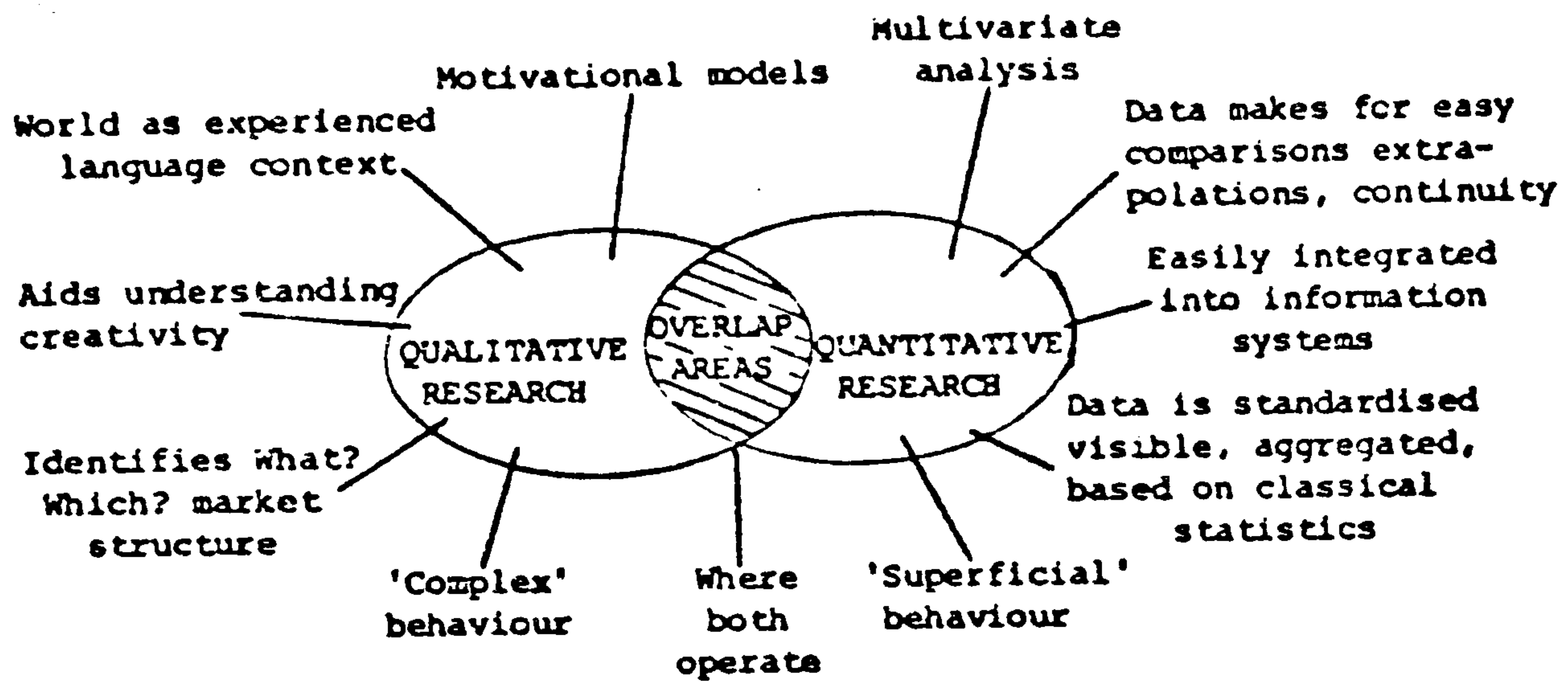


Figure 5.1. Relations between qualitative and quantitative research (Cooper and Braithwaite 1977)

They believe that quantitative research has focused on the ease of comparison from numerical data, its standardisation and the reassurance of classical survey statistics, while accepting the superficial nature of analysis.

Qualitative data has the advantage that it lends itself more readily to qualitative analysis:- the searching out of meanings, causes, relationships and how to apply them to the real world. They argue that there is a shift towards qualitative research because of the disillusionment with computer technology and statistical models which have not lived up to their promise and

that large scale surveys have been wasteful, uneconomic, complex and remote from the real world.

Others have criticised the over emphasis on quantitative research and analysis with suggestions that,

"a blind belief in computer programmes has led to some mindless research and senseless analysis... with a temptation to substitute immediate empirical analysis for more analytical thought". (Bellenger et al 1976)

Nicosia and Rosenberg (1972, reported in Bellenger p4) have expressed concern over attempts to quantify unnecessarily,

"We are also aware that the blind research for quantifiable regularities in society can lead to ignorance of those aspects of man - the most important ones - that are intrinsically nonquantitative".

When to use quantitative research

Quantitative and qualitative techniques are both useful research tools, the problem is in ensuring that the correct tool is used for the right job. Jackie Dickens of Research Bureau Ltd. (1977) has stated that often critics of qualitative research are criticising what it is used for rather than what it is. She gives examples of when she believes it is appropriate to use qualitative research which include the following.

\* To define the parameters of the market, i.e. to investigate how the consumer "sees" the market, the way the products are grouped and how they are seen in relation to others.

\* To understand the nature of the decision making process. Here she believes the advantages of qualitative work is obvious as the respondent can describe in their own words the circumstances under which the purchase has been made, factors which have been thought to influence the decision and the sequential order of events. She believes this to be especially the case with consumer durables.

\* To elicit dimensions which discriminate between brands, and to understand the influence of these factors in creating attitudes and motivating purchase. In particular emotive aspects of brand image can be uncovered.

\* To understand aspirations, attitudes and needs, to investigate how the product is perceived and which attitudinal areas and which consumer needs underly consumer perceptions of the product field in question.

The R & D subcommittee on qualitative research (1979) also specifically suggests that individual qualitative interviews are suitable,

\* "where highly detailed (step by step) understanding of complicated behaviour or decision-making patterns ... are required".

This agrees with Peter Sampson of NOP Ltd (1967) who also states when qualitative research should be used and includes the,

\* Identification of relevant behavioural patterns, attitudes, motivations, etc.

\* The relevance and categorisation of these factors.

When considering the research questions discussed in Chapter 3 and some of the areas discussed in Chapter 4 it becomes clear that a qualitative approach is likely to be more successful.

Sampson however points out the confusion which has arisen in describing different types of qualitative research. He suggests a classification of techniques based on the degree of structure used in the interview and the degree of depth required. The amount of structure and intensity are relative terms and need to vary according to circumstances and the objectives of the research. He suggests a classification of:

- a) depth or clinical interview
- b) non-directive interview
- c) focused or semi-structured interview
- d) group discussion

#### **Types of interview**

We shall now discuss his classification to consider their suitability in this instance.

### Depth interviewing

This form of interviewing is aimed specifically at uncovering unconscious as well as other types of material relating especially to personality and motivation. The technique initially came from clinical psychology as a diagnostic tool in the fields of psychiatry and psychopathology where information was collected over a long series of interviews by a highly skilled interviewer. This form of research, often based heavily on Freud was popularised by Dichter and his followers in the 1960's but has since lost favour as people questioned the findings and the need for such deep understanding. The history and mechanics of motivational research is reviewed by Mostyn (1977) but depth interviewing nowadays tends to refer to non-directive or unstructured interviews.

### Non-directive interviewing

The non-directive or unstructured interview is aimed at avoiding the biasing of responses by the interviewer. William Foote Whyte, (1960) when discussing non-directive interviewing states,

"Whatever its merits for therapy, a genuinely non-directive interviewing approach is simply not appropriate for research. Far from putting respondents at their ease, it actually seems to stir anxieties."

The object of the non directive interview is to get people to talk as freely as possible, without interruption. As Paul Berent (1962) states,

"The function of the interviewer is to be an interested and sympathetic listener, he/she never interrupts and intervenes only to keep her informant talking...the development of the interview depending almost entirely on the informant."

The use of a psychologist is not necessary but special training and skills are required. While, in theory, depth interviews do not include questions, in practice respondents are guided over key areas and sometimes stimulus products or packs are introduced. The interviewers skill in responding to statements or questions may strongly effect the conduct of the interview. A raised eyebrow, the degree of encouragement, even the amount of head nodding and "uh-hmms" have been shown to influence the length as well as the emotional and personal quality of the answers. (Mostyn 1979)

If the degree of guidance becomes "directive" then the interview would best be described under the next category, "focused" or "semi-structured".



## Focused Interviews

The classic article on focused interviewing was written nearly 40 years ago by the famous sociologist Robert K Merton (1946). In it he argues that a focused interview is differentiated from other types of interview by four characteristics.

- 1) Persons interviewed are known to have been involved in a particular concrete situation or have had a specific experience.
- 2) The situation or experience has been previously analysed and a set of hypotheses created.
- 3) On the basis of the above analysis an interview guide has been created setting forth the major areas of interest and the pertinence of the data to be collected.
- 4) The interview itself focuses on the subjective experiences of the respondent and allows for unanticipated responses.

It has been suggested by Young (1966) cited by Sampson that focused interviews are a half way measure between a standard structured questionnaire, with its standardised questions, and the non-directive or clinical interview which are unstructured and non-standardised.

Although the whole situation is carefully structured and the major areas of the enquiry mapped out, the respondent is given considerable freedom to express his definition of the situation. The main function of the interviewer is to 'focus' attention upon

a given experience and the subsequent effects.

### Group Discussion

The group discussion is a form of focused interview where about 8 people are interviewed collectively. While the objectives are similar between the two techniques groups are usually used when less detailed knowledge is required, when non-emotive products are to be discussed and spontaneous ideas and comments are required. As such it is often used in a more exploratory way than focused interviews, although this need not be the case. Indeed, Sampson suggests that group discussions are a good preface to a series of individual interviews because of the breadth of coverage which will allow the structure of the focused interview to be decided upon.

In this research exploratory and empirical research has built up a sufficient theoretical background so that specific hypotheses can be suggested. The persons to be interviewed have all been involved in the the particular concrete situation of buying or renting a video recorder and it is possible to create an interview guide to the areas of interest based on the theory discussed in Chapter 3 and 4.

The nature of the research in this case would therefore suggest that a focused interview would be the most suitable methodology.

## Validity and Sampling Error

Having decided to use qualitative research we still have to consider its validity in relationship to other forms of research.

A major criticism of qualitative research has been that it lacks generalisability, it cannot be replicated and is purely subjective in interpretations which are imposed on the data by the researcher or interviewer. Critics therefore relegate it to a purely minor role in exploratory research, suggesting hypotheses for later verification. Despite these criticisms of validity, reliability, interviewer bias etc, qualitative research is now being used well beyond its traditional exploratory role and is gaining a new 'scientific respectability'. (May 1978)

One of the many reasons for its widespread use in industry (Goodyear 1977) is the usefulness of the results to management, and the ease and cheapness of the research. There has been little work however on the validity or reliability of the research with many 'validation' claims merely being examples of successful advertising campaigns based on qualitative research and as such should be treated with scepticism.

Twyman (1973) reports on a study where 5 psychologists reporting independently analysed two group discussions and differed from one another on a wide number of aspects and from a quantified study. As two groups is much too small a number to begin drawing conclusions from, the finding is not all that unexpected and

should not be taken as evidence of invalidity.

Cooper and Branthwaite (1978) report on an experiment conducted to compare the relative reliability and validity of qualitative and quantitative research, the processes of data analysis in each and their relative usefulness for management decision making.

Two studies of the same marketing problem were conducted, the qualitative study consisting of six group discussions, the quantitative study being a hall test with 550 respondents interviewed by questionnaire. Both studies were conducted 'blind', independently of one another and using differing personnel and copies of the reports were then given to a panel of 13 judges.

The conclusion was that the results and conclusions from the qualitative study were closely comparable to the quantitative study while additionally identifying subtle manifestations of consumer attitudes which the quantitative study could not discriminate. Also, the qualitative study cost approximately half of the quantitative study.

Reynolds and Johnson (1978) also note that marketing practitioners believe that qualitative research, even with its limitations, is better than no research at all, but point out that if the research has no predictive or convergent validity this may not be a sensible view to take.

They report on a large scale study using 20 group discussions and a 19 page 2000 respondent questionnaire and conclude that:

"In only one comparable instance were qualitative and quantitative findings not in accord and later sales data showed the qualitative findings to be a more accurate reading of the market."

They suggest that quantitative studies have their own vulnerabilities and that qualitative studies are often important as a double check.

The fundamental questions to ask about all research techniques are those related to precision, reliability and relevance of the data and their analysis (Goode and Hatt 1952).

- \* How precise are the observations?
- \* Can other researchers repeat the observations?
- \* Do the data actually satisfy the demands of the problem, that is, do they actually demonstrate the conclusion?

They state:

"If the observations are crude, casting them in statistical form will not help the research. If other scientists cannot repeat them, mathematical manipulation is futile. If the data do not satisfy a rigorous logic of proof, the conclusions remain doubtful."

They further point out that no matter how precise measurement may be, that which is measured remains a quality. Quantification merely achieves greater precision and reliability in measuring the qualities that are considered important, but in a fundamental sense remain qualitative.

## Sampling Error

To increase the validity and reliability of survey data one must minimise total error and its components, sampling and non-sampling error. These two components are present in all surveys. Random sampling error is encountered because the sample selected is not a perfect representation of the test population. Non sampling error is caused by phenomena such as subject non-response and misreporting of answers that are not associated with the actual sampling process.

Random sampling error is well understood and can be controlled by the careful selection of sample population and by increasing sample size. Non sampling error is caused by non response, faulty response, the influence of the interviewer, the influence of the situation and a host of other factors.

In order to assess the total uncertainty of a research method both forms of uncertainty therefore have to be considered and it would be wrong to choose a methodology purely because of the low sampling error associated with large samples.

Cooper and Branthwaite claim that in many situations the sampling error of qualitative research can be reasonably traded off against its low non sampling error, as shown below.

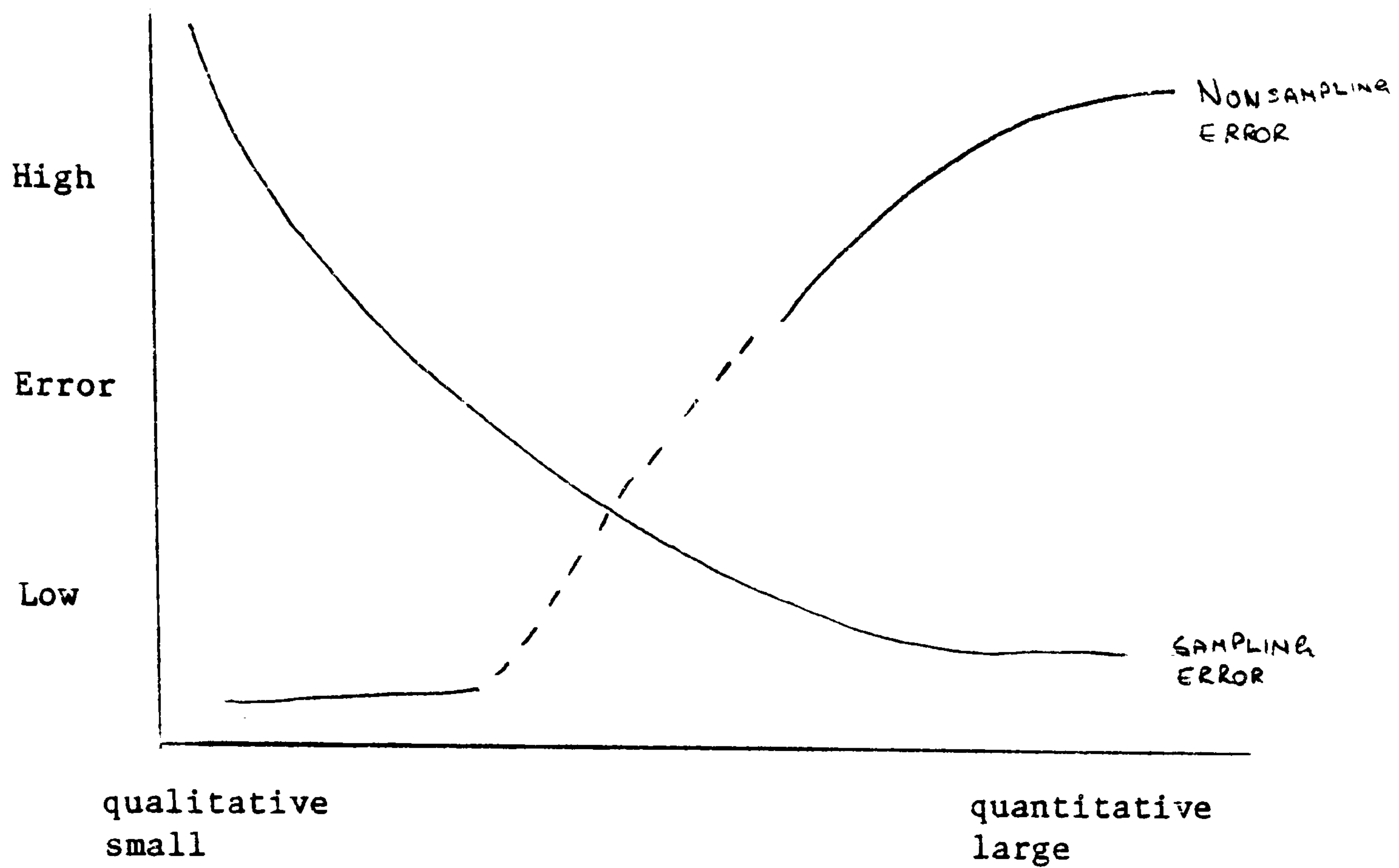


Figure 5.2 Sampling and non sampling method by type of research method

This case is supported by Lipstein (1975) who argues for small samples on the grounds that increasing the scale and size of the investigation will increase statistical reliability but the introduction of additional interviewers and coders etc brings with it increasing variation in error. He argues that in some circumstances survey results could be improved by reducing the sample size, sometimes considerably, rather than increasing it.

Other research by Assael and Keon (1982) supports this. They compared data collected by a number of methods and concluded

"that sampling error was inconsequential compared to non sampling error."

Non sampling error was on the average about 95% of total survey error and they conclude that the emphasis on large samples to

reduce error may be misplaced.

The conclusion this researcher came to was that qualitative research was a valid research method which would in some situations give more meaningful findings than other techniques. It was decided that focused interviews following an interview guide was the most suitable qualitative research method in this instance. The interview guide was based on the research questions discussed earlier and its role was as an aide memoir for the interviewer rather than a structured sequence. It was found to perform this function adequately.

The sample size was chosen after considering the nature of the research and time and resource constraints. A sample of 50 respondents was obtained, using social class and mode of acquisition as the quotas, as below.

	Rental	Bought
ABC1	12	13
C2DE	13	12
	-----	----
	25	25

The interviews were taped and then transcribed. The transcripts were then content analysed. This was done by creating a matrix consisting of the points on which information was required, by



respondents. Each script was analysed both for comments on individual items as well as for general tone and feelings. In the final analysis the researcher could compare all the responses made on an item, as well as comparing any respondents comments on other items. This allowed for checking of individual points as well as trends and relationships without losing the feel of the interviews.

### Reflection on methodology

The interviewer would have preferred to have completed the interviews closer to the completion of the stage one study. However competing demands on the researchers time meant this was not possible. The interviews themselves lasted approximately 45 minutes to an hour, excluding introductions. The respondents sometimes had difficulty in describing the process of decision making they had gone through necessitating greater interviewer guidance and participation than he would have wished. This was particularly true of those individuals who had conducted little market search and had a limited Consideration Set. In these circumstances the respondent tended to claim 'He had seen it, liked it and had bought it' and sometimes had difficulty in expanding on this. Respondents would have been happier in some cases in talking about video tapes, of their use of the video, rather than recalling a decision process which had taken place some time previously and had not been of much interest or importance to them.

However, despite these difficulties it was the interviewers judgement that this methodology was a valid technique for our purposes, and more so than a more structured approach. While respondents would have been able in most cases to give some response to a multiple choice question on their search behaviour or attributes of importance, it was clear that such responses would often have related to their present beliefs rather than how they felt at time of purchase. Similarly the initial response was often superficial, sometimes a rationalisation, and a more considered answer later in the discussion often gave a more accurate insight into the behaviour. The respondents did not have clear structured answers to the topics of interest, sometimes misinterpreted questions and would frequently have preferred to discuss areas of more interest to themselves. While some respondents who had conducted a formal search and evaluation procedure could articulate this quite clearly, the majority of respondents had been much more casual and had more difficulty in explaining why they had behaved the way they had.

It is possible that group discussions held prior to the individual interviews could have uncovered some of the more attitudinal information and given guidance for the interviews but this would have entailed a further delay, considering the difficulty encountered finding relevant respondents in the population. Projective techniques, such as stimulus cards or cartoons, might have both encouraged the less articulate respondent and resulted in more spontaneous thoughts and

insights.

Despite these reservations, after analysing the transcripts the researcher was satisfied with this stage of the research.

### Conjoint Analysis

One element in our research is the relative importance of attributes in the choice situation. Consumers are often asked what product attributes are most important to them, or what their "ideal" levels of various product attributes might be. As Johnson (1974) has pointed out neither of these two approaches is entirely satisfactory. Apart from the normal problems associated with asking consumers to quantify attributes or criteria, the level of importance is often highly specific. Thus, quality of picture might be considered an important attribute of video recorders when considered in the abstract, but may be quite unimportant when considering individual recorders, if all brands are considered equal on this point.

The identification of ideal levels, of attributes is also inadequate. Since no consumer is likely to find his ideal brand what is needed is information on how individuals value various levels of each attribute and the degree to which they would forego a high level of one attribute to achieve a high level of another.

A methodology which has received attention in recent years in conjoint analysis. This technique requires the respondent to choose between alternative products/concepts/etc. which are described to them in terms of combinations of attributes. They are asked to rank order their choice and this non-metric data is computer analysed to find the utilities, or part worth of each attribute. The methodology is able to generate rather refined predictions from quite primitive non metric data and has wide applicability and is most appropriate for product categories where consumers desires are heterogeneous and where markets are highly segmented (Johnson 1974). The data can also be analysed at either the group or individual level.

#### Validity

Studies have been conducted to investigate both the temporal and structural validity of conjoint analysis. The structural validity has been studied by McCulloch and Best (1979) who reported that while changing one in three attributes the correlations between partial preference utilities observed for the unchanged attributes were .90 and .75 for two products. This is similar to the finding of Parker and Srinivasan (1976) cited in the above who found correlations of .96 with a two month interval between the tests.

The temporal stability has also been tested by Acito (1977) McCulloch and Best (1979), Acito measured the temporal stability

over six consecutive days and found a median Spearman rank order correlation of .89, .95, .97, .99, 1.0 respectively for five consecutive replications of 27 stimuli. McCulloch and Best used a two day gap between test and retest and obtained correlations of over .90.

Blackston and van der Zanden (1980) were interested in the long term stability of individuals preference structure. They retested a subsample 12 months after the initial study and in a major commercial study concluded that:

- \* measuring values by trade-off is subject to a certain amount of measurement bias and/or temporal/situational effects.
- \* the main incidence of these effects seems to be confined to the estimates of values for less important characteristics.
- \* for this reason the influence of the values' instability on the output of the model - and hence its continuing accuracy - are very marginal.

They concluded:

"The non trivial nature of the experiment (16 attributes, a real market sample of involved respondents, a twelve month interval and comparison with actual behaviour) give evidence that Conjoint Measurement may very well be applied to help management solve their marketing problems, at a cost that does not recur too frequently."

## Preference Models

In estimating the utilities to be given to the various attributes of a product conjoint measurement has to make certain assumptions about the procedures which will be used to evaluate the product.

We have already discussed the various possibilities, such as compensatory or non-compensatory, and conjunctive, disjunctive and lexicographic to name the most frequently mentioned models of consumer preference.

The assumption usually made with conjoint measurement is that an additive linear compensatory model is used. Green and Srinivasan state that this need not be a problem as "the compensatory model of conjoint analysis can approximate the outcomes of other kinds of decision rules quite closely." They quote a recent study by Berl, Lewis, and Morrison (1976) which showed that the linear compensatory model was more consistent with the respondents actual behaviour than the lexicographic and conjunctive rules. This issue is discussed further by Green and Rao (1971) who also test the suitability of Monanova and found it "a good approximation of reality."

Cattin and Wittink (1983) surveyed commercial users of conjoint analysis and found that Monanova was the single most popular method during the period since the companies started using conjoint analysis. As companies became more skilled and sophisticated they seemed to move onto more complex programmes

using interval scaling and non compensatory as well as compensatory models.

As Monanova is the programme used most frequently in academic papers, and was suitable for our purposes, it was decided that it would be used in this research. A programme was obtained from a commercial market research organisation and it was adapted to run on the computer available to the researcher.

### Data Collection

Two main data collection methods used in conjoint analysis exist.

- \* the two-factor or pairwise approach.
- \* the full-concept or full-profile approach.

In the two factor trade off procedure attributes are considered in pairs, and the respondent is required to rank order all possible combinations of levels generated from a pair of attributes. This approach has been used in a number of studies and the following comments can be made regarding its suitability. The procedure is simple to apply and reduces information overload on the part of the respondent. It is thus most used in situations where a large number of attributes are to be considered. It is also suitable for use in mail questionnaires since no special props are needed. (Green and Srinivasan 1979)

It also has a number of practical problems in use. Firstly the consideration of only two factors at a time sacrifices some

realism. This can lead to boredom on the part of the respondents who are then more likely to adopt patternised types of responses. Le Claire reports his respondents worrying about the arbitrary nature of some of their choices and whether they had been careless in their responses. Secondly, the amount of tables the respondent is asked to fill out can become excessive. While this problem can be reduced with partially balanced incomplete block designs, the total number is often large leading again to boredom and low response.

The full profile approach uses the complete set of factors which are shown to the respondent on stimulus cards which they are asked to rank. This more nearly replicates the actual decision situation but as a result, information overload can result if too many factors are included.

This approach usually entails fewer judgements to be made although each judgement is more complex. Usually factors are limited to five or six although more complex 'linking' designs can be used if necessary.

A number of studies have investigated the reliability and validity of the two methods of data collection. Oppedijk van Veen and Beasley (1977) tested 3 brands at three levels and concluded that the method of data collection did not effect the estimate of the trade off utilities. Segal (1982) similarly found that reliability measures for both procedures were good with an overall preference for the full profile method. Green



and Srinivasan cite two studies which found the two factor method to be superior but it is suggested this was due to the number of attributes used (8 and 9) which may have led to information overload.

The choice between the two methods seems to relate to the number of factors which need to be tested and the importance of ease and speed of completion by the respondent.

In this study the respondent would be asked to complete the conjoint ranking procedure at the end of a personal interview and the simplicity of the full factor approach resulted in it being chosen in this instance.

#### **Fractional Factorials**

A respondent will normally take about 30 minutes for a full profile rank ordering task with five attributes on 25 profile cards. Given the usual problems of retaining the respondents interest in the task it is often difficult to increase the amount of cards much above 30 if meaningful results are expected. However, to test five factors at three levels, for instance, would require 243 different cards to cover all possible combinations. Six factors at three levels would require 729 cards and so on.

The problem for this research, having chosen the full profile approach was what amount of attributes should be considered at how many levels. Suitable factorial designs could then be considered and evaluated.

The researcher had previously conducted research in this area and also had access to two qualitative research reports from video recorder manufacturers. These findings led to the conclusion that five criteria seemed to be used in choice decision, although many elements might go into developing an opinion on these criteria.

These were:

- \* type of format
- \* price
- \* company name
- \* design or 'looks'
- \* amount of features

Three formats were available, but most consumers only knew about VHS and Betamax.

Price ranged from approximately £350 to over £700 with rental similarly varying over a range from about £14 to £20 a month.

The company name seemed to relate to reputation, it being assumed that a well known name meant it could be trusted.

Design was often mentioned in terms of being neat, compact and

attractive.

Features related to the wish to have simple, easy to understand controls, with a clear picture, or such things as wanting fast search, many programming features, remote control, freeze frame, slow motion, etc.

Initially, it was considered having a mixture of factors at two or three levels but this would have led to the need for a 'balanced incomplete block design' which would have complicated the analysis, and would have required alterations to the Monanova programme. The normal practice is to use either two or three levels of each factor. Five factors at three levels would give 245 possible combinations of attributes. Four at three, 81 combinations. Five factors at two levels gives 32 combinations.

Four or five factors at three levels would be beyond the resources of the respondent and researcher, yet to restrict the levels or factors may decrease the validity or usefulness of the data.

This problem is resolved with the use of a balanced design, or fractional factorial designs. (Green, Carrol and Carmone 1978) As the name suggests fractional factorials entail the selection of a specific subset of combinations which will allow the estimation of utilities and interactions while only losing information on higher order (three or four-factor) interactions. The most common type of designs are those that allow for all main

effects and two factor interactions to be estimated on an uncorrelated (i.e. orthogonal) basis. As Monanova only gives main effects this was not a major restraint in this instance.

After considering the likelihood of respondent fatigue, information overload and the nature of the research, it was decided that five factors at two levels was a sensible compromise between restricting the factors to allow more levels, or restricting the levels to allow more factors. The five factors listed above covered the major areas, and expansion of a factor (i.e. reputation and awareness of brand name) was likely to lead to interactions between factors which would reduce the effectiveness of interpretations of the data.

A half replicate of a 2,5 factorial results in 16 cards. At this level of replication main effects for all five factors would be distinct (i.e. not confounded with each other). This area was developed in the 1950's and the work of William Cochran and Gertrude Cox (1957), Cox (1958), and Oscar Kempthorne (1952) are still the seminal sources for those interested in the statistical and mathematical justification for fractional factorials. In this instance, it is sufficient to say that without their work the planning of experimental designs would be much more complex than it in fact is. By using a carefully chosen subset of the full factorial design (in this case 16 of the 32 cards) it is still possible to estimate what would have happened in the choices not given to the respondent.

Cochran and Cox give a plan for a half replication of five factors at two levels, as below, and using this information it is possible to select from the 32 combinations the relevant 16 for the rank order experiment.

Blocks	(1)	(2)	(3)	(4)
	(1)	ac	ae	ad
	ab	bc	be	bd
	acde	de	cd	ce
	bcde	abde	abcd	abce

The 1/2 replication plan indicates which are the levels for each card, i.e. high or low. The 16 cards correspond to the 16 cells. Thus ac, cell 2, means that factors a and c, format and features, are at a high level and the other three at a low level. (High and low are arbitrary terms. The levels could be nominal, i.e. Pine smell and Lemon smell, Green pack and Blue pack.

Based on the previous research the levels chosen for the five factors were:

format	vhs	beta
price	above average	below average
features	sophisticated	basic
brand	well known	not well known
design	neat/compact	untidy/bulky

The 16 cards were therefore created following this plan as in Exhibit 1, which is the card representing the cell in column 3, ae.

#### Exhibit 1 HAND CARD

A video recorder with these features:

- \* VHS format
- \* Priced between £350-£500
- \* Basic model
- \* Not well known brand
- \* Neat and compact design

We therefore had 16 cards, each describing a video recorder on five different factors. The wording was changed on the price factor depending on whether the respondent was renting or had bought but the wording used was chosen to ensure the same level of that factor was being described.

After the interview respondents were presented with the 16 cards, placed in random order, and asked to place the cards into 3 piles. Those they would consider, those they might consider and those they would not consider purchasing, (or renting as the case may be). They were then presented with each pile and asked to sort these into a preference order. The experiment lasted about 15 minutes.

The rank order of the 50 respondents, or their average, is the

input to the Monanova program. (Dr. Stephen Tagg of the Social Statistics Laboratory is to be thanked for his help in this area.)

The Mananova program then calculates the utility each individual has placed on the various factors which allows one to calculate the trade off each respondent would be prepared to consider.

An analysis of utilities can continue for as long as the analyst considers it worthwhile. If the sample is large enough various subgroups can be selected and compared to gain an understanding of the choice patterns. One would expect the groups chosen to relate to existing segments in the market place, i.e. buyers/renters, social class etc but this need not be the case. The utilities can be subjected to cluster analysis to uncover hidden segments who are similar in their choices (Le Claire 1980). Conjoint analysis can be used as a micro behavioural modelling approach to investigate the cost effectiveness of a potential new product (Lunn and Blackstone 1978) and the utilities linked to probabilities of purchase for market share simulations (Diamond 1982).

Various warnings should be given however regarding the use of this technique. The value of conjoint analysis is dependent upon the specification of both factors and levels of these factors. If a manufacturer conducted a conjoint experiment on product features (freeze frame, colour search, remote control etc) then these features would be given various utilities from high to low,

even though product features themselves might not be of importance to the consumer.

Secondly, the utilities are related to the levels chosen. While the levels need not be opposites they must be reasonable alternatives from the consumers point of view. Increasing the number of levels will give greater understanding of the role of any one factor, but at a cost of greater complexity to the consumer and the need for fractional factorials to be applied to reduce the stimuli. In our study 5 factors at 2 levels were chosen but readers should be aware that other studies have shown a curvilinear effect on various factors which would not be uncovered by a two level investigation.

The quality of the initial exploratory work will thus have a major impact on the output from such computer studies and one should not be so overawed by the majesty and complexity of the algorithm that questions are not asked about earlier stages.

In conclusion, the technique is a useful one which gives insights which might not otherwise occur. It is a simple data collection task with stability of estimates with relatively small samples. It allows not only the relative importance of attributes to be found but also the value to consumers of specific levels of that attribute. It also has the ability to simulate probable acceptance of attribute combinations not actually tested.



## Reflection on Methodology

Respondents generally had no difficulty with this procedure. They understood what was required and often considered the method of selecting their 'best' choice similar to what had happened in reality. They also considered the criteria they were offered were those used at the time. Some respondents considered it was a more formal and thorough method than they had used.

When selecting the three piles respondents were often using non compensatory rules, i.e. all Beta into the third pile, all videos below average price into the first pile etc. Compensatory decision rules were not used until the final stage when rank ordering within the piles. As compensatory rules normally give good approximations to non compensatory behaviour this may not matter.

We now move on to the analysis of the findings of the research. Chapter 6 discusses the findings of the first stage quantitative study. The qualitative study is discussed in Chapter 7 and the conjoint analysis in Chapter 8.

## CHAPTER SIX

### FIRST STAGE FINDINGS

#### Introduction

This chapter will present the findings related to the hypotheses outlined in chapter 4 and listed in chapter 5. The initial section will present the data on television and video ownership and method of acquisition to see if any similarity in make of machine or type of ownership exists.

The specific hypotheses relating to cognitive beliefs will be considered next, (hypotheses 1 to 3). The level of knowledge, experience and self confidence of video owners and non owners will next be given to investigate hypotheses 4, 5 and 6, followed by intercorrelations between these three variables (hypotheses 6 and 12).

Hypotheses 7, 9 and 11 dealt with our expected findings on generalised self confidence and its intercorrelation with specific self confidence and the findings on this are next.

Opinion leadership had two hypotheses predicting a relationship with ownership (hypothesis 13 and 14) and two hypotheses regarding its intercorrelation with the previously mentioned

variables, (hypotheses 15a, 15b, 16a, 16b).

Risk perception has a major section to investigate hypothesis 18, 19 and 20. Following this section the dimensions of risk are studied in greater detail. Intercorrelations with other variables are studied next to investigate hypotheses 21, 22, 23, and 24.

Social normative influence has the final section to investigate hypothesis 25, and this is followed by the conclusion to the chapter.

The sample was analysed firstly by studying the raw data in total to investigate response trends. The sample was then split into the two groups of interest, video owners and non owners and the exercise repeated. The skewness of much of the data suggested the use of non parametric statistics in comparing the groups while the nature of the hypotheses did not require complex statistical procedures.

The usual pattern followed in the chapter will be to restate the hypothesis and present the data and any necessary test. These findings will then be discussed in greater depth and conclusions drawn as necessary.

### Sample characteristics

The initial questions investigated actual ownership of the product under investigation and type of ownership for purposes of classification. No hypotheses had been suggested in this area.

Respondents were first asked for details of ownership of colour television and video recorder. Of the total sample of 278, 91% of the sample had a colour television, of which 49% were rented and 49% were bought. (Two percent claimed both).

Of the video recorder households (n=83), 43% reported the video recorders were rented and 57% were bought, and for 89% of video respondents this was the first machine they had acquired.

Sufficient numbers of both owners and non owners of video recorders were therefore obtained for further analysis. The owners are also capable of being analysed by method of acquisition, i.e. renters or purchasers.

Those renting were asked whether they intended to purchase a replacement machine within the next year or if they would continue renting. Of the 31 replying 29% indicated they would be buying a replacement. The rest would continue renting. Non video respondents (n=195) were asked whether they were likely to get a video in the next 12 months and whether they were likely to rent or buy. 11% said they were likely to get one, 45% of them choosing rental and 55% choosing purchase.

The high percentage of first time owners of video recorders reflects the youth of the market at the time of the research when penetration was approximately 10 to 15% compared to the present 40%. The product was chosen on the expectation that its acquisition would be seen as Extended Problem Solving and this is still likely to be the case. Of the 36 video renters 31 responded to the question as to whether they would continue to rent or change to buying and the intention of 29% of them was to buy within the next 12 months. This finding, if translated into action, would be a severe blow to the rental companies who would need a significant number of new accounts to maintain their revenue. However, the finding that 11% of non owners intend to become owners, and that 45% of them chose rental over purchase should give comfort to the rental companies as their loss of revenue from existing customers should be made up from new customers (considering the size of the market who have not yet adopted). It does, however, suggest a high level of change in the customer base, (what cable companies call a high "churn" rate).

### Loyalty

It was possible that respondents might simplify the choice process by transferring their experience with a specific brand to what they may have perceived as a related product. If this was the case the acquisition could well be similar to a repurchase or limited problem solving situation. The make of television was therefore compared to the make of video recorder to see if a relationship existed. (Table 6.1)

Table 6.1 Video respondents with same make television as video recorder

		%
make the same	16	19
make different	35	42
not given	32	39

base:all video owners n=83

It can be seen in Table 6.1 that 19% of video owners acquired the same make of video recorder as television, compared with 42% with a different make. 39% did not respond to the question but this was probably due to deficiencies in the question which required the respondent to write in the actual make.

A similar question arises with mode of acquisition. If a relationship exists between the method of ownership of colour television and video recorder, did video respondents draw upon their experience in renting or buying televisions in the decision to rent or buy a video recorder?

Table 6.2 gives a comparison of those who rented or bought their video against those who rented or bought their television. As can be seen there is a strong tendency to use the same method of acquisition for both television and video. (Significant at the 0.0001 level,  $\chi^2 = 15.70252$  with 1 degree of freedom )

Table 6.2 Method of obtaining video compared with method of acquiring television Base=All video owners

	Rented Video	Bought Video	Total	
Rented t.v.	23	10	33	(40.7%)
Bought t.v.	11	37	48	(59.3%)
	34 (42%)	47 (58%)	81	(100%)

It would seem therefore that it might well be the case that a preference for a brand can be predicted from knowing the existing brand of a similar product. This would suggest that a transfer of knowledge is taking place but no conclusions can be drawn, however, without a deeper analysis of why the particular brand was bought. This is also true of the question relating to method of acquisition which also suggested that video respondents might be transferring their preferences towards renting or buying across products.

The four categories of respondents as shown in Table 6.2 can be discussed further. If respondents were previously renting a t.v. then there is a financial incentive to rent the video as a discount is given. Similarly the inconvenience of paying weekly is not increased by renting two items (so long as it is from the same outlet). Thus an association here is to be expected. Similarly, those who have rejected renting a t.v. in favour of buying show a preference for buying which may not be overcome by the possible increased risk of video. Those who have bought a t.v. but rented a video can be explained by the possible

perceived risk involved in video ownership which no longer exists with television. The problem arises in explaining those respondents who rented their t.v. but bought a video, as this seems to reverse the expected sequence of moving from rental to purchase as risk reduces. It is possible this is due to inertia rather than preference and these respondents will stop renting their t.v. as soon as the necessary stimulus to action arises.

The findings relating to the specific hypotheses dealt with in Chapter Four will now be discussed.

#### **Cognitive Beliefs about video ownership**

As discussed earlier many elements enter into the decision to obtain a product. The first of these variables were the cognitive beliefs held about the product or type of person who bought such a product. This was stated as three hypotheses.

Hypothesis 1 Cognitive beliefs about video recorder ownership will differ between video owners and non video owners.

Hypothesis 2 Video owners will have more favourable beliefs about video recorders than non video owners.

Hypothesis 3 Video owners will differ from non video owners on their perception of the sort of person who has a video recorder.

To test hypothesis 1,2 and 3 we asked two open ended questions to elicit responses regarding,



Question 5 \*"What sort of things come into your mind when you think of having a video recorder?"

Question 6 \*"What sort of person do you think has a video recorder?"

Hypotheses 1 required an analysis of the actual beliefs held by video owners and non owners and this is presented in Table 6.3. This table is a content analysis of the statements made in response to question 5.

We will first consider the comments made by video recorder owners. Of the total of comments made by them items related to convenience were 19% of the total, not missing programmes through programme clashes or being out 20%, hiring films 16%, recording films, documentary or other programmes 19%. Other comments related to the selectivity and choice of films and entertainment (10%) the cheapness as an alternative to cinema (2%) and its use in amusing and entertaining children (2%), visual reference library (2%) and other comments (8%). The negative comments related to sex and violence (2%).

The non video respondents made positive comments regarding the convenience of video (7%), the benefits of not missing programmes (13%), the ability to hire or record films etc (26%), the selectivity and choice of entertainment (5%), the cheapness when compared to the cinema and the lack of need to go to the cinema (3%), comfort of own home (2%), visual reference library (3%), entertain children (2%) and other (6%). Negative comments related

to watching too much television (7%), the poor quality of viewing (boring, sex, violence, terrible films) (9%), the cost (10%), the time wasting element (3%) and other negative points (4%).

Table 6.3 Beliefs regarding video recorders  
Base. All respondents

	Video Owners	Non video owners
convenience	19	7
not miss programmes when out	9	8
not miss programmes when they clash	11	5
can hire films	16	10
can record films	5	3
can record other	14	13
positive other	24	21
watch too much t.v.		7
poor quality viewing		9
cost		10
time wasting		3
sex/violence	2	
other negative		4

Hypothesis 1 is therefore upheld as cognitive beliefs about video recorders do differ between video owners and non video owners.

To test hypothesis 2 an attempt was made to code the responses to the first question into positive and negative comments. This allows us to analyse the overall perception of the products favourability or otherwise as required by hypothesis 2.

This was a difficult task as some comments, such as "porno movies", left it unclear as to whether this was seen by the respondent as a positive or negative feature of video recorders.

An 'other' category included responses which could not be so

classified. The 72 video owners and 148 non video owners who responded to the question gave a total of 146 positive statements and 52 negative, leaving 43 statements unclassified. 86% of video owners made positive statements and only 4% negative. This compared to 57% positive statements and 33% negative from the non video owners. The relevant data is presented in Table 6.4. (Some respondents made both positive and negative statements and thus percentages do not add up to 100.)

Table 6.4 Positive or negative comments regarding video recorders  
Base:all respondents,n=220

	Video owners %	Non owners %
Positive	86	57
Negative	4	33
Other	17	21

As can be seen video owners had a clear majority of their comments classified as positive, compared to the non video owners who, while generally positive, also seemed to be aware of negative aspects of video recorders. Hypothesis 2 is therefore supported.

As expected those who had a video made generally positive comments. This finding agrees with Pickering and Greatorex (1980) who found that owners have a more favourable perception of the product than do non owners. This finding could be due to favourable experience or cognitive dissonance by the respondent. It is interesting that those who do not own a video recorder,

while being aware of the negative aspects of videos, are still generally positive towards them in their statements. This may suggest that should their financial or other circumstances change (enabling conditions in Baker's model), or a relevant stimulus (precipitating circumstance) be met, then these respondents might well be potential video owners.

As shown by the data respondents saw the benefits of video as being related to the general convenience of the video, of being able to watch what they liked when they liked, and not having to miss programmes they wanted to see.

The main negative comments related to the cost of the video and the worry that too much time would be spent watching tv., or that it would stop them doing other things and waste free time. The poor quality of t.v. programmes and video tapes were also a consideration with worry about sex, violence and terrible films.

Another point which can be drawn from the data is that there was no criticism of the video recorder itself. Other than cost by non VCR respondents, no mention was made of possible defects in the machine, the criticisms being of the effects of having a VCR rather than against the functioning of the product itself. Pickering and Greatorex (1980) predict that owners will be less worried about cost and have more favourable view of attributes, but the absence of negative comments suggests implications for risk perception in that most undesirable consequences are to the lifestyle and quality of life rather than the consequences

commonly associated with risk. The second stage study will investigate this area further.

### **Person Beliefs**

Hypothesis 3 was that video owners would differ from nonvideo owners on their perception of the sort of person who has a video recorder. As mentioned earlier this was tested by a simple open ended question. The comments made were then content analysed in the same way as previously.

It was felt that the responses could be classified into three main classes. Comments relating to the income level, social class or availability of disposable income were classified into one group. Comments relating to how people spent their time, or a description of their lifestyle formed the second category. The third class of comment tended to be evaluative as well as descriptive (i.e. innovator, compulsive spender, materialist, bored people with too much time) and thus while being similar to lifestyle were treated as a separate category. Table 6.5. gives the relevant data.

Table 6.5 Beliefs about the type of person  
who had a video recorder

Base: All respondents n=72 video, 148 non video respondents

	Video respondents		Non video respondents	
Class:				
working	2	3	2	1
middle	0	0	2	1
upper	1	1	1	1
wealthy/spare cash	6	7	32	16
	-----		-----	
	9 (11%)		37 (19%)	
Lifestyles:				
shift/busy/out	4	6	18	9
non active/house	2	3	12	6
family orientated	3	4	11	6
other	1	1	3	2
	-----		-----	
	10 (14%)		44 (23%)	
Personality:				
likes films	6	7	8	4
likes t.v.	10	12	4	2
tv addict	3	4	16	8
innovator/trendy	3	4	24	12
other	1	1	5	3
	-----		-----	
	23 (28%)		57 (29%)	
No type	32 (40%)		32 (16%)	
Other	7 (9%)		30 (15%)	
	-----			
Total	81	102%	200	102%

As a proportion of all comments made, video respondents made class related comments 11% of the time, 14% lifestyle related comments, and 28% personality comments. 9% of comments were classified as other. 40% of comments were that there was no one stereotype of video recorder owner.

Video respondents when mentioning class mentioned that spare cash was needed to afford one (7% of video comments,) but didn't link this to a specific class. The lifestyle comments (14% video) was split between an active person out a lot or on shift work, (6%), and a non active housebound person (3%), perhaps a family with children (4%). The main comments under personality (28% video ) related to someone who likes to watch films or t.v. (19%), perhaps to the point of being an addict (4%). A small amount of comments were made about being a social climber, or abreast of the times (4%).

Non video owners mentioned class related comments 19% of all comments, compared with 23% lifestyle comments and 29% personality comments. 15% of comments were classified as other. 16% of comments were that no one type of video person existed.

Non video respondents similarly made a number of comments about the need to be wealthy and have spare cash (16%) without clear agreement as to which class this would be. The lifestyle (22% of all comments) was again split between an active person, out a lot or on shift work (9%), and a non active housebound person (6%), perhaps with children (6%). Personality related comments were again someone who likes films (4%) or t.v. (2%) with a larger proportion mentioning t.v. addict. (8%). They also made comments about the person being a social climber, an innovator, abreast of the times, perhaps a compulsive spender or gadget lover (12%).

Various differences between the two groups can be noted. Video

people show a reluctance to be stereotyped, stating no type 40% of the time compared to 16% of non video respondents. This difference in proportions is almost totally balanced by the reduction in comments by video owners regarding lifestyle or personality characteristics.

Non video people relate ownership more to class and lifestyle (40% of comments) than video respondents (23% of comments). Non video respondents seem to believe that one must be wealthy but with no necessary class bias. This is a reasonably accurate reflection of reality suggesting a limited status appeal for the product. Video people do not seem to want to recognise their relative affluence, and do not believe that they are any less or more active than non video people.

There is no real agreement over lifestyle although approximately twice as many people thought video recorders were for busy, active people as for non active. This may have similarity with early findings regarding convenience foods where manufacturers sold the product as being for the "busy mother" but consumers were worried that to use the product would suggest they were lazy uncaring housewives. (Mason Haire 1956)

As regards personality the percentage of comments for video owners and non video owners is almost identical at 28 and 29%. The main difference is that while the video owners "likes t.v.", this is by non video owners as being evidence of a "t.v. addict."



Disparaging comments were also made by non video owners about trendy people, innovators etc.

Hypothesis 3, that video owners will differ from non owners on their perception of the sort of person who owns a video recorder, is therefore accepted.

If this area was to be investigated further either in depth qualitative methods could be used, as in stage two, or semantic differential scales or other techniques would be suitable if a quantification of results was required. The implications for manufacturers would be to stress the positive beliefs while attempting to change the negative elements.

### **Knowledge**

We next investigated the level of perceived knowledge regarding video recorders and we predicted in hypothesis 4 that knowledge would be low, but it would be higher for video owners than non video owners. The distribution of knowledge was measured using a five point scale as explained in chapter five. The findings are presented in Table 6.6.

It was found that the video owners had almost a normal distribution of knowledge, with 35% of respondents being below the mid point on the five point scale. The non video owners had 52% of respondents on the extreme value of no knowledge at all, and 82% below the mid point of the scale giving a very skewed distribution.

The mean of the video owner group is 2.867, compared to the non video ownership group who had a mean of 1.714. The mode and median of the first group was 3 compared to a mode and median of 1 for the non video owners.

Table 6.6 Perceived knowledge of video recorders by method of ownership

	Video owners	Non video owners
	%	%
1	11	52
2	24	30
3	41	15
4	16	2
5	8	2
	-----	-----
	100%	100%

Base= 83 video owners, 192 non video owners  
 1= low knowledge,5= high knowledge

As expected the video owners perceive themselves as having more knowledge than the non video owners and Hypothesis 4 seems to be supported and to test this further a Mann Whitney test was carried out.

The Mann-Whitney test, does not require assumptions about the shape of the underlying distributions. It tests the hypothesis that two independent samples come from populations having the same distributions. The form of the distribution need not be specified. As our data did not meet the assumptions required of a t test it was therefore the most suitable test in this instance.

The Mann-Whitney test ranks all the cases in order of increasing size and computes a test statistic U, the number of times a score from group 1 precedes a score from group 2. (For larger samples U is transformed into a normally distributed Z statistic).

The Mann-Whitney showed a significant difference ( $p < 0.001$   $U = 3337.5$ ,  $Z = -8.0441$ ) and Hypothesis 4 is therefore accepted. (No hypothesis was suggested for the relationship of knowledge with rental or purchase, and no relationship was found.)

One interpretation of the findings would suggest that a major awareness campaign needs to be launched if the present non video group are to be informed about the benefits of video recorders and the products attributes. At present the majority of non video respondents claim to have no knowledge at all about video recorders, choosing the most extreme point on the scale. The video recorder owners have a wider dispersion of responses but even so the average respondent chose the mid point on the scale rather than claim a great deal of knowledge. This is perhaps strange as the process of search and evaluation which should precede purchase, and then learning through use, should presumably have made them very knowledgeable respondents. The next two measures continue this analysis.

### **Experience**

Hypothesis 5 predicted that experience would be low but that it would be higher in video owners than non video owners.

This was measured on a five point scale. The findings are presented in Table 6.7. It can be seen that video respondents had a flattened distribution curve with a slight skew to the left with 40% of respondents being below the midpoint. Non video respondents again were much more skewed to the left with 69% taking the extreme value of no experience at all and 85% being below the midpoint.

Table 6.7 Perception of Experience by ownership

	Video owners	non Video owners
	%	%
1	18	69
2	22	16
3	28	10
4	15	3
5	18	3
	-----	-----
	100%	100%

Base: video owners 83, non video owners 195  
 1= low experience 5= high experience

The mean of the video respondents was 2.928, compared with 1.549 for the non video respondents. The mode and median of the first group was 3 compared to 1 for the non video respondents.

Whether this was a significant difference was again tested by a Mann-Whitney test and the two groups of respondents were found to significantly differ on their rating ( $p < 0.001$ ,  $u = 3312.5$ ,  $z = -8.0441$ ). Hypothesis 5 is therefore accepted. (No hypothesis was suggested regarding the relationship of experience with rental or purchase, and no relationship was found).

It is to be expected that video people would have varying degrees

of experience, as reflected in the almost normal distribution. As this was the first machine for most video respondents this may explain why they do not rate themselves as more experienced. It is interesting that non video people perceive their experience as being very limited, suggesting that they have not gained experience from viewing or using friends or relatives machines. Some form of trial period to overcome this lack of experience may be a possible solution, and the inter-relationship of experience with other variables will later be noted although at this stage no causality is being suggested.

#### **Specific Self Confidence**

It was expected that specific self confidence would be related to video ownership. In particular Hypothesis 8 stated that Specific self confidence will be related to video ownership, with owners having higher self confidence than non owners.

Hypothesis 10 stated that Specific self confidence will be lower for video renters than for video purchasers.

The distribution of respondents on a five point scale used to measure their perceived specific self confidence is shown in Table 6.8.

Table 6.8 Specific Self confidence by owners and non owners

	Video owners	Non video owners
	%	%
1	25	63
2	18	18
3	34	12
4	16	6
5	7	2
	-----	-----
	100%	100%

Base: video owners 83, non video respondents 193  
 1= low self confidence, 5= high self confidence

The distribution of the five point scale used to test this is shown above and it can be seen that the video sample had a flattened distribution slightly skewed to the left (low self confidence) with 43% of respondents being below the mid point. The non video sample had a stronger skew to the left with 62% of respondents taking the extreme position of not at all confident about themselves as judges of video recorders, and 81% were below the mid point. The video owners had a mean of 2.614, a mode and median of 3, compared to the non video owners who had a mean of 1.653 and a mode and median of 1.

To test the hypothesis that a significant difference exists between the two groups a comparison between the two samples was carried out using the Mann-Whitney test which found a significant difference, ( $p < 0.001$ ,  $u = 4433.5$ ,  $z = -6.3753$ ), and Hypothesis 8 is accepted.

Hypothesis 10 states that specific self confidence will be lower for video renters than video purchasers. This was also tested by

the Mann Whitney test but it was not found that there was a significant difference between the two groups and hypothesis 10 is therefore rejected. ( $p=0.3952$ ,  $u=756.5$ ,  $z=-0.8503$ )

As expected specific self confidence was low in both groups , but perhaps not as low as expected. Video respondents are an almost perfect normal distribution while non video respondents are much less certain of their ability to judge the product. Presumably the process of search and use has given information and experience allowing them to create meaningful criteria which can be used in evaluation, but it has not given the confidence one might expect. The difference between the two groups is quite large, with non video respondents being generally extremely dubious about their ability to judge the product. This would again suggest the need for a high information campaign to give the necessary information, while remembering that people low in self confidence are more easily persuaded.

Rental was expected to be an option for those who felt unable to judge and evaluate VCR's and it was therefore predicted that specific self confidence would be lower with renters than purchasers of videos, but this was not the case. This could be because the experience of use has eliminated any differences which may have existed prior to acquisition. Thus, repurchase should be a similar activity for both groups if this is the case. To further test the hypothesis measures would have to be taken prior to, as well as after, acquisition.

## Intercorrelations

It was expected that knowledge, experience and specific self confidence would be related to each other, in that as one's experience or knowledge grow they should lead to higher self confidence. This was discussed earlier and lead to Hypothesis 6 and 12.

Hypothesis 6 states that Knowledge and experience will be positively related to each other.

Hypothesis 12 states that knowledge and experience will be related to specific self confidence.

To test whether any such relationship exists Pearson product moment coefficients were calculated for the three variables and are reported below. It should be remembered that these correlations show a relationship and not causation.

Table 6.9 The relationship of self confidence, knowledge and experience

	experience	knowledge
self confidence	0.6351*	0.7682*
experience		0.7432*

\* $p < 0.001$

Base: All respondents

As predicted all three variables have high positive correlations and Hypothesis 6 and Hypothesis 12 are accepted.



## Generalised Self Confidence

Hypothesis 7 states that Generalised self confidence, or self esteem, will be related to video ownership, with owners having higher esteem than non owners. This was measured on a 20 item test using 6 point scales, giving a minimum score of 20 and a maximum of 120. There was a wide spread of respondents on this scale but as the hypothesis related solely to the difference between the groups the Mann-Whitney test was again used to test the hypothesis. A significant difference was found between video and non video respondents ( $p= 0.025$ ,  $u=6398.0$ ,  $z =-2.242$ ) and the data seemed to suggest a difference between the groups.

However, we had previously noted while analysing the demographic characteristics of the sample that a sex bias existed.

The sex of respondent was found to be unrelated to all variables except self esteem which was significant with women having lower self esteem than men. The sample was therefore controlled for sex and the Mann-Whitney test rerun. It was then found that there was no significant difference for the male sample ( $p=0.3012$ ) or the female sample ( $p=0.1743$ ). The hypothesis was therefore rejected.

It was also hypothesised, Hypothesis 9, that purchasers of video recorders would have higher generalised self confidence than renters and another Mann Whitney test was run to test this. The results were found not to support the hypothesis which was therefore rejected. ( $p=0.3925$ ,  $u=753$ ,  $z=-0.8551$ )

These findings of no significant difference between owners and non owners on self esteem do not fit in with the predictions. While the literature on persuasibility and generalised self confidence is not in agreement, some form of relationship is generally found between intention, search, and persuadability which would lead one to expect a relationship with ownership of a video recorder. The lack of confirmation of a difference between renters and purchasers is consistent with the previous measures which show no difference, ( if there is no difference between owners and non owners then one would not expect a difference between renters and purchasers.) The implications for this is that the video respondents do not fit one of the potential characteristics of early adopters and one must therefore question whether the other characteristics of early adopters (opinion leadership, high use of media, use of factual messages, high w.o.m.) apply to video owners.

#### Intercorrelations

Hypothesis 11 states that esteem will be positively related to specific self confidence.

Table 6.10 shows the correlation coefficients required to test this. It can be seen that the correlation is low although significant and in the direction hypothesised.

Table 6.11 Correlation of esteem with self confidence

	specific self confidence
esteem	0.1249
	p=0.021

Base: All respondents

The low correlation between specific self confidence and self esteem is also surprising. As they are both related to persuasibility, risk handling methods, and search and are conceptually related one might have expected a higher correlation. However, the interpretation of correlation scores is relative and a significant correlation of 0.12 might, in some situations, be considered important.

It would therefore seem that those people who have a general good impression of themselves, (high self esteem), do not automatically transfer this generalised self confidence to the specific area of making judgements about specified products. Similarly, there seems to be no "personality" difference between video owners and non video owners even though other studies have suggested that for early adopters this might be the case.

## Opinion Leadership

It was hypothesised (Hypothesis 13) that because of the close similarity between those people who are opinion leaders and those who are early adopters that it could be expected that people who had acquired a video would score highly on opinion leadership scales.

The raw data is presented in Table 6.11. which was taken from the five opinion leadership questions discussed earlier. These allowed a score of 1, 2 or 3 for each question giving a minimum score of 5 and a maximum of 15. The scores are presented as a scale from 1 to 11, with 1 being low opinion leadership and 11 the maximum score. A study of the data shows that an approximately normal distribution existed for the video respondents while the non video respondents were heavily skewed towards the left of the scale, (low opinion leadership).

Table 6.11 Opinion leadership scores

	Video owners	Non video owners
	%	%
1	1	7
2	1	9
3	6	31
4	12	19
5	10	14
6	18	9
7	17	5
8	12	2
9	15	3
10	5	1
11	4	1
	-----	-----
	100%	100%

Base:All respondents

There are many ways the opinion leader scores can be interpreted. Those who are in the lowest third could be considered very low in opinion leadership, and those in the highest third (or quarter or some other arbitrary division) as high in opinion leadership. However if all respondents are low scorers, or high scorers, then this relative measure could be misleading. With our scale a minimum score of 5 and a maximum score of 15 was possible. If the lowest three scale points and the highest three scale points are taken to indicate low or high opinion leadership then a more objective measure is obtained which can be compared to other samples. This was done in this case and the the following table emerged.

Table 6.12 Opinion leadership by video recorder ownership/non ownership

	Video owner	Non video owner
low opinion leadership	7 (8%)	92 (47%)
high opinion leadership	19 (23%)	10 ( 5%)

Base:respondents scoring in 3 highest and lowest scale points  
All respondents

Thus, 47% of non video owners scored in the lowest 3 points on the scale, compared to 8% of video owners, whereas only 5% of non video owners had high opinion leader characteristics compared to 23% of video owners.

This shows a clear difference in opinion leadership between the two groups but a Mann-Whitney test was carried out to confirm this, which it did. ( $p < 0.001$ ,  $u = 3215.5$ ,  $z = -8.0410$ ). Hypothesis 13 was therefore accepted.

Hypothesis 14 stated that renters and purchasers of video recorders would differ on their opinion leadership characteristics, although it was not predicted in which direction this would be.

A Mann-Whitney test found no significant difference and Hypothesis 14 is rejected. ( $p = 0.6495$ ,  $u = 797$ ,  $z = -0.4544$ )

#### Intercorrelations

The intercorrelation with other variables was again tested in accordance with Hypothesis 15a which stated that opinion leadership would be positively related to generalised self confidence, Hypothesis 15b that it was positively related with specific self confidence, and Hypothesis 16a which said it would be positively related to knowledge and Hypothesis 16b, that it would be positively related with experience.

A correlation of 0.6 was achieved for the correlation of opinion leadership with self confidence, experience and knowledge, ( $p < 0.001$ ) but the correlation with esteem dropped to 0.15 ( $p = 0.007$ ) as shown in Table 6.13.

Table 6.13 Correlation of opinion leader with self confidence, experience, knowledge and esteem

	self confidence	experience	knowledge	esteem
opinion leadership	0.5974*	0.5581*	0.6061*	0.1509**

Base:All respondents

\*  $p < 0.001$

\*\* $p = 0.007$

Hypothesis 15a stated opinion leadership would be related to esteem but this was only found with a 0.15 correlation, although this was significant at the 0.007 level. While the hypothesis may be accepted the level of association is so low as to suggest it is of low practical importance.

The correlation of 0.6 for the other three measures means we can also accept Hypothesis 15b, 16a, and 16b.

It is possible, indeed even likely, that the act of ownership has led to the video respondents becoming opinion leaders, rather than them obtaining video recorders because they were opinion leaders. (This is a recognised way of creating opinion leaders who are then used in later stages of the product life cycle.) This view is supported by the lack of significant difference between renters and purchasers of video recorders in that both modes of acquisition would give the necessary expertise and knowledge whereas differences before acquisition would have been likely to lead to a preference for one of the two methods of acquisition.

The moderate to good correlations between opinion leadership and knowledge, experience and specific self confidence are in line

with our expectations as these are necessary preconditions to becoming an opinion leader. The low correlation with self esteem suggests that personality feelings of self worth are less important than specific perceptions of knowledge, experience and ability to judge a product in identifying opinion leaders, although a more complex causal relationship may exist which could be discovered by more sophisticated statistical analysis.

It should be remembered however that while opinion leaders are an important source of Word Of Mouth (WOM) communication only 23% of video people had this characteristic compared to 5% of non video people. Thus the majority of video people do not seem to talk about their acquisition.

#### **Risk perception**

It was expected that buying a video recorder would be seen as a risky thing to do but that video owners would consider it less risky than non video owners.

Hypothesis 18 stated that perception of risk will be high, but Hypothesis 19 stated it would be lower in video owners than non owners. This was studied in table 6.15.

Two measures of risk were used and it was expected that these would have a high correlation. (Hypothesis 17)

To allow for ease of comparison the risksum measure has been recoded from the 120 point scale into a six point scale, while



the risk measure is still the usual five point scale, with 1 indicating low risk perception.

The correlation between the two measures of risk was taken first to see if comparison on both measures was necessary. As Table 6.14 shows a correlation of 0.46 exists which is low for two measures which are seen as interchangeable, and we must reject hypothesis 17. Further analysis will use both measures of risk where appropriate.

Table 6.14 Pearson correlation of the two measures of Risk perception, the composite Risksum and the single measure Risk

	risk
risksum	0.4570*

Base:All respondents \*p=<0.001

Risk level

The relevant data relating to hypotheses 18 and 19 is given below in Table 6.15. It can be seen that after recoding risksum 97% of video respondents fell below the mid point (which could be argued to be medium risk) as did 96% of non video respondents, with 50% and 33% respectively obtaining the lowest scale score of not at all risky.

A similar pattern was found on the 5 point single measure risk scale where 47% of video respondents and 27% of non video respondents said buying a video was not at all risky. The data is

thus heavily skewed to the left, with the majority of respondents perceiving little or no risk.

Table 6.15 Perception of Risk by video owners and non video owners, using the two measures of Risk\*

	Risksum		Risk	
	video owners %	non video owners %	video owners %	non video owners %
1	50	34	47	27
2	40	44	28	31
3	12	18	17	29
4	3	8	4	7
5	0	1	5	6
6	0	1		

\* Risksum is scored 1=no risk, 6=high risk: Risk is scored 1=no risk, 5=high risk  
Base:All respondents

Hypothesis 18 that buying a video would be seen as a risky act was not therefore upheld.

Hypothesis 19 stated that video owners would have a lower risk perception than non video owners and this would appear to be the case. The normal test of significance was carried out and this was found to be true at the 0.02 level for the risksum measure and 0.001 level for the risk measure, (Risksum,  $p=0.02, u=5608, z=-2.3263$ : Risk  $p=0.001, u=5942.5, z=-3.2005$ )

Hypothesis 19 was therefore accepted.

Hypothesis 20 suggests that purchasers would perceive a lower level of risk than renters of video recorders. This was again

investigated using a Mann-Whitney test. The hypothesis was supported using the composite Risksum measure ( $p=0.029$ ,  $u=532.5$ ,  $z=-2.1732$ ) but the difference was not found to be significant using the single measure of risk, although it was in the direction predicted. ( $p=0.541$ ,  $u=784$ ,  $z=-0.6107$ )

We can therefore accept the hypothesis that renters perceive more risk than purchasers but the difference is not as large as expected.

The low 0.45 correlation of Risksum and Risk is cause for concern as one would expect a correlation of approximately 0.9 in a test of this nature. It is impossible to suggest which, if either, is the "correct" measure although one would expect the more complex risksum measure to discriminate more and measure the dimensions of the concept better. Using the single measure for simplicity sake may be justified as long as comparison is made with similar measures for the purpose of comparison and interpretation.

Contrary to expectations buying a video was not seen as a risky act. For an expensive, technologically advanced machine in the early stages of its life cycle this is a surprising finding. While this stage of the study cannot give further guidance on this point it is possible that respondents are putting their trust in the store, brand name or price as indicators of reliability and quality. Similarly guarantees and improved consumer rights may be the explanation. These are possible risk relievers but even so one would expect perception of risk. The

reasons for this lack of risk perception, which is likely to lead to low search and have other implications on decision making, will be considered in the second stage of this study.

As predicted there was a difference between the groups with non video people perceiving higher risk. The risksum measure with its 6 point scale showed less difference between the groups than the 5 point scale measure, however the heavy skew to the left means the scale cannot discriminate very well between the groups. Future research in this area should therefore change the scale to allow for this if greater discrimination is required. If the difference had been greater one might have been justified in arguing that risk relieving strategies should be followed by manufacturers and retailers, such as stressing reliability, after sales service, and the option to return the product with no liability if dissatisfied. However with the risk perception being as low as it is other strategies might have greater effect.

The difference between renters and purchasers was significant on one measure suggesting that renting may have been seen as a risk reduction strategy. With the growth of maintenance contracts taken out at the time of purchase this may become of less importance as retailers extend one of the major benefits of renting to purchase.

## Dimensions of Risk

The composite Risksum measure was created by summing 5 risk dimensions. To investigate further the significant difference which exists between the video and non video respondents perception of risk a further analysis was conducted of the individual dimensions. Each dimension consists of an uncertainty component and a consequences component, both measured on 5 point scales, giving a lowest possible score of 1 and a highest possible score of 25 on each dimension. For the purposes of clarity the raw data has been reduced into a five point scale in the following Tables.

### Dimension 1 Financial Risk

Financial risk relates to the risk of losing money on a video recorder because of it needing repairs and high maintenance costs. The data shown in Table 6.16 suggest that, bearing in mind the generally low level of risk perception, that financial risk is an important dimension of risk for both video and non video respondents, as it gains the highest mean score of 10.7 and 12.3, (on the original 25 point scale) with a mode of 6 for the video owners and 15 for the non video owners.(std dev 7.3 and 7.7). The video owners are skewed in their distribution and perceive a low level of risk while non video owners are closer to a normal distribution, and perceive more risk.

Table 6.16 Perception of Financial risk by ownership

	Video owners %	Non video owners %
1	30	22
2	31	26
3	16	26
4	12	14
5	12	13

Base:All respondents

\*(1=no risk, 5=high risk)

This dimension would be expected to be of importance because of the high capital outlay required (which would increase the consequences element of risk perception), but it is perhaps surprising that it is not of greater importance than our results suggest.

As predicted the non video respondents perceived a higher level of risk, (as can be seen from comparing the mean and mode), and a Mann-Whitney test found this difference significant at the 0.05 level using a one tailed test, (as direction was predicted). (p=0.0369, u=5902.5, z=-1.7879).

It could be that cognitive dissonance has resulted in the video owners reducing their risk perception, or experience has lead them to realise previous fears were unfounded. If this perception of financial risk has any causative relationship with non ownership then manufacturers must find some way of reducing the potential owners (non video) perceptions of risk. This might be done by short term rental contracts, generous maintenance and service contracts, or by reducing the uncertainty of the purchase by providing knowledge of its reliability.

## Dimension 2 Social Risk

Social risk relates to whether the respondent thought friends and colleagues would think a video recorder wasn't right for him or was unsuitable.

As can be seen the data is heavily skewed, with an extremely peaked distribution, especially for the video owners. A low level of risk was perceived on this dimension, with non video respondents again perceiving a higher level of risk. When tested for significance by the Mann-Whitney test it was however not significant. ( $p=0.1134$ ,  $u=6119.5$ ,  $z=-1.5829$ )

Table 6.17 Perception of Social risk by ownership

	video owners %	non video owners %
1	89	82
2	9	12
3	1	5
4	0	1
5	1	1

Base All respondents

With a mean of 2.5 and 3.1, a mode of 1 for both groups and std. dev. of 3.6 and 3.9 it would seem that no social stigma is attached to video ownership. The lack of significant difference between the two groups on this measure suggests it does not relate to ownership, although the lack of discriminatory power of the measure because of the distribution should be borne in mind.

### Dimension 3 Psychological Risk

Psychological risk relates to whether a video recorder would fit in with a respondent's self image or the way he thought about himself.

This was perceived as a low level of risk with a mean of 2.4 and 5.0, a mode of 1 for both groups and a standard deviation of 3.6 and 6.8., with non video respondents again perceiving a higher level than video respondents. When tested this difference was found to be significant. ( $p < 0.001$ ,  $u = 5137$ ,  $z = -3.5632$ )

Table 6.18 Perception of Psychological Risk by ownership

	Video owners %	Non video owners %
1	90	74
2	8	11
3	0	5
4	1	2
5	1	7

Base: All respondents

The measure is again extremely heavily skewed and this measure has a lack of discriminatory power and a different measure, or a different scale, must be used if further insights are required. It would seem however that the psychological dimension is of potential importance to potential owners and does discriminate owners from non owners. This may relate to the residual guilt feelings we uncovered in the open ended questions earlier discussed.



#### Dimension 4 Performance Risk

Performance risk relates to whether the product would not perform as expected. This was found to be the second most important dimension with a mean of 8.1 and 8.6 and again a mode of 1 for both groups. The standard deviation was 6.1 and 6.2. The non video respondents again perceiving a higher level of this sort of risk but this was not found to be statistically significant. ( $p=0.5747$ ,  $u=6562.5$ ,  $z=-0.5611$ )

Table 6.19 Perception of Performance Risk by ownership

	Video owners	Non video owners
	%	%
1	41	43
2	36	30
3	15	17
4	3	6
5	5	5

Base:All respondents

Again the data is heavily skewed towards perceiving no risk, (note the mode of 1), but performance worries do seem to be of relatively general concern. This could be due to the financial implications or simply because of lack of experience in using a product such as this. The benefits of the product should be stressed showing how video recorders easily reach the required performance levels, (whatever they might be).

## Dimension 5 Physical Risk

Physical risk relates to the perception that the product might be unsafe or a danger to use. This was the third most important dimension with a mean of 4.7 and 4.6, a mode of 5 and a standard deviation of 4.1. On this dimension non video respondents perceived a slightly lower level of risk but this was not found to be statistically significant. ( $p=0.6867$ ,  $u=6655$ ,  $z=-0.4033$ )

Table 6.20 Perception of Physical Risk by ownership

	Video owners %	Non video owners %
1	80	81
2	17	13
3	11	4
4	1	0
5	1	2

Base:All respondents

Potential dangers are getting fingers trapped inside the machine when inserting videos, electrocution, etc and it is possible that respondents included viewing unsuitable videos as a danger. This would have to be explored with other research methods rather than a simple question such as this.

### Summary

When analysing the individual risk dimensions it should be remembered that the total level of risk perceived was very low. However when the separate dimensions were analysed it was found that two dimensions explained the difference between groups earlier noted. These were financial risk and psychological risk.

Financial risk was the more important dimension when measured by the mean score, with psychological risk being one of the least important dimensions. This may relate to the earlier finding when respondents were asked about their beliefs regarding video recorder owners and a large number of comments related to perceptions of wealth/cash and personality/lifestyle, with differences between the groups.

Thus, while risk is likely to be of low importance in influencing behaviour, it may be worth considering messages concerning the financial and image elements of video recorder ownership.

#### Inter relationships

We suggested in Hypothesis 21 that risk would be negatively related to specific self confidence. Also, Hypothesis 22 that risk perception would be negatively related to generalised self confidence.

Hypothesis 21 was tested by correlation and the hypothesis was not supported for either measure of risk. While the direction of correlation was negative as expected the degree of correlation was insignificant at  $-0.09$  for the composite measure and  $-0.11$  for the single measure. ( $p=0.08$  and  $p=0.03$ ). Hypothesis 21 was therefore rejected.

Table 6.21 Correlation of Risksum and Risk, with selfconfidence, experience, knowledge and esteem

	self confidence	experience	knowledge	self esteem
risksum	-0.0873 p=0.83	-0.1038 p=0.050	-0.1324 p=0.018	-0.1889 p=0.001
risk	-0.1120 p=0.033	-0.0929 p=0.064	-0.1265 p=0.019	-0.0903 p=0.072

Base:All respondents

Hypothesis 22 was that Risk would be negatively related to self esteem, and as can be seen from Table 6.21 this was true for the risk sum measure but not the risk measure. The level of correlation was again very low at -0.19 for the risk sum measure and -0.09 for the single risk measure.(p=0.001 and p=0.072)

We further hypothesised that Risk perception should decrease as knowledge and experience increased (Hypothesis 23 and Hypothesis 24) and this was tested. A low correlation of -0.10 (p=0.05) was found for experience on the risksum measure and -0.09 (p=0.06) on the single measure. A similar low correlation was found for knowledge of -0.13 (p=0.02) and -0.12 (p=0.02).

The level of correlation is much lower than expected and the hypotheses are rejected.

The low relationship between risk and specific self confidence is surprising considering Cox and Rich's belief (1964) that uncertainty is the opposite of specific self confidence. In other

situations correlations of risk with other variables, as discussed in chapter four, while low have improved for higher levels of risk. Thus the low self confidence and low risk perception may have reduced the normal relationship, and this is likely to be further reduced by the lack of discrimination of our scales caused by the strong skew to the left.

As experience and knowledge about a product grows risk perception is meant to decrease, leading to our hypothesis. While this relationship may hold for high risk where search behaviour is a risk reliever it does not seem to be the case in low risk situations.

Self esteem has the highest correlation with risk but this only reaches  $-0.18$  for the composite measure of risk. (Possibly because of the inclusion of the psychological dimension.)

It would seem therefore that in this situation the interrelationships between these variables are of little importance. If this is the case then the cognitive argument that ambiguity and uncertainty can be reduced by increasing comprehension and knowledge is significantly weakened. It is possible that cognitive processes do not mediate risk perception although this position is difficult to support. It is more likely that the highly skewed results on the measures used distorted any correlations, or that for this decision the cognitive processes were not in operation. If the latter is the case then a low involvement model might be closer to the actual decision process in this instance.

## Social Normative Influences

It was thought necessary to investigate the degree to which others were involved in the decision process to allow us to consider the influence these people may have had in the information collection or evaluation stage, as discussed earlier in chapter 4.

Hypothesis 25 states that personal influence will play an important role in the decision process.

Table 6.22 gives the finding to the filter question asking whether there was, or would be, any involvement by other people.

Table 6.22 Respondents stating that others were/would be involved in purchase decision

	Video owners	Non video owners
yes	71%	73%
no	29%	27%

Base:All respondents

It can be seen that the majority of respondents thought there would be, or had been involvement with others in the decision and the Hypothesis is accepted.

Respondents who answered yes were then asked to state who was involved from a choice of five individuals and rate them from involved a great deal to not involved at all on a five point scale. (The distribution was bi-modal at the end points except

for friend which was approximately equal proportions.)

Table 6.23 Frequency of mention of people involved in decision

		%
wife	75	33
husband	51	23
child	45	20
relative	24	11
friend	34	15
	<hr/>	
	224	100

Base:n=199

It should be remembered that the husband/wife category should be mutually exclusive and thus 56% of respondents claimed their spouse would be involved in the decision. Children were also important (mentioned by 20% of respondents) followed by friend (15%) and relatives (11%). No figures are available regarding the marital status of respondents or the existence of children thus these figures may be misleading.

### Conclusion

We have therefore found that there are significant differences between those people who have videos and those who have not. In particular they seem to have different cognitive beliefs about video recorders and about the sort of person who has a video recorder. Video respondents have higher self confidence, more experience, greater knowledge, are higher in opinion leadership, and perceive less risk. They do not differ in self esteem. While non video people have low knowledge, experience and self

confidence they also do not consider videos as a risky purchase suggesting they may not be inclined to increase their standing on these variables. Despite the low risk most respondents felt they would involve others in the decision to acquire a video.

When investigating differences between those who rented their video recorders and those who bought no significant differences were found.

This may be in part due to the low degree of difference found between the previous two groups on the variables measured but is a surprising finding. To investigate this further it might be necessary to question respondents at the point of decision to buy or rent, rather than a few weeks later as in this case. It is possible that the experience of usage resulted in a common learning process which changed respondents standing on these variables. It does show however that, as there are no difference between renters and buyers on these variables, that if a retailer or manufacturer wants to change the mode of ownership then these variables would not seem to be relevant aspects to include in a marketing strategy.

This chapter thus raises as many questions as it resolves and many of the areas are in need of deeper analysis. This is the function and purpose of the next chapter which adopts a qualitative approach to analyse the decision process and relevant influences upon it.



CHAPTER SEVEN  
QUALITATIVE FINDINGS

This chapter analyses the focused interviews conducted into the decision to obtain a video recorder. We shall therefore investigate the various areas discussed in Chapter 3 regarding the nature of the decision process, and also whether the respondents perceived any environmental, situational or individual factors which influenced the decision process.

The structure of the chapter will follow that of the interview guide, (see Appendix) which itself was based on the conceptual analysis contained in Chapter 3 and 4.

Problem Recognition is the first area of interest. We shall consider the period of time between awareness, problem recognition and purchase and the nature of the deliberation taking place during this period. We shall also discuss the factors delaying, enabling or precipitating the decision process and the role of motives.

Problem Classification relates to the amount of knowledge and experience prior to shopping, the perceived difficulty of the decision and the perceived risk. In this section we shall also consider the difference between the decision to buy as compared

to renting a video recorder and the respondents perceptions of the two alternative modes of acquisition.

The next section considers the nature of Search Behaviour. The role of incidental and experiential learning will be considered in relationship to Aguila's continuum of search. The depth and breadth of search and the respondents preferences for information sources during the decision process will also be considered.

The final section will consider the process of evaluation. We shall consider the evidence for our model which suggested a three step process of Awareness Set, Consideration Set, and a Choice Set, and the size of the evoked sets. The nature of the decision rules used in the choice process will be considered and whether these are satisficing or optimising rules. Finally the criteria used in the decision process will be discussed and the importance of product, company or market considerations noted.

#### PROBLEM RECOGNITION

We predicted that Search Behaviour is a function of the nature of the problem and thus Problem Knowledge (PK) and the problem classification is an important stage of the decision process.

The nature of Problem Recognition was discussed in Chapter 3 when we pointed out that it related to a hierarchy of motivational goals, and that a distinction can be made between simple awareness, interest and problem recognition. In Chapter 4 we also

showed the relationship of enabling conditions and precipitating factors to Problem Recognition and we showed how certain environmental or market factors might effect the decision. Situational factors such as time constraints, social pressure and task definition may also have an effect on how the problem is perceived.

We shall begin our investigation of Problem Recognition by a consideration of when the 'problem' was perceived.

### **Problem Perception**

The period of time between a need being identified and the need being satisfied is likely to be related to both the amount and type of deliberation and the amount and type of search behaviour, as discussed in Chapter 3.

Respondents were therefore asked when they first started thinking about getting a video recorder, or first decided they would like one, and when they actually started shopping and gathering information for a video.

Usually this distinction came out naturally during the discussion and respondents had no difficulty seperating the 'premarket' period when they were interested generally in the benefits of video recorders, from the market search time when they 'shifted gear' into a more focused consideration of the problem.

In some situations the need time and shopping time were

identical. In these cases recognition of a need resulted in immediate action to resolve the problem but this was seldom the case. In these cases knowledge existed about the video but the possibility of obtaining a video was previously rejected, due to lack of finance or a low rating of the benefits.

In one such case the respondent, who was interested in films, states how this came about;

"I'm very into Italian films, and there's an Italian director...he had done a series of eight films, the films were very difficult to obtain, and I was wandering up Byres Road and noticed they had them on cassette- for rental- so I immediately decided I was going to rent a recorder."

Question. Had you considered getting a video before then?

"No, I wasn't remotely interested because I had it in my mind that all they were for was recording television programmes and watching blue movies and I wasn't really interested in either of those applications."

ABC Rented

A reevaluation of the situation was therefore brought about by new information which showed the falsity of previous beliefs. The respondent then spent the next ten days gathering information on rental.

In most situations the period of time spent in search was considerably shorter than the premarket search stage, (the period from recognition of need to the beginning of market search.)

The premarket period varied from a few weeks to a few years, but

most respondents were under 12 months.

"I knew from the first time I saw one, perhaps six years ago, that I would have one one day."

Respondents were naturally vague as to when they actually decided they were interested, but were normally clearer as to when they actually started considering videos, this period generally varying from 1 day to three months. While there was no obvious difference between renters and buyers in the need time (premarket period), the shopping time did reflect a difference.

The majority of buyers took between 3 weeks and 2 months to look around, with only a quarter taking less than this. With the renters half of them only took 1 day choosing the video. As will be shown later this difference was due to a number of factors relating to their perception of the problem and the nature of their search behaviour.

The shopping time is the period when they first actively looked with a view to obtaining a video, but formal search was not necessarily taking place all this time. There were periods of 'consolidation' when no further information was acquired and nothing was done to continue the decision. This will be considered further under deliberation and search behaviour.

Thus Problem Recognition would best be defined as the period when a decision was taken to resolve the problem. Prior to this awareness and interest were being created but no 'problem'

perceived and therefore no motivation existed which resulted in no cognitive or behavioural effort.

### Deliberation

The time spent from the initial arousal of interest in the product to actual purchase or rental is a proxy indicator of the amount of deliberation which took place, in the same way that one would expect time and search effort to be related. However it is only a rough and ready indicator. Some people spent a long time from initial need recognition to purchase but did little in depth deliberation or formal search. Others were very thorough within a short period of time.

Some respondents were obviously very thorough in their approach.

"It was first talked about before we actually got it but we were advised to put it off for a while because they kept saying 'Oh, there's a newer model coming out' and things like that and then we were advised along the same lines to rent it instead of buying it as new models would come out and if we bought one we'd be stuck with it whereas if we rented we could change it. It was talked about for a long time before we actually went and bought it."  
ABC Bought

"It was quite a long conscious decision, maybe about a year or more" CDE Bought

"I'm pretty careful with money, or I like to think I am...Normally if you buy the first thing you see, after about a week you think 'why did I get that? I could have got a better one.' Like cars and everything else. You've got to shop around."  
CDE Bought

"I dont just go to the one shop. I go about and

compare the units and even compare the prices." ABC Rented

"I never decide what I want until I've seen what's available" ABC Rented

"I like to see what I am getting, I dont like to go into one shop and see a selection of six models and get the sales talk. I like to look around and see exactly what is on the market. Appearance, price, technical things come into it, but nothing in particular." ABC Rented

"We had talked about it for a long time." CDE Rented

Some renters gave the fact of renting as a justification for not taking more care.

"If I was going to buy something I would have to really think about it, but I couldn't be bothered." ABC Rented

"When you're into the realms of buying you're going to get an awful lot more involved." ABC Rented

"If it's rented we're not so thorough because its 6 months rented and if we dont like it back it goes." ABC Rented

"There wasn't any thought in it at all. Things you rent aren't worth the effort." CDE Rented

At the other end of the spectrum from deliberation, some respondents claimed it was purely an impulse with virtually no deliberation.

"It was an impulse purchase." ABC Bought

"I hadn't even considered getting one." ABC Bought

"We got it off a guy who was looking for money, so we just gave him the money for it and that was it.

"We thought about it for all of ten minutes." CDE Bought

"An impulse, totally an impulse. I went in to hire a television and discovered the televisions were reasonably cheap... and we just took the video as well." ABC Rental

"I said to him 'It's a pity you don't do video's- he says we do. I says can I have one and he was out the next day. He asked me a few questions and I gave him one month's deposit." CDE Rental

"Never actually thought about it, it was a snap decision." CDE Rental

In Chapter Two we quoted the work of Hawkins who suggested that impulse buying is too general a term and argues that there are four categories; Pure Impulse, Reminder Impulse, Suggestion Impulse, and Planned Impulse.

The Suggestion Impulse did not seem to operate in this situation as all respondents "knew about" video recorders before seeing them in the shops, invalidating this category.

In Pure Impulse, a spur of the moment novelty decision occurs with no reliance on past knowledge or attitudes. The purchase is essentially a 'fun' purchase. This was the case with one respondent who admitted he had run out of things to spend his money on, but most of the impulse purchasers had considered a



video recorder prior to purchase.

Reminder Impulse is when the product is presented and reminds the buyer of his desire for it. This suggests the product would have been bought at some time, but that a display or other stimuli happened to catch their attention and stimulate purchase. This happened but was difficult to separate from the end of a casual deliberation process.

"We spoke about it from time to time and just decided." ABC Bought

"We reached the point where we agreed to go out and buy the thing. 'Let's go and buy it and be done with it.'" ABC Bought

"I'd thought about it but when we bought it it was an impulse." CDE Bought

"Impulse on my part even though it had been there a while, suddenly it came to the fore and I made the decision to get it." CDE Rented

One respondent claimed;

"Did it on the spur of the moment. Didn't even think of the cost, just did it."

but also admitted;

"I always knew I was going to get one as soon as I got the flat." ABC Rented

Another said;

"It was all very much spur of the moment. I first heard about it and then ten days later I thought, 'Damn, I'm going to do it' and the following day I did." CDE Rented

But again the comment hides a limited consideration of 3

different outlets and a number of different sets, and advice from friends.

Thus, a number of people who may initially be classified as impulse, and who would categorise their own decision as impulse, should not be so categorised.

In Hawkins fourth category Planned Impulse, the contradiction becomes more obvious. Here a change in price in the market place leads to a decision to buy. Thus if previously a product has been perceived as too expensive and the decision process put on 'hold', then a major reduction in price can lead to immediate purchase if this was the only constraining factor. This happened in some cases with reconditioned or second hand machines when a half price offer brought immediate action, as in the following situation when a half price model was seen.

"I walked past the shop and thought 'I'm seeing things'. I came back and told him and he started laughing." CDE Bought

In these cases there were normally no alternative models and this helped create the impression of no deliberation. In very few situations did no deliberation take place prior to purchase, although it is true that the deliberation was often casual and informal. In most cases some form of premarket search had taken place which had prepared the respondent for action. This prior consideration had however often lead the respondent to consider further search or deliberation was not necessary, as the machines were all the same, especially if the range considered

was limited to the more basic machines.

"We just knew we wanted the basic...We'd discussed price etc. but we hadn't sat down and had a long discussion about it, just mentioned in passing." ABC Bought

"Well, we just really wanted something to play...I said, 'So what difference does it make?' ABC Bought

There was evidence that after a certain amount of deliberation respondents did not feel any more effort was justified, although they may not have completed their market search.

"It started at work. One Saturday you were going down via Radio Rentals and DER and you were looking at them and your mind was starting to plot out what it would work out at a week. No bad really if the three of us go into it. So we sat down and talked about it. Funnily enough the boys hummed and hawed to begin with. Then the young one and I just went down on the Saturday. I didn't actually go down to do it, I just passed the shop and I says, 'Oh to hell, come on in and we'll get a video`I went in and that was it.'" CDE Rental

"I was leaving the office at 5 o'clock and seeing what I could get before half past, and nobody's wanting to help you at that time of night. So I was sort of looking in shop windows- I dont think I even asked anyone in Clydesdale; Nobody approached me. Nobody wants to approach you at 5 o'clock. I think I actually went back to Multi-Broadcast the following day to say 'O.K. I'll just take it' because I think I'd said I'd see but I didn't know. I couldn't be bothered looking anywhere else. It was a wet day and it was about 10 minutes to closing time and I thought 'Och, I'll just take it'. Because they said 'I'll have it for you tomorrow' and I was doing something that night and I thought 'Fine'". CDE Rented

"I felt I'd seen them all. I probably hadn't but I

was getting a wee bit fed up." CDE Bought

One aspect of deliberation is the split between deliberating over whether to get a video and the decision over which video to get.

"With the video it took time to convince myself that I really did want to buy at all." ABC Bought

Question. Was it an impulse?

"Hardly at all. When we went to the shop we knew we were going to get it. It was an impulse buying that machine out of the whole lot, we didn't go out and research all the different machines, but it was not an impulse to buy a video." ABC Bought

The casual nature of the deliberation did not conform to the cognitive and behavioural effort expected from a High Involvement, Extended Problem Solving situation and in discussing the decision process they had been through respondents did not give the impression they considered the choice worthy of extended thought or deliberation. Very few respondents could clearly explain why they had obtained the model they had, or how they had gone about making the decision. The use of information sources and evaluative criteria will be discussed later but at this point it is necessary to say that respondents did not consider a video recorder an item of major importance to them, despite the price. This was often because it was seen as a luxury and not an essential part of their life.

"I think video isn't looked upon in the same way (as furniture or appliances) because its more of a fun thing, a social thing than an appliance. Probably because it is not a necessity....You work with those things, you dont enjoy them." CDE Rental

They had involvement with a washing machine as a breakdown would disrupt family life and cause major inconvenience, but a video had not become such an essential item, although a television had.

"At the moment it is probably a luxury, but luxuries gradually drift into a category whereby they become an essential part of your life" CDE Rental

The risk was perceived as low, but mainly as preventive measures had been taken to reduce the risk. Both renters and Purchasers agreed there was a problem with reliability (i.e. high risk) but by taking out a five year warrantee or renting the consequences of this unreliability had been negated.

We therefore have a situation where a major part of the deliberation period is taken up with considering in a casual way whether to have a video recorder or not, followed by a limited casual consideration of alternative brands. Knowledge of market conditions is low but sufficient to satisfy the respondents need to understand the benefits of the product class and the major aspects of concern. The product class is sufficiently into its life cycle for a number of their peers to have the product and, as will be shown, personal influence is rife, and product involvement and risk perception is low. This seems to suggest a purchase decision which should be classified as limited problem solving rather than extended.

With regard to identifying the onset of Problem Recognition, the major problem, which was often resolved with no obvious search, was whether to buy a video recorder at all. Deliberation (i.e. cognitive effort) was taking place at this stage suggesting a two stage problem with a 'Go- No Go' decision to be made. The first problem recognised was whether to obtain a video recorder. This decision was normally resolved without market search. If the decision was positive then the next problem recognised was which video to have. This was resolved in a different manner with different criteria and search patterns. The nature of the deliberation on the first decision often influenced the nature of the search process which followed, as well as the criteria used. This will become clearer in later sections.

#### Delaying Factors

The respondents were generally asked why they had not considered getting a video earlier, or why they had delayed getting one. The response could generally be categorised as;

- lack of finance
- cost/benefits negative, lack of need
- low on priorities
- risk of repair etc.

The lack of finance was a major factor delaying acquisition;

"I always wanted a video but thought it was a luxury I couldn't afford." ABC Bought

"Probably moneywise. Most things are governed by when you can afford to get them." ABC Rented

"I couldn't afford it... We kept talking about it but the price put us off." CDE Bought

"I wanted one for a year right enough, but I found them very expensive." CDE Bought

"I was looking at the price and I thought I don't think I'll bother. I thought I'd save up some money." CDE Bought

"We had been thinking about it for a wee while, economics as much as anything. They are not cheap to rent or buy...allied to the cost of hiring films." CDE Rented

Lack of finance to buy was sometimes a reason for renting;

"I wouldn't have bought as no money." ABC Rented

"We couldn't afford to buy." ABC Rental

Apart from the actual worry over the ability to afford the video, respondents also worried whether it was worth it, whether they would get enough use out of it.

"Thought it was too dear for what you were getting and for how often you would use it." CDE Bought

"I didn't want to get one if I didn't think I was actually going to use it, so I had to think about it very seriously and ask how much other fellas in work were getting from their video. No point in having a thing if it was just going to sit there and be a status symbol." CDE Bought

"Expensive form of entertainment. We weren't sure we'd get our money's worth out of it." ABC Bought

"Partly finance- more importantly I never saw them as being a great advantage as I am not a film buff... I never considered it value for money to record those programmes I like best, sport." ABC Bought

"We had thought about it before, but I said no, we didn't need it, it wasn't necessary." CDE Rental

"I didn't want one as I was quite sure we would get rid of it in 6 months." ABC Rental

It was clear that some respondents had a priority of goods they wanted to acquire, as argued by a number of economists.

"It was one of those things we would have liked but did not consider essential...It was just one of those things that would come one day." CDE Rental

"Over the past 2-3 years we felt it was a luxury and it wasn't necessarily an essential part of your life. We felt it was something we could possibly consider in the future...We both felt at that time it was a bit of a luxury and we weren't ready for it in that respect." CDE Rental

"I had it in the back of my mind for about three months. I quite fancied getting one and I am one of those people that if I decide to do something I go at it for a couple of months until I finally do it. It came up on my list of priorities - I had run out of things to spend my money on or things to do." ABC Rented

"Never got round to doing it. I always had something better to do with my money." CDE Bought

"It was just a build up. I knew I wanted one but I had priorities. Eventually it became number 1 priority." CDE Rental



"When I decided I wanted to buy the family something special for Xmas - the children had already got their own stereo and and even t.v. - a video seemed to be the obvious choice." ABC Bought

Sometimes respondents delayed because of their belief that the market would change, that prices would come down or video recorders improve. This is an element discussed further in the consideration of renting versus buying.

"I'm not sure about buying something when they first come out on the market. I never dreamt about buying one when they first came out...I wanted to wait til they became common in the shops." ABC Bought

"We've always been against getting one because of advice. We thought the price would drop a lot." CDE Bought

"I suppose one of the reasons I didn't get one straight away, when the things came out...I wouldn't consider buying one for a couple of years because the price will drop." CDE Rental

"Same as all new products really. Dont know if anything is going to go wrong with them or what they are like. It was all about watching the results of my mates really. And we eventually decided we should have one." ABC Rental

Sometimes other conflicts had to be resolved, such as convincing other members of the family, resolving worries over use, or the danger of burglaries.

"Just a matter of convincing my dad. Matter of time and getting the money together...He just broke under the pressure." ABC Bought

"My husband didn't want one at all and I just decided that I would be paying for it so I would get it, as I work anyway." CDE Rental

"We'd talked about it as a family... but I took the view we had enough problems choosing between 4 channels." ABC Bought

"I was always against them - I was never in favour of getting one because I feel the children see far too much television and I felt no need for one. It was only around Xmas I finally got swayed." CDE Bought

"I was against it initially, I thought the little lad would probably get enough t.v." CDE Bought

"We'd thought about buying a video and then heard so much about things that can go wrong, that its expensive to repair them, that we thought 'Oh, to heck, who needs a video?" ABC Rental

"The reason I didn't want one was because a big percentage of people with videos were getting broken into." CDE Rental

These delaying factors seem to be in operation after the onset of Problem Recognition. The video would have been obtained if the respondents had not perceived that the benefits of the purchase did not outweigh the costs. Thus a simple constraint of lack of cash, a low estimate of the benefits of the video, or a belief that other factors must first change will place the decision on hold, although an initial decision has taken place.

#### Enabling Conditions

The removal of a delaying factor can also be seen as an enabling condition. Similarly a precipitating circumstance was often a special offer that removed a constraint which had previously delayed continuation of the decision process. In most situations

however there was no one factor which could be identified as stimulating the change from general need to active consideration.

"Well, before it wasn't thought necessary at all...No great reason that we didn't get one before - just sort of a sudden urge." ABC Bought

Other factors identified were an easing of the financial situation, through money being left them in a will, getting a pay rise, stopping smoking and having spare cash.

#### Precipitating Circumstance

A precipitating circumstance was sometimes a sudden removal of a delaying factor, such as a major price cut, or a change in life style resulting in a reevaluation of the benefits to be obtained, or some other circumstance. This links to the motives in acquiring a video. In some circumstances the respondent had recognised his need but had not progressed the decision further, in other situations the precipitating circumstance actually prompted Problem Recognition.

A major reduction in price was an important precipitating circumstance for about a third of the CDE Buyers but it was not of importance to the other groups. In total 9 respondents mentioned it as being of importance.

"We just decided on the spur of the moment when we were offered this (at half price)." CDE Bought

This will be discussed further when criteria are considered, but it should be noted that these are precipitating circumstances, rather than just a factor in the choice between models. The special offer may later become a criterion when choosing amongst alternatives, but at this point it's main function was to prompt progress of the decision.

In the rental group a special offer was sometimes mentioned in a similar way. This was sometimes the removal of the need to pay 6 months or a year's rental in advance, or a special low rental price for reconditioned models.

"I hadn't been into shops pricing them, looking at them. Just a matter of walking into Granada because we have got the television and there was the offer, otherwise we would still not have a video." CDE  
Rental

The approach of Christmas, with its better programmes, busy social life etc. was given as a factor by 5 respondents, although it is possible it heightened the interest of more respondents than this.

A change of accomodation was the stimulus for 4 respondents to obtain a video. With one third of respondents there was no specific stimulus, the acquisition was the result of a slow build up and consideration.

Other than these three predictable precipitating circumstances, major special offer, Christmas and change of accomodation there were no other factors which could not be better considered under

the heading of general motives. This suggests that the ability of marketers to stimulate the onset of the active market search phase of the decision process might be limited as most manufacturers could not afford the magnitude of price cut required to precipitate the process, and may well have difficulty identifying the geographically mobile sector of the market.

The majority of delaying factors were based on a cost benefit analysis which resulted in an unfavourable conclusion. To change this analysis a major change in the offer was needed, or a change in the perception of the benefits offered. This suggests an understanding of attitudinal and motivational aspects of the problem needs to be considered.

#### **Prepurchase Motives**

Problem Recognition has been defined earlier as 'A difficulty is felt', a 'perceived difference between the ideal state of affairs and the actual situation', a 'dissatisfaction with the present level of goal attainment'. These goals, or states of affairs, are commonly referred to as motives and can be simple or complex, integrated with other motives and values or separate, clearly defined and stated or ambiguous and contradictory.

The strength of these motives will determine the amount of cognitive and behavioural effort the individual is willing to expend in the satisfaction of the need, and their relationship to other motives will determine in which order the motives are

satisfied and the criteria which will be considered important when considering the product. It is obviously of no use for a manufacturer to stress a product benefit which the individual does not consider of value.

### Product Benefits

The most obvious motivation to obtain a video recorder related to its ability to record programmes for later viewing, and its ability to play prerecorded films. These two benefits were mentioned by all respondents with differing degrees of emphasis.

The timeshifting facility was important to those who were unable to watch the programmes they wished because of an active social life, being on shift work, or simply because of clash of programmes. The video thus brought advantages of convenience.

"Independance of watching something at own leisure."  
CDE Bought

"To cease the dominance over ones life that television tends to have...allows me a little bit more freedom." ABC Bought

"Laziness - because I like to watch the television programmes but I am not necessarily in." ABC Rented

"Because we fancied having one. The convenience of watching what we wanted to watch, when we wanted to watch it." CDE Rented

"...You can't watch two sides at the same time." CDE Rental

"I was busy and missing all my good programmes." CDE Rental

The hiring of prerecorded video films was a second obvious appeal. This was especially true if the presence of children restricted the respondents ability to get out.

"We felt if we couldn't get out for entertainment we would import some." ABC Bought

"The reason we wanted one was because the wee girl curtailed us going out and it was good to help getting babysitters." ABC Bought

"I thought it was well worth the money from our point of view. With the two kids our night life is restricted. We mainly went to the pictures so now we are kept in and we hire the movies." ABC Bought

"I was so tired of not being able to see the films I wanted to see on the cinema." ABC Rental

"We used to pass the video shops and say that's a good film - if we had a recorder we could play that." ABC Rental

"A lot of the good films we wanted to see and couldn't get out because of the child." CDE Rental

A number of respondents mentioned the economic advantages of hiring a video film rather than paying for the pictures, especially as it could be watched in the comfort of ones own home.

"What really made up our mind was going to the pictures some night and it cost us a fortune to get in. We just decided to get one." ABC Rental

"The sets were fashionable at the time and it was working out an awful lot cheaper than going to the pictures." ABC Rental

"It's cheaper than going to the pictures." ABC Rental

"What's the point of going to the pictures when you can sit in the house and see the same movie. Cheap at the price." CDE Bought

The poor quality of existing television programmes was sometimes mentioned as a reason for obtaining a video.

"The fact that the t.v. programmes seemed to be so bad recently, we thought that getting films or something was a good idea." ABC Bought

"You know people have got them and it seems quite a good idea because you can record things. I was previously a televisionaholic - just watched it all and every night... then I started doubting watching all this television. Why watch all the rubbish so I don't miss the good bits?" ABC Rental

This might be purely an upper class perception as a far greater number cited the large number of good programmes as a problem, as they often clashed. This was likely to be particularly the case at Christmas when an active social life conflicted with what was seen as a surfeit of good programmes.

"Just decided that there were so many things we wanted to see on t.v." CDE Bought

"We got it so we could see the programmes around the Christmas period." ABC Rented

The main reasons given for wanting a video recorder were therefore related to the convenience of watching programmes when



one wanted, no longer having to miss programmes or having to rearrange ones social life, being able to watch films one wanted to see and the general ease and enjoyment of watching with a video recorder.

### Interpersonal Motives

While the above are the benefits given by a video recorder, and their appeal is undoubted, other motivations and influences were also at work. While the above motivations are related to convenience, economy, and entertainment, it was clear that a strong social influence, both of affiliation and status, was operating.

Firstly there was the influence from the children in the household.

"Family pressures. The children were interested and wanted to get one." ABC Bought

"They (the kids) wanted to see videos they had heard about." CDE Bought

"Daughter was desperate to get one...It was a case of they've got one, why can't we?" CDE Rented

"The children had been talking about it for at least 12 months because our neighbours mostly have videos." CDE Rented

The social influence was sometimes attributed to hearing about or seeing the benefits of having a video recorder.

"Had quite a lot of friends that have had them for over two years at work and they had found them quite useful." CDE Bought

"Wives in laws had one. She'd be home during the day and see a video. She'd come home and say have you seen this video and I would say no. She'd come home every night and say I've seen a different picture. I thought about it but I wouldn't have bought it if my brother hadn't been selling his." CDE Bought

"All my friends said it was a good idea. Just fancied one for trying it." ABC Rental

"Hearing other people in the work - they were talking about how marvellous it was. The movies that were on..." CDE Rental

"A lot of people talking about the films they had seen. You start thinking you are missing out on something." CDE Rental

In other situations the affiliation need, the need to be like ones friends came through.

"We're the last of a lot of people we know to get one in our circle of friends." CDE Bought

"Friends had a small influence. They had one. Usually we are around at someones house watching a few films. I thought, well, may as well get one so we can spread it around a bit." ABC Rental

"Our friends had one, we fancied the idea of having one so we went out and got one." CDE Rental

"Quite a few of the neighbours already had them." CDE Rental

It was sometimes difficult to separate the affiliation need from a status motivation, although the existence of such a motivation

was sometimes denied.

"It's like keeping up with the Jones. I suppose that's an influence...seeing our friends with one."  
CDE Bought

"Everyone had one except us...I wanted to get one because everyone else had one but my mum and dad got it because they missed things." CDE Bought

"It was the thing to do then. The same way computers are now I'd say." ABC Rental

"It wasn't a case of keeping up with the Jones but the fact we didn't have this flexibility in our viewing (that they had) was beginning to seep through and influence us." CDE Rented

### Summary

In this section we have discussed the time period from Problem Recognition to Search Behaviour and Choice, the motives prompting individuals to want a video recorder, and the enabling, delaying and precipitating factors which might prompt or constrain decision making.

Problem Recognition clearly takes two forms. The decision to obtain a video recorder, and the decision as to which video recorder to obtain. The first decision took the longest and was most casual in its consideration. The actual need was being considered first, and most of the motives discussed relate to this need. Respondents tended therefore to be more interested in the video tapes available, rather than the differing video recorders. Consumers had to be convinced the VCR was a worthwhile purchase, and this normally occurred by talking to and observing

friends. When the benefits of VCR's outweighed the costs and disadvantages, then the respondents moved on to a more active consideration of the problem. As will be discussed later, their knowledge of the market offerings at this stage varied.

The factors delaying, precipitating or enabling acquisition were generally factors outwith the control of the marketer, except in the most general sense. Lack of finance, or more importantly, the perception of lack of finance, was the obvious delaying factor. The video recorder was not sufficiently high in their heirarchy of purchases to justify the expenditure, it was a luxury rather than a necessity. As the price dropped, as discussions with friends, neighbours and family continued, the choice was normally slowly made that it was time to get a video. A stimulus at this time, such as moving accommodation, Christmas, or a special offer was thus sufficient in some cases to precipitate an action which had previously been decided upon. The major motive justifying the acquisition was the beneficial effects it would have on their lifestyle, mainly in relationship to entertainment and leisure. It was clear that social and affiliation needs played an important role in the decision.

## PROBLEM CLASSIFICATION

In chapter 3 we discussed the theoretical nature of Problem Classification and related it to our search rules (PK + APS + C) which in itself depended upon the information the individual held upon the problem. We stated that the problem recognition classification in itself involved complex comparisons and weightings of needs, motivations, attitudes which will be based upon past experience.

It is important when comparing studies of search behaviour to ensure that similar problems were being solved. The search behaviour when purchasing toothpaste is likely to differ from that when buying a car.

Past studies have categorised problems on a post facto basis, analysing the amount of search or deliberation which takes place and classifying accordingly. While we can do this an attempt was made to investigate other elements which might relate to the perceived difficulty of the purchase problem.

We chose a problem which we expected to require Extended Problem Solving, in that the problem was a new one they had not encountered before, a number of alternatives existed and respondents were likely to be unclear as to the criteria which should be used to judge the alternatives. Thus, according to our model, (PK + APS + C) a formal search procedure should follow when all 3 elements of the decision are unclear.

We therefore attempted to investigate the respondents level of experience or knowledge relating to video recorders, prior to purchase, his perception of the difficulty of the decision facing him, his perception of the risk involved, and how similar this choice was to choosing other similar products to see whether respondents did indeed perceive the decision as requiring Extended Problem Solving.

#### Knowledge and experience prior to shopping

Virtually all respondents claimed little or no knowledge about video recorders prior to shopping.

"Minimal knowledge, but I don't think you need any more. You don't need to know how it works." ABC Rental

"I imagined it would be roughly the same as an ordinary cassette recorder. Fast forward, rewind, that sort of thing. I hadn't thought about it much really." ABC Rental

"I don't suppose I knew that much. I mean I knew how they operated, I knew the going rate for videos. I knew the basic principle of them." CDE Rental

"Not a great deal. I knew what they could do and the functions of them; what they could do, the different days, how to record." CDE Bought

"Very little. I'm not into electrical goods. I don't know what's good and what's bad and I don't appreciate the niceties." ABC Bought

"I know nothing about electronics. Things are always changing in computer world and microchips. So if you wait til things settle down you might never get one." ABC Bought

But this must be considered against a similar claim by most respondents that they knew very little after shopping.

" I just put in a movie, click, bang, and that was us for an hour and a half. I don't suppose I could work the damn thing...I just never took the interest to do it." CDE Rental

Indeed, of those respondents with families, a great many respondents seemed to almost boast that they couldn't understand how to work the recorder and they left all of that to the "wee one"

While respondents in general claimed little knowledge, most had a general idea of the price range, knew of the two major tape formats, and knew of the major functions and benefits of video recorders. Thus while they rated their knowledge as low, in reality their knowledge was only low regarding the different makes, brands and features of videos which would allow them to make a reasoned choice. In our model this knowledge was characterised as knowledge of alternative solutions and criteria for judging (APS + C). Their knowledge of the benefits offered by the product class (Problem Knowledge, PK) was reasonably high.

While respondents claimed low knowledge prior to shopping, most had experience of watching or using video recorders. A number of

respondents had been lent video recorders by friends who were on holiday (because of the perceived danger of burglary) which allowed them first hand experience. Others had encountered them in their work situations, either in rest rooms or as part of their job. Even watching a video tape at a friends house allowed them to gain knowledge of ease of loading, picture quality etc, and a number of respondents mentioned they had done this.

"I had never used one. I'd seen one working but I'd never had a loan of one." ABC Bought

"I had used them before." ABC Bought

"I knew a bit about them because my boyfriend has one." ABC Bought

"A few friends have one but it was just my mothers that I really paid any attention to," ABC Bought

### Perceived Difficulty

The acquisition of a video recorder was chosen as the decision to be investigated as it was thought that this would be perceived as Extended Problem Solving. Variables related to this were investigated in the first stage of the study which found that specific self confidence in judging video recorders was low, as was knowledge and experience, and this is not contradicted by this stage of the study. In the first stage risk perception was seen as being much lower than expected given these findings and the nature of the purchase.



If this had been a high involvement purchase (necessary for the full decision process to operate) then the low self confidence, low knowledge and experience should result in the decision being perceived as difficult, (and thus extended problem solving.). The findings in the first stage study however suggest that this might not be an EPS situation.

In the second stage depth interviews we had similar findings of low objective knowledge, but we found reasonable experiential knowledge. This suggests obtaining a video recorder might be perceived as Limited Problem Solving. This is supported by the finding reported earlier that respondents often did not perceive the need to obtain further information, again suggesting low involvement in the decision.

A distinction can be made between Purchase Involvement and Product Involvement. (Hawkins and Best p449). This relates to the nature of the deliberation which took place, which has been discussed earlier.

Question. Was it a difficult choice?

"Whether to get one? It wasn't really. Which one to get? It was time consuming, not difficult. I didn't want to walk into a shop and say "I want a video, what have you got? Right I'll take that one. I wanted to look about." ABC Bought

"It was a prolonged choice. Once you'd made the decision that was it. Didn't seem very difficult once you'd made the decision. There's a lot to weigh up. There was hesitation, we'd go away and think about it." CDE Bought

"It's a big decision. Well you usually go in and look at things before you jump in and go ahead." ABC Rental

" I was more worried about the films than I was about the machine." ABC Rental

In general the machine was seen as a luxury item, and as such less care was needed in its choice.

"I'm not committed to having a video. I am committed to having a t.v. set." ABC Rented

"Probably on par with having cream cakes every night for tea. It'll cost you a few bob but if you've got the money its nice to have. You could easily live without it." ABC Rented

"I didn't seem to put importance to the video. It's like a toy." CDE Rental

"Not essential, doesn't rank with a t.v. set, or washing machine or car." CDE Bought

"It's like a tin opener. Its a thing to be used..." CDE Bought

It was noted that for some people the lack of knowledge made the choice easier.

"It was fairly easy. We didn't know enough about it to be too choosy."

Those people who considered the choice difficult normally had shopped in greater depth than other respondents.

"I was a bit worried about which one to choose, not knowing a great deal about it, or what was important, plus the expense of it, -and they cost about £80 if they go wrong,- how reliable they are." ABC Bought

"Yes, because there are so many and because they are so new, no track record... no ones had one for 10 years, I suppose its like a stab in the dark." CDE Bought

"As difficult as buying any of these items. You've got to buy Which...to find out what faults they have found. And ask around which ones people use." CDE Bought

"It was difficult enough. It was a lot of money to spend...I've stood in front of the window display saying that one or that one. Once you've plunked for it, that's it." ABC Bought

The difficulty was sometimes reduced by limiting the choice, a simplication strategy mentioned in chapter 3.

"I dont think it was very difficult at all...We were looking for something very basic - nothing very dramatic...We weren't looking at the higher level, we were looking at the lower range so it wasn't very difficult." ABC Bought

"No...Depending on how much money of course. If you only have so much money you only have so much money." CDE Bought

In the above situation the constraint of price restricted choice to a degree where no real alternatives existed for comparison.

Rental was also a way of simplifying the decision.

"Difficult? Not really. Basically, since its rented if anything goes wrong you just call them out and since I'm only planning on keeping it for a year anyway..." ABC Rental

"I thought in terms of \$2 -3 a week. I didn't think it was any huge big deal. I thought if its disastrous I'll take it back." ABC Rental

Respondents were therefore generally not too concerned about the choice, and often used risk reducing strategies to simplify the choice by limiting the commitment. The area of risk is discussed further in the next section.

### Perceived Risk

When asked how risky the choice was respondents frequently had difficulty in understanding the concept of risk. This made it difficult to encourage spontaneous comments on risk dimensions, or overall riskiness. Prompts often had to be used illustrating potential risk areas. However the possibility of burglary was spontaneously mentioned by a number of respondents.

"What risks? You mean reliability of product? CDE Bought

"In case something goes wrong and it costs you a lot?" ABC Bought

"The big thing I don't like about having a video in the house, is its a big temptation to get your house burgled." CDE Bought

"Not worried about it. Getting stolen worried me..." CDE Bought

Another major area seemed to be the risk of breakdown, with major repair being needed, although people differed in their belief as to the likelihood of this happening.

"I asked what went wrong with them. No one would admit anything goes wrong with them." ABC Rental

"I dont know the workings of the video, I suspect its not as complicated as the original workings of a television." ABC Rental

"It's a complex costly machine." CDE Rental

"Not really (risky)...None of the t.v. sets we've had have ever caused us a lot of problems and I would expect my video not to give us problems." ABC Bought

"Yes, mainly because I dont know anything about them inside." ABC Bought

" Not risky at all. I was given the opportunity of extending the warranty but I didn't bother about it. I suppose that goes back to my experience with t.v. sets...I looked on the video in the same light as the t.v. They've got to breakdown sometime. I'd just get it fixed." CDE Bought

Respondents also used renting, extended warranties and guarantees as methods of reducing the consequence of risk in this area.

"Yes, if you buy without a guarantee. That was a lot of the reason that convinced us...\$75 extra. First repair bill will be a lot more than that because they are quite complicated things." ABC Bought

"I wouldn't have bought it without a 5 year guarantee." CDE Bought

"I don't regard it as a great risk - no more risky than buying anything else. It's under guarantee and and you can get dealers who'll repair them." CDE Bought

"I figure if its going to work alright for a year, its not suddenly going to pack up after 13 months" CDE Bought

"That (breakdown) is the biggest reason why people rent, because of the cost of repair." CDE Rental

"Well, I didn't think it risky at all because of the guarantee and warranty. I didn't buy it." CDE Rental

The ability to pay extra for a 5 year warranty was cited by a number of respondents as removing one of the main benefits of renting, but this whole area is explored in greater depth later.

### Summary

For the majority of respondents this was the acquisition of a product which they had not encountered before and about which they knew little. In theory there should have been little stored knowledge or experience which could be transferred across to help in this decision, which should therefore be an Extended Problem Solving situation.

However, respondents did not perceive the problem this way. Mainly through passive learning they had gained information about the nature of video recorders and their benefits, although often of a general and superficial nature.

Some respondents had gained experiential knowledge, prior to shopping. We predicted in Chapter 4 that beliefs and opinions gained from experience rather than from outside information sources are likely to be held with maximal strength and certainty. This incidental and experiential learning had convinced many respondents that the problem was not as difficult as might be expected and little search was therefore required.

The complexity of the decision was investigated as we had

predicted that the more complex the problem is perceived as being the more search will be undertaken. We found that respondents considered the decision not to have been very difficult, often because of the low involvement of the respondent in the decision. The consequences of making a wrong choice were also considered as not being very high, or unlikely to occur, resulting in low risk perception. Those people who did consider the decision difficult or risky normally used risk reducing strategies to reduce the consequences of risk.

This would suggest that our qualitative findings agree with our stage 1 quantitative findings. While knowledge is generally low regarding video recorders sufficient knowledge exists regarding the nature of the product class and it is not considered a high risk item. This, and other factors, results in the problem not being perceived as difficult. The decision to acquire a video recorder would seem therefore to be Limited Problem Solving, rather than Extended.

The method of acquisition might effect this perception, and the next section compares the views of renters and buyers as to the alternative mode of acquisition.

#### RENT/BUY DECISION

A unique feature of the decision to acquire a video recorder is the choice which exists between renting and buying. The stage one quantitative study generally found no differences between

renters and buyers on variables which had been shown to relate to the decision process. The second stage qualitative study investigated differences which existed between renters and buyers during the decision process, and some of these differences have already been discussed.

This section considers whether respondents had considered the alternative option open to them when acquiring a video, and their reasons for rejecting the alternative.

Previous findings in this area are discussed in Chapter 4 when we reported earlier findings into attitudes towards renting and buying video recorders. Our findings in this study generally supported this earlier work. The issues and worries reported in these studies, format incompatibility, the major outlay required if buying, no repair costs if renting, the greater long run expense of renting, all were confirmed in this study.

### **Buyers**

A quarter of the buyers claimed they had considered the alternative option open to them of buying, but with varying degrees of thoroughness. When asked if they had considered rental various comments were made;

"No, they were pretty well advertised, posters all over the window so you've got a fair idea of them - what's a rental deal. I didn't actually go in and enquire because once I'd seen some of the prices they were pretty much all the same." CDE Bought



"I conciously made a decision to buy, I dont think I considered renting." ABC Bought

"Yes, at one stage. A very short lived consideration." ABC Bought

While some buyers claimed not to have considered renting they all held strong attitudes about rental. One reason against rental was an objection to not actually owning, or having control of the product.

"I prefer to have my own." ABC Bought

"We never liked renting. We'd much rather just own the thing...so we could sell it or do what we wanted." ABC Bought

"Don't like the idea of paying interest on things...I don't like the idea of giving a lot of money away for something that was never going to be mine." ABC Bought

"Just because we prefer to buy. The thing about renting is that we feel you're paying out all this money and it's never yours, so why not buy straight away, because you can still get H.P. terms which costs you a lot less. You keep renting for years and it's never yours, so what's the point." ABC Bought

"Renting was money down the drain as you pay for it and it's never really yours." ABC Bought

Others objected to the committment necessary and often equated rental with H.P.

"My dad doesn't like working that way, he likes paying cash and having it. Doesn't like hire purchase." ABC Bought

"Didn't want to have to put money away. I know if I've paid cash that's it, it's my own." CDE Bought

"I couldn't afford it as it's only my husband that works...I felt that to take it as rental was another rent to him and he really just couldn't afford it." CDE Bought

"I think it's a burden round your neck." CDE Bought

The major reason against rental was that it was considered too expensive, most respondents calculating that the rental would have paid for the machine within 2-3 years.

"When you're renting you never get value for money." ABC Bought

"It works out cheaper in the long run to buy it, we worked it all out and it's cheaper." ABC Bought

"I think you must be mental to rent something like that. Especially if you're going to have it a long time." CDE Bought

"You could buy one on H.P. over 2 years and that's you got it more or less." CDE Bought

A number of respondents mentioned an advertising campaign by Comet which, in a full page advertisement, contrasted the cost of renting against the cost of buying. This was taken as clear evidence of the advantage of buying.

"We worked it out, to hire one for a year cost \$200, and that advert came out, \$300 over 10 months.(to buy)" CDE Bought

The risk of breakdown was not an incentive to rent in the eyes of the buyers, the 5 year warranty frequently being mentioned.

"I just don't fancy renting. You can get a five year guarantee and its \$20 a year." CDE Bought

"Can take out an insurance policy...to cover any repairs and defects." CDE Bought

"Videos have been on the market quite a while." ABC Bought

"I have a friend who's a wizard at fixing colour t.v.'s, so..." CDE Bought

"There's nothing much to go wrong except the head." CDE Bought

The risk of obsolescence was not considered a major worry.

"Shall we hire as they are still changing and will get better as they go on? But we don't hire anything as we have always bought." ABC Bought

"They are good enough now to be a viable buy. When they first came out they weren't too stable so if you rented it the rental company had to pay all the cost of the instability of the units, but now they are sophisticated and stable and it makes them worth buying, rather than renting. You're not going to have the same breakdown problems." CDE Bought

While being against renting videos a few respondents still rented their t.v.'s. Sometimes the reason was availability of cash.

"I had cash which I didn't have when I wanted to update the t.v. I'm a great believer in only having one H.P. at a time." ABC Bought T.V. Renter

"I think when we first got married we didn't have the money to get a t.v. so we hired one and we never thought about it afterwards...Just one of the things you did when you got married, you hired a t.v.." CDE Bought T.V. Rented

Another respondent was not so clear,

"I've always rented a telly - don't know why. Must be something people do, rent tellys. Any telly we have had has lasted for years so they've made money out of it." CDE Bought T.V. Rented.

It has been noted that there was no agreement whether video recorders were simple or more complex than televisions. Therefore, the respondents who thought television as being more complex and more likely to breakdown would be inclined to rent their t.v.

"It's the one thing I've never wanted to do is buy one(t.v.) I know folk that had an awful lot of expense. But they say there is not an awful lot of video breakdown...There's nothing much to go wrong with it except the head." CDE Bought T.V. Rented

Some respondents had rented televisions previously and this had put them off renting

"The one good thing (with rental) was if it breaks down. Then I thought about television. I used to rent a colour t.v. for 9 years and nothing ever went wrong with it - and the money I had rented it for - Oh no! I am not going to do that again." CDE Bought

### Renters

Almost half of the video renters also rented their t.v.'s and a quarter claimed to have considered buying their video recorders,

although their was no obvious connection between the two decisions.

"I don't think we ever did seriously consider buying. Rental was always uppermost in my mind." ABC Rental

"The guys in the work were telling me to buy it, don't rent it, I says no - I just couldn't be sure it was as great as they paint it up to be." CDE Rental

"I considered both and thought rental was the better deal." CDE Rental

The renters had almost opposite views to the buyers regarding obselesence.

"At the time it was the start of cable television, so we didn't think the videos would last the pace." ABC Rental

"I think its much better to rent, especially when the technology is changing...I didn't want to get lumbered with a white elephant." ABC Rental

"The people said they're bringing out new models all the time so if you bought one it wouldn't be much good after a few years." ABC Rental

"I had been going to buy one and then I saw this article saying they were changing all the time...and that it was foolish to buy one." CDE Bought

"When new things come out I tend to rent them as opposed to buying them. It gives more scope for changing." CDE Rental

The cost of repairs in the event of breakdown was also very

important to them, especially the cost of replacing a head which was mentioned by a number of respondents.

"The other reason was that some of the chaps at work had experience of videos and the head was going on them. It was a costly item to replace." ABC Rental  
"I felt if it does breakdown it's someone else's problem." ABC Rental

"We chose to rent and not buy because there is a neighbour has bought one and she advised us not to because when the head wears down, that is your machine done. It's very expensive to replace." CDE Rental

"It was the repairs. It will be quite an expensive thing to repair so I didn't want to buy it." CDE Rental

"I feel safer renting one...Things we buy never seem to last long, you could go for 6 months and be forking out for another one. You'd always be worrying if it broke down could you afford to get it fixed." CDE Rental

"People say they are expensive to repair and everything else and I am a wee bit frightened to buy one." CDE Rental

The financial burden of repairs was thus an important element in renting, as was the problem of actually finding the cash for purchase.

"I wasn't prepared to have that outlay." ABC Rental

"I never seem to have that much cash in hand to go to the shops and buy things like that." ABC Bought

"We couldn't afford to buy." ABC Rental

"We rent our t.v., and it meant going to get a bank loan." ABC Rental

"We didn't have the ready cash to buy it outright." CDE Rental

Hire purchase would have been an alternative method of purchase to over-come the lack of cash but this was not popular.

"The actual hire purchase side didn't interest us at all. We wanted to pay it and get rid of it or rent it. Whereby if we couldn't make the payments they come come and take it away from us. A waste of time sueing us for £23.90 a week, they could just come and lift it. But the H.P. people we didn't want to get involved with at all." ABC Rental

The requirement to sign a contract committing oneself to a period of renting did not worry renters. They either considered the period quite short, or would ignore it. They did not consider they would be held to paying if they explained the situation. This is indeed often the case and is thus a major benefit for those on an uncertain weekly wage.

Some respondents pointed out that the cost of the weekly or monthly payments soon gets accepted into the budget, and the 'threshold' of disposable income becomes adjusted.

"It's the sort of thing, once you get into the habit of paying it, you don't get around to buying it. You keep putting it off, you want to buy this, you want to buy that." ABC Rental

"With the rental, I didn't see that as £600 worth until you mention it now. I only see it as £16 a month - mentally break it down to £4 a week - Not much - 4 pints of lager...You say, what's the odds. You get a movie for £1.50, if you went down the pub you'd spend more than £1.50." CDE Rental

"I'd feel guilty forking out that kind of money. To me I could spend \$4-500 better than putting down a lump sum. I am spending that over 3 - 4 years but it doesn't cost me to get it fixed." CDE Rental

"Doesn't bother you. Once you've started paying out you don't miss it. It's not worth worrying about \$2." CDE Rental

### Trial Period

One of the major findings was the amount of renters, mainly ABC1, who claimed they had rented on purely a trial basis with the intention to buy in the near future.

"Trial period...we searched around for a minimum contract of a year in case we didn't want it - after a year that was it - it was gone if we weren't using it. This was a wee rental, a try out." ABC rental

"I pottered around the shops either looking at prices or models and scanned bits of paper. Then I thought it seems an awful price to pay for something that is likely to breakdown so I decided that rather than go out and buy one, I will rent one for a year or so and after that, if I feel it is worth while keeping it, I will buy one and send that one back. If I don't actually like it, I will send that back and I won't have lost anything." CDE rental

"A year is a good time to decide whether or not I'm going to use it or whether it's an expensive luxury. I knew it would be an adequate time for evaluation." ABC Rental

"One reason was to see how well I would use it. I rented it for a year to see how well it was used and maybe consider buying one after that." ABC Rental



## Summary

Buyers and Renters had therefore sometimes considered the alternative mode of acquisition, but the renters were more likely to have done so. This was partly due to potential buyers deciding to reduce the risk involved with purchase by renting.

Buyers tended to equate renting with H.P., of having a continual committment to pay out for a product which did not become yours. If the cash was available then once bought this became a 'sunk cost' and could be ignored. It was also a better deal financially. Breakdowns were considered likely and were covered by the guarantee or an extended warranty. The market was generally considered to be stable now.

Renters were concerned about potential future changes making a bought product obsolete and considered the possibility of breakdown high and likely to be expensive. Lack of cash was a constraint with respondents seeming happier with a small weekly outlay, which could be cancelled if necessary. Renting also allowed trial before committment, and some respondents claimed they would be buying at the end of the rental period. Others claimed dissatisfaction and would not be continuing the contract.

It is to be expected therefore that renters and buyers will differ on the importance they place on certain criteria and this may be reflected in the nature of their search and choice behaviour. This will be discussed later.

## SEARCH BEHAVIOUR

To separate search behaviour from deliberation and evaluation is misleading as it encourages one to see search as a separate stage of a decision. This could be the case if a decision was to be optimised rather than satisfied as in this case respondents would have to conduct a complete search to ascertain the viable alternatives on the market, collect information on the relevant criteria, and then with this complete information a decision rule would be used to carry out the necessary evaluation to arrive at the best choice. It was clear this happened in only a few cases. It was much more common for search and evaluation to proceed hand in hand, for discussion and deliberation to take place throughout the decision process rather than the individual waiting until complete or sufficient information had been collected.

To aid discussion however we shall attempt to make this artificial distinction, and in this section discuss the nature of the search process. Whether it was active or passive, its breadth and depth, the use made of individual information sources and the respondents views on the information sources.

The length of market and premarket search has already been discussed under Problem Recognition and it was noted that premarket search was usually much longer than market search. We have also noted the amount of knowledge or experience which existed prior to market search.

In considering the nature of search behaviour during the decision process Aquila's classification, as discussed in Chapter 3, is relevant. He suggested that information acquisition can be of two major types, Purposeful Search and Undirected Viewing, which are two ends of a continuum. The categories he suggested are Undirected Viewing, Conditioned Viewing, Informal Search and Formal Search.

We hypothesised that Undirected Viewing and Conditioned Viewing are employed when there is no immediate need for information and the decision maker is merely avoiding a "barren environment", and the need or problem is not yet sufficiently motivating for purposeful action to take place. The individual is likely to be in the premarket stage.

Informal Search we suggested was carried out when a problem is recognised, but possible solutions are known and the type of information requirements are readily available.

Formal Search we suggested was likely to take place when knowledge is extremely limited, the problem is unstructured and possibly ill defined and information is needed to help clarify the problem, identify alternatives, and help in the selection of the 'best' choice. We suggested that in this situation a reasonably complete decision process will be undertaken, with therefore a matching formalised search process.

We also quoted Hansen who discussed 'forced learning situations' which occur when exposure results from the environment with no intention to gather the information. This area was discussed in Chapter 3.

The Qualitative interviews supported our ideas in these areas. One respondent clearly recognised Hansens forced learning in his own case.

"I had a rough idea...not by specifically looking at adverts, but by adverts getting at me. You can't avoid the world of advertising. They ram it down, you're forever seeing them." ABC Bought

Another respondent explained how he had gained general knowledge of videos by incidental learning.

"Just by looking in shops as I passed. Adverts etc. It is a highly marketed item." CDE Rental

The incidental, passive nature of the search in the premarket stage was made clear by a number of respondents.

"I had heard and read wee bits and pieces that were floating around but I hadn't looked into it in great detail before that." ABC Rental

"I looked in a whole lot of shops ,- in passing, I said Oh! there's a video, but without any real intention of hiring or buying. Just a new thing in a shop window and you noticed it. I never went into any details." CDE Rental

This sort of search is the undirected viewing of Aguila which frequently takes place in the premarket stage, as noted earlier

in Chapter 3. The conditioned viewing, when the person is 'interested' in the video but still has no intention of obtaining one was slightly more directed, to clarify market conditions.

"We didn't purposely go out shopping for a video, just casually looking at them." ABC Bought

"I didn't actually make a physical attempt to go out and get any material." ABC Bought

"Search? No, not really. I had just looked myself and listened to different people saying what they thought." CDE Rental

"I very casually looked but I didn't approach it in a very methodical fashion." ABC Rental

Some respondents had never progressed beyond this level of search and the knowledge of alternatives and choice criteria was very low.

"I don't think I did any shopping around. Probably if I hadn't rented the t.v. I would have done some shopping around." ABC Rental

"That's the shop we decided to go to, so we didn't bother looking anywhere else. If it hadn't had the special offer we we would probably have looked further." ABC Rental

"We could probably have got it cheaper if we had shopped around." CDE Rental

"I didn't enquire into shops. I may have looked in shop windows, but I didn't go into the shops and say 'Can you give me a better deal than Radio Rentals?', because I was told by my friend the display manager (in Radio Rentals) that their price range was good and they were competitive with anyone else." CDE Rental

Rental respondents had often gained the impression from their general incidental learning that prices and models were similar, and because of the low involvement mentioned earlier it was felt no further 'effort' was required. Perhaps surprisingly some buyers also did no further search, formal or informal.

"I never knew nothing about them." CDE Bought

Most respondents, especially if buyers, followed this general gathering of information about market conditions (i.e. general prices and formats etc.) with a period of market search which included more than just one shop, although it was still of a casual informal nature.

"We had a look around, over a period of a few weeks just to see what sort of things were on the market and how much they cost and how suitable they were."  
ABC Bought

"I did a bit of research before, around different places, any time I was out..." ABC Bought

"Going shopping, I was looking in the different television windows. Weighing up the size, cost and everything. That one looks better, that one maybe fits in where I plan to put it. Just generally looking." CDE Rental

Certain respondents clearly felt that after this period of time nothing further could be gained by looking and the formal search consisted of the actual trip to purchase a video.

"About two weeks later (after looking). They all looked much the same to me so I just went into one, DER, and said I wanted to hire a video, 'What can you give me?' I got what I considered a good enough deal so I just went in and the one I choose was DER." ABC Rental

"We had been looking at various shops and their videos for a while beforehand but we finally had a proper look on the Saturday." CDE Rental

"What happened, we were sitting on a Sunday afternoon and the other three ganged up on me and said, 'We're fed up waiting for the video, lets go and buy one,' and because Comet is open on a Sunday, we went out and bought it." ABC Bought

"The weekend we decided to get one, we just went straight out and got it." CDE Bought

The formal search strategies tended to take two approaches. Some respondents spent a short period shopping, often only a day, but went into a number of shops and considered a number of different videos. Search prior to this had usually been casual and limited. In such cases the 'looks' of the video played an important part in the final choice, as did the onset of exhaustion.

"They (other shops) had ones similar to that, but by the time I got to Clydesdale I was just tired and I said that one will do."

The respondent had continued looking as;

"I wanted to see what I could find. Maybe a better looking one."

and;

"I was going back if I didn't see anything along the road."

but;

"I left it and walked away and came back ten minutes later. I realised I was tired." CDE Bought

The other formal search strategy tended to follow the formalised decision process rather better, with differing information sources being used and deliberation spread over a period of time. These

respondents were usually more able to articulate how they had searched, and what they were looking for.

In the previous situation the choice available at the shop was a major influencing and limiting factor. In the second formalised approach some respondents had clearly already formulated clear criteria which must be satisfied, and in some situations had sufficiently considered the problem to have isolated their final choice. In these cases respondents could be classified as 'presold', as noted by Armstrong, and thus there was little the manufacturer or salesperson could do to influence them.

"Well, we went into the shop and practically said what we wanted - and they tried to convince us not to buy that one, which we thought was very unsalesmanlike." ABC Bought

"No one really knew about it until I'd been around the shops and told the wife we were going to buy the family a video. By that time I had narrowed down the choice." ABC Bought

"I just phoned up a selection and found there wasn't much difference in price. When I discovered what features I wanted I called back and asked which machine they could recommend and I think two of them mentioned Ferguson, but at the end of the day I walked into a shop in my local shopping centre and said will you show me this machine." ABC Rental

The amount of undirected and conditioned viewing, and informal search being conducted reflects the general availability of information in the environment. Respondents did not have to invest much effort in information acquisition to gain what they considered sufficient knowledge. Formalised search procedures



were therefore the exception rather than the rule. It is possible that if the information environment had not been so rich respondents might have felt the need to invest more effort and follow a more formalised search process.

The amount of search undertaken before purchase is extremely difficult to quantify. It was clear that respondents had gained impressions and attitudes about the video market with very little effort, friends comments, occasional newspaper articles, shop windows, had all created an information environment which made it difficult to separate 'directed search' from simple socialisation. A video was part of the sophisticated materialistic culture we live in and respondents therefore absorbed information as part of their normal life. Any attempt at asking respondents to rate their 'use' of information sources was likely to be unreliable, even if limited to the market search stage of the decision process. An attempt was therefore made to simply note when information sources were mentioned, and to probe and prompt as necessary. During the discussion various comments were made which related to the respondents perception of the confidence they could place in differing information sources, and their preference for the information sources at different stages of the decision process.

## COMMENTS ON INFORMATION SOURCES

In Chapter 3 we discussed various studies of search behaviour. These tended to quantify the amount of different information sources used to obtain a total measure of search behaviour. As discussed earlier we rejected this approach, but instead allowed respondents to explain how they had found out about video recorders and what information sources they had found most useful.

As predicted experiential learning was of most importance to most respondents as a method of learning, as was personal examination. We predicted that respondents would prefer the most readily available and familiar sources of information, regardless of potential inadequacies or bias. The most readily available information sources are usually personal sources and we therefore suggested word of mouth and personal communication would be of major importance.

We also noted however that the mass media affects the climate within which personal influence operates and thus may have have an important indirect effect by influencing preconceptions and creating a 'mental set' towards a product or company.

We found personal influence and window shopping to be the two major information sources. In general marketer controlled sources such as sales assistants, leaflets and magazines, advertisements

etc. were little used and little reliance placed upon them. These will now be discussed in greater depth.

#### PERSONAL SOURCES

The information source used most frequently and which seemed to have by far the most influence was friends and relatives.

The experience of friends and relatives, their advice and opinions, were mentioned by virtually all respondents. Interpersonal influence was at its strongest in the decision to actually obtain a video, (as discussed under prepurchase motives) with friends discussing the differing video tapes available and thus stimulating the desire to obtain a video recorder. Thus in premarket search friends helped supply knowledge about the general market.

"I had spoken to quite a few friends who had them."  
CDE Bought

"Talked to friends at work and so on." CDE Bought

"Mainly friends. People we knew who've got them. If we were talking and the subject got round to it, we would say we were thinking of doing it - how did you go about it, what do you think about renting and buying." CDE Bought

"In vague conversations. Nothing terribly precise. I wouldn't say I had any big discussions. It was quite an impulsive thing to do." ABC Rental

"Probably subconsciously they did...Without you realising it people are persuading you...Yes, I wouldn't mind one of those things." CDE Rental

"In the work it's a big subject. Talk about it a lot. I love the films." CDE Rental

"There was a lot of kidding going on at work - they were saying get one, get one. I said 'I'll wait and see.' It just went on like that." CDE Rental

They also gave information of a more specific nature, which would help in the market search stage by clarifying potential criteria and alternatives.

"People were saying don't go for this kind, and don't go for that kind." CDE Rental

"I would probably say friends (were most helpful) rather than salesperson. With what I had heard I made up my mind myself - that we didn't want anything complicated." CDE Rental

"So I just asked them the different types of video for my needs." CDE Bought

"Most of my mates had one, so they just told me how they got on with them." ABC Rental

"Mainly at work because a lot of folk at work have them or had them and that was really where I got the information ."CDE Bought

"My parents were thinking of it so they were bandying names about... I knew the good names to pick." ABC Rental

Some respondents claimed friends had no influence and were of no help, but they were in a distinct minority.

"Both the people who had videos are less intelligent about electrical things than I am. So I wouldn't have gleaned anything from them." ABC Bought

"Most people I spoke to didn't know much about it themselves." CDE Bought

In some cases a friend's advice was sufficiently well regarded for him to be considered an opinion leader.

"There's a chap in the office and he's quite an expert on television and videos, hi.fi equipment...I've always placed a great deal of trust in his opinion and he suggested VHS. He told me this and I accepted it." ABC Rental

"He is an old friend of very long standing and I felt I could rely on his judgement to give me true information on what was good and bad." CDE Rental

In a significant number of cases friends were the only information sources used prior to actual shopping, especially in the case of renters. It was clear that in most cases an informed friend's advice was considered far superior to any other information source. This agrees with the majority of studies we reviewed which found personal influence the most influential method of persuasion and most used source. However, most studies found other information sources becoming important at different stages of the decision process.

### **Shopping**

Shopping was the next major source of information. This included window shopping as well as talking to sales assistants, although the latter should properly be included as a personal source.

Window shopping could be seen as experiential learning, similar to a product trial, as in some cases the video was actually seen working. However as the good was not believed to differ much in picture quality the major purpose of window shopping was simply to look at the range of video recorders.

### Window shopping

Just under half of the buyers and just over half of renters gave window shopping as a method of gaining information. This was especially true of the CDE Renters where all but one respondent spontaneously mentioned window shopping.

"Just casual looking in the window - there's such and such a video, or something like that." ABC Bought

"Looking around at what the prices were and what we could get." ABC Bought

The rental shops make much more use of their windows to give information, often resulting in renters feeling no need to talk to the salespeople.

"I had a look at the display in the window then went in to see what they were offering. Basically all the same, not much difference in what you were paying." ABC Rental

"We had been looking at various shops and their videos for a while beforehand but we finally had a proper look on the Saturday...We were down in Duke St. where all the video shops are so you are not stuck for choice and we looked through them in the shop windows and all the prices. We went into the shop and saw the model we really preferred for the price. Only went into the one. All the information

was in the window regarding (deposit, guarantee, contract period). Rather than go into the shop it is all there for you to see. All pretty standard." CDE Rental

"We've looked in shops and seen them. Just sauntering by and said 'not bad'. You can see all the prices splattered all over the window." CDE rental

"I didn't go in and inspect them. There were 2 or 3 wee shops in Duke St. and I cast my eye.(only chatted in one) We were just looking in the window of the other ones because we didn't like the look of the videos." CDE Rental

"We had looked at prices outside...Because you can see them all and see prices and see things they are offering." CDE Rental

This fitted in with the casual approach to the choice. Windows could be looked into in passing, while doing something else, and therefore required little effort. Some large stores were used in the same way in that a number of respondents just walked around some shops without attempting to, or wanting to, talk to the salespeople. For the buyers this was often the equivalent of window shopping.

"Most influential? The fact that I was able to go round the stores on my own - just see them. I tend to be cynical about salespeople because they are there to sell the product." ABC Bought

"Over a period of time, when you're in a shop, you go over and look at the videos."

Q.Did you talk to sales people?

"No, just looked, we weren't that interested, we were just looking at prices and what was available...just looking and clocking prices."ABC Bought

"Videos are all displayed with cards on them telling you everything the machine does...I can read the card and know everything it does. No need to talk to salespeople." ABC Bought

"Got an idea and then went round and looked. Once we'd got the info. we'd just go into other shops to check the price." ABC Bought

"Only if we were in the shop. I'd be walking by, likes of Partick where every second shop sells videos and tapes. You'd just pass the time by looking at them and working out which is the cheapest." CDE Bought

"I picked a big electrical shop and went in to browse around. Looked at a few leaflets. A big super store where you can walk along and stand for twenty minutes looking at all the buttons and work it all out. Then I went to Robert Smiths and talked to one of the guys who explained everything, all the formats and so on. I went round quite a few shops just to see what variations were available." ABC Rental

This phase of the shopping was clearly of use in creating the evoked set of alternatives and formulating choice criteria. Many respondents did not seem happy talking to salespeople until this stage had been completed. While a number of shops used for window shopping was often quite large, the respondents did not seem to like a more formal approach to shops until they were ready for the final choice. The amount of shops used for the actual choice was often only one or two, especially if this was a large store such as Comet or Lasky, almost half the respondents claiming to have only gone to one shop when actually considering buying one. Justification for this varied;



"If there was going to be any great deals or bargains I'd have read about them in the newspapers. And the fact that the prices in the shops were very similar to the video magazines, I thought what's the point." ABC Bought

"Just went to Comet. It is the biggest and saves you trailing around. We looked in all the papers, the prices are all \$2-3 difference. We just went to Comet." ABC Bought

"We got it from Hutchinsons, that's where they've got t.v's, everything. We really just looked around the rest for different prices, just to make sure we weren't paying a higher price for the same sort of video." ABC Bought

The buyers had shopped around between 2 and 10 shops, including some rental shops. The renters claimed less shops (because of the importance of window shopping). When it came to the actual decision to buy there was little difference between the two groups with the average being 3 shops for renters and 4 for the buyers.

Some respondents had only used 1 shop for the final choice, while using up to 15 during the previous search process, which reflects the progression in their decision making. Other respondents claimed the same 6 shops were used both as information sources and as potential purchase locations. In this situation respondents were considering the offerings from all shops and could have returned to a previous outlet. In the first example only the one outlet was considered as supplier.

If the renters were already committed to a rental outlet through a rented television, this was obviously a restriction on choice.

"I don't think I did any shopping around. Probably if I hadn't rented the t.v. I would have done some shopping around." ABC Rental

Bearing in mind the greater opportunity for window shopping with renters, and the incentive for existing television renters to rent a video from the same outlet, the two groups did not differ markedly in their behaviour. Equally there were not clear differences in the amount of search between the two social groupings ABC1 and C2DE.

#### Shops and Shop assistants

Shop assistants were generally not consulted until the final stages of the decision process when the decision to buy a video recorder had been made and often a choice set had already been created.

The general comments about shop assistants and salesmen were negative, suggesting that even at this stage they had little influence.

"Some shops were very helpful, majority gave the impression they had been geared to push a particular type or model. In many places I came away dissatisfied." ABC Bought

The biased nature of the salesforce was a recurring theme,

"...not useful at all. They seemed to try and force people to buy something they didn't want." ABC Bought

"Varies, they are just interested in selling. That's their job." CDE Bought

"Not very useful. Comet are dreadful. Not interested in selling. Told you to go up and read the notices." CDE Bought

"Not all that useful. I found them mainly trying to put you on to a more expensive one, probably get commission anyway, as it means an extra \$2-3 to them at the end of the week. They're salesmen thats all." CDE Bought

"I think when you go into shops the salespeople try and sway you to their preference...That's what we found." ABC Rental

"What I find annoying was certain shops trying to push certain things. You've got to cut through an awful lot of crap until you get it right." ABC Rental

"The salespeople in Laskys were a bit dodgy, so that put us off totally." ABC Rental

The rental shops had less choice, and respondents seemed to expect less from them, possibly because of the information available in the window and on cards.

"It was only a rental shop and they didn't know much about it." CDE Rental

"Helpful? Yes. Answered most questions you could ask. Didn't really push in rental companies as against some salespeople. Just asked if you wanted attention and answered questions." CDE Rental

"Ones in Biggars are excellent, ones in DER and Radio Rental tended to be a wee girl and she just said that's what we've got, not particularly helpful. Ones where you contemplate buying it, their salepeople are more geared up on it." ABC Rental

The technical knowledge of the salespeople, or lack of it, was often commented on.

"Fairly helpful on the whole. Technical knowledge was limited...In common with most salespeople they'd rather push their own things than tell you which would be the best buy." ABC Bought

"...they dont know what they're talking about" ABC Bought

"First one, they had no experience, they don't tell you very much as they don't know much themselves...or cannot be bothered telling you." ABC Bought

"Unless salesmen are technical salesmen and know all about it, all they are trying to do is sell you a piece of furniture it could be anything at all." CDE Bought

"She seemed a bit dozy, not very reliable. Just her general manner. She didn't inspire confidence." ABC Rental

"Just depended which one you went into. Some didn't have a notion...They just hand you a leaflet and say there it is." ABC Rental

In some cases where the respondent did meet a 'good' salesman then it had a major influence. They tended to be seen as knowledgeable and trustworthy.

"Comet salesperson was very good, he pointed out everything. Basically told you all about them and said take your choice. He wasn't trying to push anything." ABC Bought

"In the shop I bought it from I had a very detailed discussion. I found by and large they were very good." ABC Bought

"Clydesdale were good. A lot of the shops didn't come to speak to you. Clydesdale as soon as you walked in you got someone right away." CDE Bought

Two renters who had looked at various shops, as well as talking to friends, explain why they rented from the shop they did.

"The salesman wasn't good enough. That's all. In the third shop I got a nice female who knew her stuff, not too heavy a sell, showed me a lot of things, she told me what each one did, compared values and I said that'll do." CDE Rental

"The girl in the shop was very, very fair... We just went by what they said in the shop really because we didn't have much of a clue...She was good at selling her product. She recommended that one and we took her word for it." CDE Rental

#### Mass Media

Other sources of information mentioned were magazines, general editorial, advertisements, and leaflets.

Specialist magazines were mentioned as a source of information by half the ABC Buyers, but only one person in each of the other three groups. The star ratings were seen as being helpful. As one respondent put it;

"We got a few magazines and it gave you a star rating for all the recorders...I just read bits and pieces as most didn't interest me. I just wanted the ratings listing all videos in existence - categorised into price, 7 or 8 features rated, quality of sound, picture, price, value for money, various controls and a few other things I cannot remember." ABC Bought

Such information would obviously fulfill most information needs and allow a careful consideration of the best product for his needs, as well as creating a very large awareness set. It was not the case however that a magazine giving this information lead to a reduction in the use of other information sources, and this source was often not used as 'formally' as it might have been.

Friends magazines were sometimes used rather than buying one themselves, and the magazine often used casually.

"...just by reading that I found out a bit about them, which was the best one and which was the rotten one - and the price range as well as course. I wouldn't make a point of going out and buying one." ABC Bought

It did not seem necessary to respondents to go to the bother of acquiring magazines, especially if they wouldn't understand them;

"I cannot see the reason for looking in which because what is there in it for you? All I wanted was a good picture." CDE Bought

"No, I tend not to buy these magazines because I'm not technically minded at all." CDE Rental

"I looked briefly at them in the shops, full of technical jargon and I flicked through it only. Too much heavy going to have to scan through at all." ABC Rental

Respondents seldom mentioned general newspaper or editorial material as influencing them, possibly because it was absorbed passively and seldom had a direct effect on the decision.

## Advertisements

Respondents had more comments to make regarding the role of advertisements. Newspaper advertisements were mentioned by about half the respondents across all groups. Advertisements in magazines were seldom mentioned by any group. Again, little real search or use of advertising was generally done.

"I couldn't say they persuaded me in any way. I just took note of them." ABC Bought

"No, I daresay if one appeared in the newspaper we would notice it, but I'm not aware of it." ABC Rental

"I probably did glance at them but it was after I got it that I noticed them a bit more." ABC Bought

Generally advertisements were not seen as being that useful.

"I would need to have seen it that day because I do not save cuttings and plan out what I am going to buy." ABC Rental

"Didn't see any. The ones I saw were for renting video and t.v. at the same time and as we already had two televisions in the house it wasn't really relevant." ABC Rental

Advertisements, especially the large full page Comet advertisement, were useful, if at all, for comparing prices.

"I had read them and kept an eye open for ones saying 'Scoop purchase deal' and that sort of thing to compare prices." ABC Rental

"...for prices, I noticed prices from ads. I saw no fantastic offer." ABC Bought

Advertisements were thus generally regarded as part of the information environment, to be noticed in passing but not to be utilised as part of a formal search procedure.

### Leaflets

Leaflets were mentioned slightly less often than advertisements as a source of information.

"I picked up a couple of leaflets, but mainly to look at the price." ABC Bought

"Fairly useful, not so sophisticated as for a car. They were helpful up to a point. More to clarify what one machine was capable of compared to another." ABC Bought

Leaflets were available in some shops and could be collected during shopping. This was obviously of use if time was available to allow them to be considered, otherwise they would be merely scanned.

"Never took any away. Just browsed about the shops and anything I wanted I asked." CDE Bought

Some people used them rather more deliberately;

"We had various bits of paper and leaflets on them and we sat down one night and decided that was the one we were going to get." CDE Bought

In general detailed examination of leaflets did not fit in with the amount of search effort and deliberation respondents were prepared to invest in the decision and they did not feel it necessary to study the differences in sets in great detail, the



leaflets often being merely a reminder on price.

#### D.M.U./Purchase Pal

A final aspect of search behaviour was the involvement of others. In over half the total cases respondents mentioned the involvement of others in the decision to buy. When the respondent was married or had some similar involvement the other person was almost always involved in both the decision to get a recorder and often in which video to get. It was normally seen as an acquisition which would benefit the whole family, and often various family members contributed to the cost, making it a joint purchase.

In just over half the situations a 'purchase pal' was present at the time of acquisition. This person did not necessarily play a major part in the final choice but seemed to be there simply to support the final decision. In other situations the whole family went along for the final choice. Only a very small minority did not mention the existence of 'relevant others' in the decision.

#### Summary

The general findings of this section are that search could be classified into premarket and market search. Initially informal search of an undirected or conditioned viewing nature was undertaken with little direct effort. General knowledge was normally obtained prior to market search, often convincing the respondent that little formal search was required, or would be

justified. The market search period was often extremely short, but a selection of shops was still visited, or one shop with a wide range and a good reputation. By the time a shop was entered to make the purchase the choice of models had often been reduced considerably.

Personal information sources were of most help and were used the most, followed by shopping. Window shopping was used extensively and was again perceived as being a very useful method of gaining information.

Shop assistants were normally not used as an information source until the end of the decision process, and most respondents were dissatisfied with the quality of the information given and its impartiality.

Other sources of information were used if a more formal search was being undertaken but it was not normally considered worth the effort of collection. Specialist magazines had a great deal of information and ratings of all models, but this was often regarded as being 'too technical' with respondents thinking they would not be able to understand it, and were used mainly by the higher social classes.

Advertisements were seen in passing and helped give an idea of price ranges in the premarket search stage. Little notice was taken of them in a formal sense.

Leaflets were collected by some people when shopping but were mainly used to remind them of prices. A detailed examination of leaflets did not normally take place and respondents did not consider they were a good sources of information.

Finally a purchase pal was often used during the actual decision although they did not necessarily play a major part in the final choice.

The amount of search behaviour was not that high for most respondents. While some respondents followed a formalised search procedure and obtained information about prices, features etc before making a final choice, most respondents were happy to limit their search effort and did not feel the necessity for 'complete knowledge'. Incidental learning was at a premium with high reliance on their own or others experience which was transferred to this choice.

By the time of final choice information on market conditions was vague but felt to be sufficient. Company information was very limited and Product information was limited to certain important criteria.

What was clear was that the rental choice was seen as easier, as there was less variability in the offering and information was easily available. Secondly a number of people found it difficult

to describe their search and decision making. This was partly due to some respondents being less articulate and partly due to the informal nature of the search and decision making which made it difficult for respondents to express what they had done. A superficial investigation into their behaviour, such as ticking multiple choice questions about the amount of search would almost certainly have lead to misleading responses.

Respondents thus constantly denigrated the amount of search they had conducted which resulted in the general impression of no search. Yet when the decision was analysed it became clear that information acquisition had taken place, but often at the passive end of Aquilas continuum. Respondents did not feel the need for detailed information, or were able to acquire it without formal search. Incidental learning and experiential learning were thus of major importance in these decisions. Only occasionally did a full formal search take place.

Previous studies have generally found that personal influence was the most important information source, often throughout all the stages of the decision process and especially in later stages. Our findings generally confirm this except that personal influence was probably the dominant influence throughout the decision.

Where we do differ is in the use made of shops. Many studies do not differentiate between window shopping and advice from sales

assistants in the way that we do and this makes comparison difficult. Udell (1966) found advice from stores as ranked 5th in importance and Block found window displays and advice from sales people 5th and 6th respectively. Beal and Rogers (1957) found store displays became more important in the later stages of the decision process. In the industrial decision making situation Ozanne and Churchill and Webster found personal sources and industrial salesmen important in the later evaluation stages.

While our study found salespeople were used mainly in the later stages, similar to other studies, generally they had little influence. In the few cases where salesmen were important they had a direct influence on the purchase.

The use of window shopping throughout the decision process, in market and premarket search, was an unexpected finding. Window and store displays were probably the second most important source of information, after friends.

A similar contradiction to previous research is in the use of the mass media. Other researchers suggest mass media is of importance at the beginning of the decision process and helps to create awareness. It then decreases in importance to the point where it has no direct influence on the ultimate purchase. ( O'Brien 19 ) Beal and Rogers found more commercial sources being used in later stages of the decision process.

Our study found mass media generally to be of no importance to the decision. Only the upper social classes respondents used specialist magazines to any degree and few respondents mentioned the effect of advertisements. Mass media created an information environment which in some cases stimulated respondents to talk to friends and window shop but as O'Brien commented, "Mass media has no direct influence on ultimate purchase... such influence begins solely with personal sources."

## EVALUATION

As we suggested in Chapter 3 the purpose of search is to gain the knowledge necessary to allow the decision maker to clarify a problem, recognise potential solutions and create criteria for judging between the potential solutions. We further suggested that this was a sequential process, following rules of simplification which would be reflected in the nature of the evoked sets formed.

A three stage process was shown where as, information was gathered, the choice would be slowly reduced from all models, to those models of interest, to those actually considered in depth from which a choice would be made. We therefore asked the question, "Does decision making follow the suggested three step process of Awareness set, Consideration set and Choice set?", and "What is the size of the relevant sets created. In this section we shall consider the findings relating to these two questions.

### Evoked sets

In general such a sequential, simplifying process seemed to be taking place, but the casual nature of the initial stages of information gathering (premarket search) meant it was difficult for respondents to speak with clarity or precision of these early stages.

The Awareness set, prior to market search, was obviously related to knowledge and experience as discussed earlier. The level of

knowledge and comprehension, as regards specific brand alternatives, was low. In a number of cases this was still the case after a choice had been made. Most respondents knew that two major formats existed and a few knew of the third, although this was never considered a viable choice due to lack of video hire facilities.

Respondents also had an idea of the price range of video recorders, and what their own preferred price range was. If this was not known prior to market search the knowledge was obtained very quickly in the market search stage. Thus information was necessary to define the market structure and product range but need not result in knowledge of actual alternative products or brands, other than in a general sense.

For those few respondents who had purchased specialist magazines, the awareness set was the total listing of models in the magazine. Similarly, for those respondents who had looked at four or five shops the awareness set was often all those models seen, which was often almost the whole market.

When asked how many videos they had seen most respondents replied in vague terms to imply 'a lot', 'most', 'lots'. Some buyers quantified it to be 'all', 'over 40', and most buyers were able to say they had seen ten or more. The more detailed evaluation stage did not start however until later.



If we take the Consideration set to include only those recorders looked at during the market search stage as possible alternatives then the size of the evoked set usually drops considerably. If only one shop was visited the Consideration set could be said to be all the videos in that shop. This was often the case when respondents deliberately chose a large outlet such as Comet to ensure a sufficient choice existed to make further shopping, to enlarge the Consideration set, unnecessary. Even in these cases the number of alternatives was often in double figures, although rental outlets only offered a choice of 6 - 10 models.

As with search behaviour, respondents were clearer with regard to the end stages of the decision process and could often state precisely how they had reduced the number under consideration to a manageable choice set. This was never above 6 and was generally 3. As will be discussed later, the application of non compensatory decision rules sometimes eliminated sufficient models that only one model was left for consideration and this product was then acquired. This was more likely to happen with the renters who had a smaller Consideration set initially and generally had a smaller Choice set (of 1 or 2).

The information collection did seem to be initially concerned with clarifying the problem, highlighting benefits and problems with video recorders, consideration of the need for the product, whether it would improve family entertainment etc. and most respondents classified it as a similar product class to

television and hi.fi. It was considered a luxury general electrical good, unworthy of detailed Consideration and not generally compared to the purchase of essential, important products.

While the expression of this classification had to be interpreted from the general comments made it was generally clear this had taken place in the premarket 'need' stage.

The consideration and choice stage was normally over a shorter period of time, as discussed earlier. As Alderson and Sessions and Keil noted (Chapter3) in the earlier stages the market structure was being learnt which allowed for more efficient search in the market stage of creating consideration and choice sets.

This was often the case when respondents used store loyalty to limit their search on the grounds that previous experience had taught them they could minimise their search and deliberation and still have a satisfactory product.

It would therefore seem that our model with a three stage process would seem to be justified and is a meaningful reflection of the actual decision process, with differing information needs in each stage.

As will be discussed next, it also became clear that different

decision rules were being used during these three stages, which supported our view that simplification strategies would be used.

### Decision Rules

We discussed the use of different decision rules in Chapter 3 and suggested they would be relevant to an appreciation of the creation of the evoked set and later search behaviour. We suggested that non compensatory rules would be used as simplifying strategies and we reported Paynes view that the conjunctive decision rule was very useful for reducing the size of the evoked set and would be used in many low involvement purchases. Similarly Park and Lessig and Ratchford argued that the use of non compensatory rules was part of the psychology of simplification. We therefore investigated the question "How are alternatives added to or deleted from the evoked set, and can we identify the application of decision rules?"

As discussed earlier in 'rational' decision models based on simple economic theory buyers should collect information on all relevant attributes for all relevant brands, and these brands should then be judged using compensatory decision rules to 'optimise' the end choice.

It was clear with virtually all respondents, and especially CDEs that they had no desire to optimise their choice, to choose the 'best' model. They would be satisfied with any model that performed adequately and met certain specified criteria.

"I was just looking for a video. As long as it could tape when I was out." CDE Bought

"As long as it does the job it's supposed to do, it doesn't bother me at all...this is just a basic machine and it'll do." CDE Bought

"I knew it fulfilled my requirements, so I left it at that. I looked at the others with cable remote control etc but I didn't see the point." CDE Bought

"I don't hold any great sway on things being perfect as long as they work and keep working." CDE Bought

"As long as it does the job it's supposed to do and doesn't give me much trouble I'm happy." CDE Rental

Respondents were therefore looking for products which surpassed a certain minimum standard and we would expect conjunctive decision rules to be used.

The operation of these decision rules, can be seen as 'weirs' or hurdles over which products must pass to be considered further, as discussed in Chapter 3. The application of the weir effect was noted in virtually all cases with sometimes more than one hurdle being created.

The two major criteria used to reject models from further consideration was price and/or format.

"We decided on the system first before actual machine...Once we'd made up our minds on the Beta then that was the cheapest Beta machine." ABC Bought

"We definitely decided we wanted a Beta, probably because they were cheaper, I'm not sure." ABC Bought

"I decided I wanted a Betamax because it was cheap and I thought, at the time, it was a better system."  
CDE Bought

"VHS was what I wanted because I was told VHS were more reliable plus there is a bigger range of films available on VHS..."CDE Bought

"I made up my mind at a certain stage to get VHS."  
ABC Bought

"The only problem was which type to choose, between Betamax and VHS, and I finally plumped for Betamax. Two reasons, first reason was it was cheaper and asking around work, folk who know more about them than I knew, suggested that Betamax was the better of the two systems. I suppose folk would argue that but that was the gist that I got. They are the less popular. I can't understand why when they are cheaper." CDE Bought

For those buying cost was important and the buyers generally considered Beta had the edge in quality and was significantly cheaper. For the renters the decision over format was only a decision if the rental outlets considered offered a choice. In the majority of cases this was so, although the price difference between systems was not so obvious in the rental charges. However VHS was generally preferred.

"We were looking for a VHS model because you get more choice if you rent films." ABC Rental

"I discussed with my friend about that. He said Betamax are better tapes for quality but VHS had more films out and that was all I was interested in. I wasn't bothered with the quality so long as it was acceptable," ABC Rental

"It was VHS I was wanting." CDE Rental

"When we decided on VHS I never even asked about Beta. When you have neighbours and relatives who have VHS you tend to stay the same, simply for the fact that maybe we'll get a shot of their tape, or swop tapes over." CDE Rental

While format was a major consideration for some people, with no consideration of the alternative system, this was not always the case and some people included both systems in their consideration and choice sets.

"Possibly wanted a VHS but when we actually went out to buy the video having discussed it with the salesman...we decided we would go for a Sanyo and I think it's a Betamax." ABC Bought

"At the time I quite fancied a VHS, but I would have taken Beta. I wanted something reasonably sophisticated, one of the better ones." ABC Rental

"Not so much difference between VHS and Beta. I wouldn't think we thought much about it, I didn't." ABC Rental

Price was the other 'weir' used to eliminate brands and reduce the choice to a manageable one.

"Price range limited it drastically by elimination." ABC Bought

"We didn't want to go higher than \$350 - 400." ABC Bought

"We were just thinking about the price, that was the only thing that made us decide." CDE Bought

The price did not matter so much to the renters, as the range of

prices was much less, but for the CDE group of renters price was again sometimes a dominant feature.

"I didn't know at all what model, I just knew the price range I was prepared to pay." CDE Rental

"This was the cheapest model that I could get at \$14 per month... I don't know how many there were - that was the cheapest." ABC Rental

"I didn't have a choice. If I was going for a video I had to have the smallest cost and in that price range there was not a choice." CDE Rental

In the case where price or format operated as a weir neither of these criteria was open to negotiation or compensation. The buyer was not prepared to change format for a reduction in price, he was not prepared to pay more for an extra benefit. Any model falling outside his limits was simply excluded regardless of any other strengths.

As mentioned if the price limit was set very low this sometimes resulted in only one model passing the criterion, as in the last respondent quoted. This was especially the case with reconditioned video or special offers. The respondent had a limit above which he could not go for financial reasons, thus however good the offering the money was not available. A major reduction in price suddenly brought a model into his price range and he thus had a choice set of one, which was immediately purchased with no further search.

A final comment is that the price limit was normally a price range, rather than just the cheapest, and products which fell below this range were also excluded.

"...at one point there were videos offered at \$299 and I wasn't specifically looking for something quite as inexpensive as that." ABC Bought

"We weren't looking for an awful cheap one." ABC Bought

Assuming that the application of satisficing decision rules had resulted in models which might satisfy their requirements then further consideration took place. By this time the decision was often almost complete, as the application of the previous rules had created a form of incremental decision making leaving little opportunity for influencing the decision. The choice between the items in the limited choice set often therefore seemed capricious or superficial.

"Alex did what I call the basic research and picked out the 3 models which he quite liked. I picked this because...it was clean and neat." ABC Bought

"It came down to 3. The guy said basically all three had the same bits inside them. they just had different external features and different holes. That one was the cheapest." ABC Bought

"We narrowed it down and the one I liked was slightly more expensive. I just like the look of it. There were two, both very similar. The man in the shop said that was the one we wanted." ABC Bought

"...three or four. Got it down from four to about two and when it came to the decision for me it was very simple. I just liked the look of the machine and it did all I wanted it to do." CDE Bought



"There wasn't that much between them. The only deciding factor in the end was cost. The videos within our range were more or less all the same, just by different manufactures." CDE Rental

One of the reasons why this final stage did not cause much concern for respondents was that there was not seen to be much differentiation between models, making them virtually interchangeable at this stage of the decision process.

"The one up in Castlemilk is roughly the same as that so they must be all the same." CDE Bought

"I wouldn't think so. They all perform the same basic functions which is playing back films and recording programmes. And some have different wee tricks. I don't think that's what you are paying your money for anyway." ABC Rental

"Don't think so. Different name, buttons in different order, clock in different place. That's all." ABC Rental

"Basically all do the same thing. Some others have wee added extras...Very little difference really although I spent two months looking at them." CDE Bought

"All the same as far as I'm concerned." CDE Bought

"Not really because they all come from Japan. I think they are much of a muchness." ABC Bought

### Final Choice

In the Choice set we predicted a change of decision rules to elimination - by - aspects, lexicographic or compensatory

decisions. This will result in more criteria being considered than in the previous stages of the decision. We previously discussed the classification of criteria and suggested market, company and product criteria should be considered, rather than just focusing on product features. We have already mentioned in the section on motives and Problem Recognition the importance of the more general beliefs and criteria regarding the market place, here we will discuss the criteria related to the final stages of the decision.

When the final choice was being made the criteria used could be generally classified into five headings. Format, Price, Image, Features and Style. As mentioned format and price were also used as criteria for elimination purposes but other comments were also made relating to the role of these two criteria.

#### Format

Many respondents wanted to play prerecorded films on their video and therefore a sensible consideration was the availability of the films in either of the two main formats VHS and Beta. A number of respondents mentioned this was important and a number had checked or noticed in video tape shops that VHS seemed to have many more tapes available and a better selection.

"We wanted VHS as opposed to Beta because at the time there were more films on VHS." ABC Bought

"The guys at work were saying they'd got VHS - more films on VHS than Betamax." CDE Bought

"We were looking for a VHS model because you've got more choice if you rent films." ABC Rental

Others believed that only one tape format would finally remain on the market and that the loser would disappear. (Bearing in mind the fate of the Philips/Grundig system this was a reasonable assumption.)

"We were told Beta was going out and VHS was the main one." ABC Bought

"Two systems running together, sooner or later they are going to phase one of them out. It seems Beta is down at the moment so that is the one that is going to go." ABC Bought

The influence of peer groups was again clear, especially with the renters.

"Friends say VHS is better." ABC Rental

"Virtually everyone I've spoken to, all say VHS." ABC Rental

"Most people we spoke to recommended VHS." CDE Rental

Videos with a VHS format generally had an inbuilt advantage over their Beta competitors, which therefore had to be balanced by other factors if a Beta machine was to be chosen.

### Price

The price was clearly related in peoples minds to the sophistication of the machines, and people seemed to have a clear distinction between 'basic' machines and 'sophisticated'

machines.

"I only looked at the basic machines and that's the basic model price." ABC Bought

"We just wanted the basic things, just the nicest one at the best price." ABC Bought

This will be discussed later under Features but most people did not think it worth paying too much for extra features.

"The price difference for what the machine did, I didn't reckon was worth the extra amount of money." CDE Bought

"Well, the one I would have liked was too expensive, it was really terrific, top of the range I suppose, so price put me off anyways and I moved on, because as with anything else you've got to have a budget, money is not limitless, so I had to decide what fell in my range I could afford, no more than \$400. I saw one for \$450, for something that might record another channel, and I wasn't paying that extra just for what seemed to be that extra thing." CDE Bought

"If you just want a video for basic recording off the television, playback and getting stuff out of video shops you are as well with a dead cheap one." ABC Bought

The renters often considered price didn't vary much between stores.

"I found prices were all six of one and half a dozen of the other, there wasn't a great deal of difference on prices." ABC Rental

Some buyers agreed.

"Prices are more or less the same." CDE Bought

"My feeling is that video prices are much of a muchness." ABC Bought

Sometimes a price cut meant the video was bought at that outlet.

"When I saw that one at Arnotts and it had \$30 off it, making it less than other shops, I thought right, I'll get it here." ABC Bought

This was especially true of a 0% interest offer, which allowed purchasers to pay over a number of months, normally 9 or 12, which was mentioned by about a quarter of buyers as a consideration in choosing a particular outlet.

As stated most people had a price range, an idea of what they would end up paying.

"I knew my price, how much I wanted to spend and that was about \$400." ABC Bought

"I was prepared to pay up to \$500, I could get all the features I wanted for under \$500." ABC Bought

"We realised it was going to cost somewhere over \$300. We didn't think of an upper limit but I don't suppose I would have contemplated paying over \$450." ABC Bought

"We didn't want to go higher than \$350 - 400. We didn't think it was really worth it for what we wanted to use it for." ABC Bought

This limit was sometimes breached, as the following conversation shows.

Husband "About \$400 - 500 range. We thought \$500."

Wife "Maximum."

Husband "No, No, Not maximum because we paid more than that, \$530.."

Wife "We always do that, set a limit then pay more."  
CDE Bought

A renter shows a similar flexibility,

"I thought - I heard \$13 and I presumed that was for both a month to have, \$13 a month is nothing - I'll rent them both. I started looking and it was reconditioned tellys and old videos that were going and it was \$19 a month. So I went into Multibroadcast and made one of those deals and it was \$25 a month - I just decided to do it anyway."  
CDE Rental

Thus, while respondents generally wanted value for money price was not necessarily a determinant attribute. Once within a price range respondents did not consider prices varied much between outlets and were not normally that concerned about buying the cheapest. This was especially true of renters where much less variation in price was perceived.

### Features and Style

The looks of the recorder were very important to respondents, being probably the most important criteria after price and format. The looks, or design, of the machine was connected to its complexity and thus the amount of features offered. This was tied up with only wanting a basic machine, as in general the extra features were of no interest to respondents. Respondents often seeing them as gimmicks.

"When I got to the shops I asked all about these things (features) and they were novelties as far as I'm concerned. I don't need them and I didn't take them into account. I said I just wanted a basic video." CDE Bought

"We just wanted something simple that records and plays. That is the simplest one they make." ABC Bought

"I wanted something purely for a simple function - to record the next days programmes. It's as straightforward as that. I didn't want anything else." ABC Rental

"We weren't looking for anything that had lots of gadgets as long as it could do the basics." ABC Bought

"They are doing almost anything you want. Gets to the point where it is gimmicks." CDE Rental

Extra features often were felt to lead to over sophistication and were not understood.

"A lot looked far too complicated." ABC Bought

"I don't understand all the buttons on it." ABC Bought

"Colour search - what do you need colour search for...it doesn't matter if you're searching in black and white or colour." CDE Bought

"Bit more expensive plus they had an awful lot of functions on them I didn't think I would ever use." CDE Bought

"No point in having a machine that does things we weren't going to be using." CDE Rental

"It was an awful lot for me to take on, all this fancy stuff. I didn't really understand it all." CDE Rental

Apart from extra features often being seen as gimmicks which put up the price, they also had a major effect on the design.

Comments were often made about the 'buttons'.

"Liked those buttons." ABC Bought

"A lot of them had big long buttons - I didn't like that. I like the wee flat buttons like that - just touch." CDE Bought

"I didn't like the other one as it had buttons all over the place, on the side and so on. It looked cheap." ABC rental

"I don't like seeing a lot of buttons, like it compact. I think it was that more than anything else." ABC Rental

"I didn't want a lot of buttons, didn't want complicated things like that. So while they (assistants) were telling me I was viewing up the buttons and how complicated it looked and how simple it was. I eliminated it that way." CDE Rental

Respondents also clearly wanted a compact , neat design, which was difficult to achieve with a complex machine.

"Some were big and clumsy and almost looked old fashioned. This one was small, compact, looked neat and tidy." ABC Bought

"Some of them had bigger bodies which I didn't like. I don't like big things." ABC Bought

"I didn't want anything bulky, wanted something neat that could be stuck away out of the road." CDE Bought

"As compact looking as possible. I don't like big, ugly pieces of machinery. I thought some of them were very ugly - especially some of the top range ones." ABC Rental



"It wasn't a big bulky thing like some of the earlier ones I'd seen. The other one was a bit bigger with stacks of controls at the front. To me it looked cheaper, to me, that one looks quite dear." CDE Rental

A number of respondents made it quite clear that appearance had been the final deciding criteria.

"My mum was looking at 'how's it going to look in in the lounge', 'how nice does it look compared to the others', I'm afraid that was one of the factors in getting a video." ABC Bought

"Rejected it purely on the fact of appearance...My wife said that one will go well with the t.v." ABC Bought

"I was just looking for something good looking." CDE Bought

"It boiled down to that one looking better." ABC Rental

"Appearancewise that was the best. The others could have been more technically advanced for all I know because we never actually went in to see one." CDE Rental

Specific features were sometimes mentioned such as 7 day or 14 day programming, but again most recorders could be programmed 7 days in advance and few people felt the need for more. The ability to record in advance, from different channels, and more than one programme was a level of sophistication that few respondents reached. They were 'incidental' to the basic need.

"I'm not concerned with what they do. As far as I'm concerned videos play tapes and record." ABC Bought

"That one just records the one channel basic, and I thought that's enough for my needs, I don't need anything more elaborate or more complicated. Basic unit is all I need." CDE Bought

"Och, I don't care as long as it records and plays back a good film." CDE Rental

The renters could acquire top range videos at little extra cost, as one respondent found.

"It's got everything. Some of the things I don't know how to work...I never knew you could tape different channels and tape 14 days...I only found out about those after I had rented it. I hadn't a clue." CDE Rental

One other feature that was mentioned occasionally was the choice of front or top loading machine. A front loader could be put into a smaller place, such as underneath the t.v., and therefore hidden away easier. However some respondents had heard the tapes of front loaders were more likely to jam, and were more complex to repair. No clear preference came out, although it was a precondition for consideration with a few respondents.

"A fundamental restriction was that it had to be a top loader." ABC Bought

"..didn't want a top loader."ABC Bought

"I then decided I wanted a front loading machine because of where I wanted to put it, I knew I wouldn't have space to open it beneath the t.v."ABC Rental

Quality and Reliability was not considered important. Quality of

picture was usually felt to relate more to the quality of the tape used and make of t.v. Videos were not seen as varying much.

"I would imagine the picture from different videos is much the same." ABC Rental

"Difficult to tell if quality is the machine or the tape." ABC Rental

Any worries about reliability were eliminated, as discussed earlier, with the guarantee or maintenance plan, or by renting.

"We took out a five year guarantee for that, so we're alright for 5 years." CDE Bought

"I am always of the impression that if it's going to go wrong it'll hopefully go wrong under the guarantee period." CDE Bought

For renters ease of payment was a consideration for choice of outlet.

"I wanted somewhere handy for paying too...and for phoning up if I had a problem with it." ABC Rental

"Approximate vicinity to where I work...I didn't want to go to great inconvenience every month." ABC Rental

"The reason I eventually went to Granada was that they were offering more or less the same thing, though differing machines, in the showroom near the college so it was a quick nip down, 10 mins." ABC rental

We stated our belief in Chapter 3 that the importance of product feature was frequently over stated but were surprised to find of how little importance they were to respondents. As this is the

area most often researched by manufacturers it suggests a misplaced emphasis. Similarly we were surprised by the emphasis respondents placed on the 'looks' of the machine. Bearing in mind the importance of window shopping during the decision process this would suggest design is a major importance in the final choice.

### **Brand Image**

Brand image could be considered a company factor, rather than a product criterion. While not often mentioned spontaneously it was clearly of importance, as most respondents were reluctant to buy a product from a company they had not heard of.

"I didn't want one I had never heard of. I hadn't heard anyone talk about that make or seen them in the shops. Didn't know if it was an established company. I would rather have a make I knew had been going for a good while." ABC Bought

"If it was a brand we had never heard of we wouldn't have bought it. I suppose it depends on the price of the next one." CDE Bought

"Some names strike me as being a better product - now that must be advertising that has got through to my brain." CDE Bought

Renters were less sensitive to brand names.

"No, in fact I couldn't have told you what it was until the fella came up and installed it." CDE Rental

"I think if I'd been buying I would be a wee bit more aware of the brand name with regard to suitability of parts if anything went wrong. When renting, it didn't matter at all." CDE Rental

"I didn't realise it didn't have a brand name on it.  
I thought I can always pop back to DER." CDE Rental

This was partly because of the own branding of some rental shops.

"Every hire company changes the shell." CDE Rental

"It was not a question of one having a better make  
on it, because none of them had a make on them." ABC  
Rental

"More or less the same models (as shops) except  
rental companies had their own sticker on them." CDE  
Rental

In general though, even renters were brand concious.

"We tried to go for a make that we recognised as  
reasonably good." ABC Rental

"We did go back to DER to have a look at theirs.  
(and rejected) I think it was the make DER had,  
husband said it was not so good. So and so had one  
and I wouldn't touch that one." CDE Rental

"DER and Radio Rentals tend to have unknown makes."  
ABC Rental

"I knew Multibroadcast was Ferguson and I knew  
Ferguson was a good name." CDE Rental

Respondents were sometimes willing to place trust in the store  
and rely less on the brand. This was sometimes due to the store  
image being of more importance than the brand image, or more  
frequently because of previous favourable experience with the  
store.

"I'd have bought an unbranded one, providing the  
vendor gave me confidence." ABC Bought

"I'm in a television shop with a good reputation. I've never had any trouble with the television. I couldn't see them selling me duff equipment. If they did you just send it back to them." CDE Rental

"My experience with rental people is that they get a prettty servicable model. They are not going to sell and rent something they have always to be out repairing. Probably is a well known brand - the only thing is it's made for DER with their name on it." CDE Rental

Respondents often transferred experience from other products in deciding to avoid or seek out a brand.

" A lot of makes I didn't like because I knew that other equipment they made was a bit risky. Generally because I knew their stereo stuff." ABC Bought

"We bought a music center and it wasn't very good. I'm not saying Ferguson have a bad video, but I probably put it into the same sort of focus. Radio, television, video - Ferguson are not very good." CDE Bought

"I would have prefered the Sony since my television has been so good, I thought I would tie it up with the same." ABC Rental

"Actually, I wanted a Ferguson Video star because I like Ferguson - we had a t.v. of theirs. I don't know if it's British but it seems British." CDE Rental

There was no obvious bias for Japanese or British makes, some respondents liking Japanese, others British.

"Japanese products have a record of reliability." ABC Bought

"You tend to trust Japanese things when it comes to electronics." ABC Bought

"I never really looked at the others, I was set on a Ferguson. Maybe I thought if it did break down I'd get parts as it wasn't foreign or Japanese." CDE Bought

"I prefer to buy British, if I can't buy British I'll buy European." CDE Bought

Country of manufacture was not a major worry with some people realising they all came from Japan.

"All the Japanese makes are reliable, they always seem to have a very high standard. Even Sharp which people think is British, it's all made of Japanese components, or made in Japan." CDE Bought

Brand image seemed to have different dimensions. Reliability was an obvious aspect of importance, which related to servicing and parts availability and the likelihood of repairs being needed.

"If things go faulty (with unknown brand) you usually cannot get parts for it." CDE Bought

A well known brand name was therefore a risk reducer.

"People who have a name like that, while they may not be the cheapest, they can't afford to have people saying 'Oh don't buy Sony, it's crap', because everyone knows Sony, so..." ABC Bought

Respondents often had difficulty in explaining why a well known brand was preferred, and what advantages a well known brand conferred, but familiarity generally seemed to reduce the worry felt on other areas (such as reliability and quality) and was thus a substitute cue in many cases.

## Summary

The conclusion from our analysis was that decision making did follow a process although the stages of the process were not clear. The informality of the search behaviour meant that the size of the awareness set was difficult to meaningfully quantify and it was sometimes difficult to tell when products moved into the consideration set. Non compensatory decision rules were used to reduce the amount of items in the sets, often resulting in only one product being suitable in the choice phase. It could be argued that in such a situation no actual decision exists, but this ignores the process by which other potential alternatives were excluded. By setting 'weirs' over which products must pass respondents simplified the final decision quite considerably. Respondents felt there was little differentiation between models, especially after reducing to the choice set. At this stage relatively 'minor' criteria might sway the choice between one product or another. Respondents clearly did not want the 'best' model for their money but were happy with any model that satisfied their needs, even though further search or greater evaluation might uncover a 'better' choice.

The criteria used during the choice process were normally Format (VHS or Betamax) and Price to reduce the choice. Then, within the price range such things as brand image and styling became important. Most respondents wanted a clean uncluttered design from a recognised company. The design of the machine, especially with regard to the buttons, effected their perception of



complexity and neatness. Features were usually seen as gimmicks for which it was not worth paying extra. As the amount of features was related to price, complexity and amount of buttons, most respondents felt they only wanted a basic machine. Quality and reliability was not considered a matter for concern.

The majority of respondents used simplifying strategies in their evaluation, as they had in their search with a product becoming acceptable once it had passed certain limits on a reduced set of criteria. Further search or evaluation was not normally considered necessary to try to obtain a 'better deal'.

## CHAPTER EIGHT

### CONJOINT ANALYSIS FINDINGS

This chapter will briefly review the methodology of conjoint analysis and discuss relevant aspects of this. It will then discuss the nature of the rank orders which is the input for the Monanova programme and the groupings which were possible for the purpose of averaging the input. Next we shall discuss the meaning of 'stress' and the stress obtained in our study. Finally we shall discuss the utilities obtained from the Monanova program and interpret their meaning.

As discussed in chapter 5 the basic idea of trade off analysis is that consumers choose between alternative concepts/products etc. which allows the Monanova program to determine how much each attribute contributes to the choices they make.

The problem presented to the respondent was a choice of video recorders, with five factors selected each expressed at two levels.

FACTOR	LEVELS	
Format	Beta	VHS
Price	(Low)	(High)
Features	Basic	Sophisticated
Brand	Not well known	Well known
Appearance	Untidy/bulky	Neat/compact

(The wording on the price factor was varied between renters and buyers to ensure equivalent levels were perceived, as discussed in chapter 5)

From this set of factors and levels it is possible to construct 32 theoretical products (one level of each factor per concept). As discussed a balanced design was used consisting of 16 of these concepts.

#### Data Collection

One of the virtues of the technique is that it involves a very simple data collection task for respondents in that they are merely asked to sort the 16 cards into one of three groups;

- the concepts they would consider
- the concepts they might consider
- the concepts they would not consider renting or buying.

The 25 buyers and 25 renters were then asked to rank the concepts within each group according their interest in buying or renting

them, thus effectively ranking the cards (1--16) reflecting their individual interest.

Respondents had little difficulty in this procedure and generally stated that it was similar to the choice process they had actually made, although some respondents said it was more formalised and rational than the process they had gone through.

It is possible to hypothesise that the three groups the respondents were asked to create are similar to the evoked sets created in the decision process, i.e. the 16 cards was the total awareness set. The cards they might or would consider make up the consideration set and the choice set could be related to the cards they would consider. This hypothesis would require further study it is interesting to note that respondents had limited variation in the size of the three groups. Group 1, consisting of those products they would consider, had a range of 1-6, but an average of 3 and a mode of 2. Group 2, those products they might consider buying, had a range of 2-8 with an average of 4 and a mode of 4. The rejection group had a range from 4 to 13 with an average of 9 and a mode of 8. As one would predict from our discussion in previous chapters, and as found in the qualitative study, the size of the sets becomes smaller the closer to actual choice reinforcing our previous findings.

#### Data Analysis

The rank orders from the respondents is the input to the computer program. The ranks can be analysed individually or clustered into

similar groups before being analysed with the average set of rank orders being the input.

If the average rank order is being used then some measure of the variation within the group being averaged is obviously needed, to ensure the average adequately represents the group. The Kendall Coefficient of Concordance was chosen as the test to determine this.

Siegel (1956) explains the test,

"imagine how our data would look if there was no agreement among the several sets of rankings, and then imagine how it would look if there was perfect agreement amongst the several sets. The Coefficient of Concordance ( $W$ ) would then be an index of the divergence of the actual agreement shown in the data from the maximum (perfect) agreement. Very roughly speaking,  $W$  is such a coefficient."  
Siegel 1956 p230

The degree of agreement between the judges (in this case our 50 respondents) is reflected by the degree of variance among the  $N$  sums of ranks and  $W$ , the Coefficient of Concordance, is a function of that variance, with  $W$  taking a value from 0 to +1. The null hypothesis is then tested that the sets of rankings are independent of each other. A high or significant value of  $W$  may be interpreted as meaning that the observers or judges are applying essentially the same standard in ranking the  $N$  objects under study.

The groups we analysed were chosen because of their use as quotas in the population sample. It would of course be possible to

conduct further research, such as a cluster analysis of respondents to identify other groupings but this was not felt to be necessary at this stage (Hagerty 1985). Our groups consisted of the entire 50 respondents; the renters (25 respondents); the buyers (25 respondents); and by social class into an ABC1 group and a C2DE group (25 respondents in each). Four final subgroups ABC Renters, ABC Buyers, CDE Renters and CDE Buyers were also analysed.

TABLE 8.1 Kendall Coefficient of Concordance

	W	Chi-square	d.f.	signif.
All cases	.5502	412.6736	15	0.0000
All ABC	.5521	207.0288	15	0.0000
All CDE	.5771	216.4211	15	0.0000
All Rented	.5925	222.1921	15	0.0000
All Bought	.5525	207.1965	15	0.0000
Rent ABC	.6067	109.2027	15	0.0000
Rent CDE	.6408	124.9479	15	0.0000
Bought ABC	.5828	113.6538	15	0.0000
Bought CDE	.5858	105.4485	15	0.0000

It can be seen from Table 8.1 that the null hypothesis that there is no association is rejected and we can treat the groups as similar. While the W increases slightly as we refine the groups there is only a marginal increase. Renters had slightly more agreement in their rankings than buyers of video recorders. The average rankings of the groups were therefore used as the input for the next stage of the procedure and the stress and utilities

provided by the Monanova program analysed.

## Stress

Before analysing the utility the stress related to the utilities must be considered. Those readers wishing for a technical consideration of stress are referred to Kruskal's original papers on non metric scaling in the 1964 Psychometrica vol 29 nos 1 and 2. The idea of finding the stress of a configuration is exactly analogous to the concept of 'residual sum of squares' (as used in conventional regression techniques) i.e. it is a measure of goodness of fit. The lower the value of the stress coefficient the better the fit of the constructed utilities to the original data.

Though rules of thumb for evaluating stress have been offered (Green and Wind 1973) no absolute cutoffs are available for distinguishing between good and bad results. Acito and Jain (1980) give a discussion of this area but a common technique for guidance is to ascertain the stress for random data. If this is done a stress of between 50 - 65% is common. (In our case 56% stress was obtained from meaningless data). The 5% lower band of stress from random rankings in Acito and Jains experiment ranged from 22% to 49%. Thus in 5% of cases reasonably low (22%) stress can be obtained from random data, suggesting that meaningful stress should be lower than this.

The number of stimuli used has an effect on the level of stress, with the less stimuli making it more likely that a good stress value can be achieved from input of purely random data (i.e. meaningless data) (Klahr 1969). An internal RBL research report suggests very low stress (0.05) is needed for 8 or less stimuli before the output is worth interpretation. In our study we used 16 stimuli at 2 levels, suggesting that stress of less than 20% is meaningful.

### Analysis of Stress

The individual rankings of the 50 respondents were first used as input and the stress values checked. These were found to be very good, as presented in Table 8.2.

Table 8.2 Values of Stress

%	Frequency	N= 50
0.0 - 0.5	14	
0.6 - 1.0	20	
1.0 - 10	0	
11 - 15	3	
16 - 20	5	
21 - 25	1	
26 - 30	3	
30+	4	

As can be seen from the table in 43 of the cases the stress was satisfactory and in 34 of the cases the stress was less than 1%. This would have allowed individual analysis of utilities to have



taken place if this had been wanted.

Having satisfied ourselves on this point the average rankings discussed earlier were then given as input, and the following stress values obtained.

Table 8.3 Stress Values Average Input

Group	Stress
All	0.8
Bought	0.5
Rented	0.5
ABC	0.3
CDE	0.5

Having considered the Kendall Coefficient of Concordance and the stress values it was therefore clear that we could move on to the next stage of analysing the utilities.

#### Utility Analysis

When analysing the utilities in Table 8.4 it must be remembered that these are relative values and will only have meaning when compared with other similarly derived values. For ease of comparison some authors standardise the utilities to allow them to be scaled from 0 to 1, or to remove the negative values. As these utility values are only meaningful in a relative sense their meaning is unchanged by such a transformation (Johnston 1974). In this instance the original utilities as given as output by the Monanova program were used.

A number of basic patterns are evident in the utilities presented in Table 8.4.

Table 8.4 Groups Unadjusted Utilities

Attribute and level		All	Bought	Rented	ABC	CDE
Format	VHS	1.280	1.111	1.491	1.476	1.025
	Beta	-1.280	-1.111	-1.491	-1.476	-1.025
Price	Above Av.	-0.937	-1.122	-0.654	-0.848	-1.046
	Below Av.	0.937	1.122	0.654	0.848	1.046
Features	Basic	-0.258	-0.255	-0.252	-0.198	-0.271
	Sophisticated	0.258	0.255	0.252	0.198	0.271
Brand	Well known	0.828	1.097	0.622	0.864	0.737
	Not well known	-0.828	-1.097	-0.622	-0.864	-0.737
Design	Neat/compact	1.317	1.113	1.378	1.148	1.496
	Untidy/bulky	-1.317	-1.113	-1.378	-1.148	-1.496

As expected from the previous analysis of concordance there is similarity amongst the groups. This was not what was expected prior to the stage one and qualitative findings, but is compatible with our findings discussed in chapter six and seven.

Taking the respondents as a total, the factor which was most important in the choice process was the appearance of the video followed closely by the format (VHS or Beta). Price was next followed by brand name. As predicted the product features were of little importance to respondents and contributed very little to influencing the choice.

Table 8.5 Relative Importance of Attributes for all Respondents

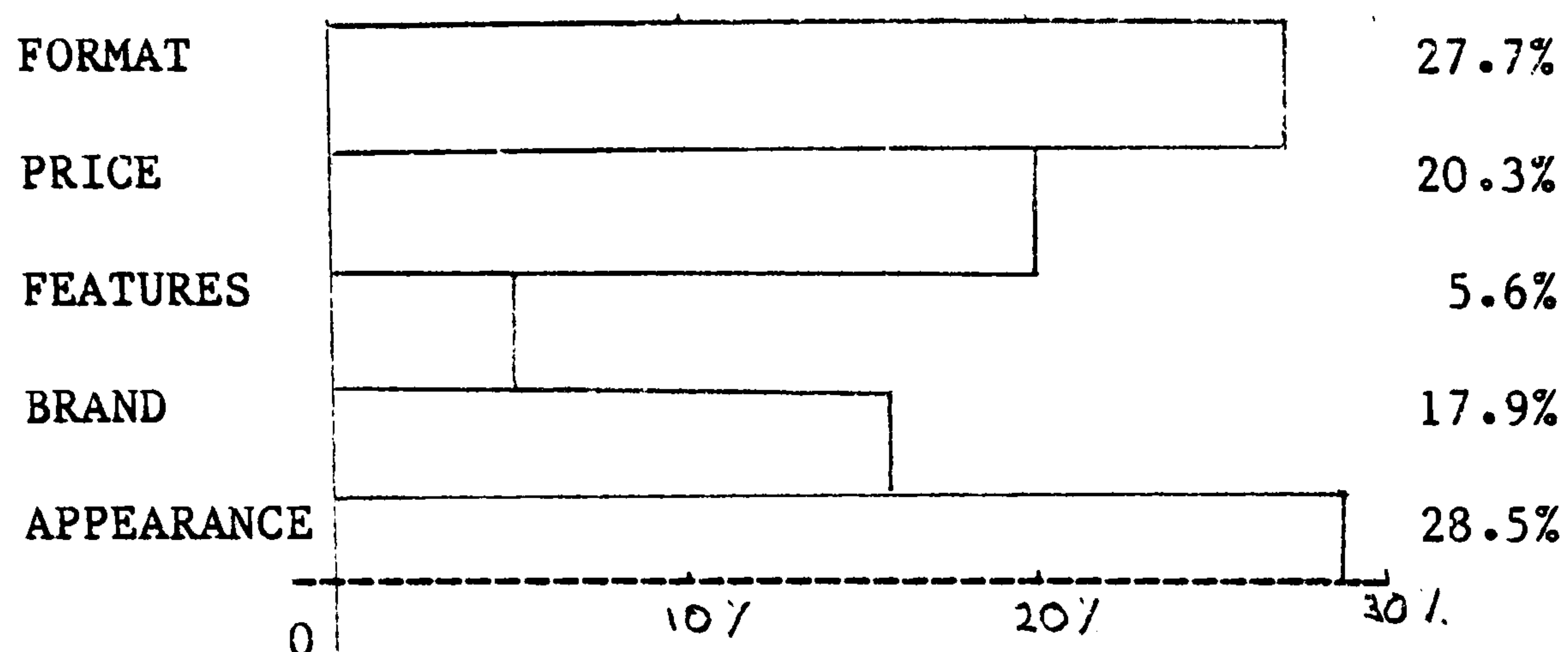


Table 8.5 shows the relative importance of each attribute included in the study. The difference between the level of the factor with the highest and lowest utility is a measure of how much consumers would have to 'trade off' between these limits. This information is represented in table 8.5 by showing what proportion of the total utility differences is accounted for by each factor.

To find the relative preference for individual products the utilities must be summed. Thus the total utility for any product can be determined by adding up the individual utilities factor by factor, for all possible 32 products.

Consider example 1;

Example 1

Factor	Utility
VHS	1.280
Below Av. price	0.937
Sophis/machine	0.258
Well known brand	0.828
Neat and compact	1.317
	4.620 Total Utility

Mathmatically this product has the highest possible utility. If a manufacturer could offer such a product it would yield the greatest number of purchasers. As is often the case the machine required is unrealistic, in that a sophisticated machine is wanted but at a below average price. However, the utility lost by substituting a basic machine is so low that a modification of this 'perfect' machine which would have only slightly reduced utility is feasible. Such a machine is shown in example 2.

#### Example 2

Factor	Utility	
VHS	1.280	
Below av. price	0.937	
Basic machine	-0.258	
Well known	0.828	
Neat and compact	1.317	
	4.104	Total Utility

In example 3 we have the case of a manufacturer who produces Beta machines. In this case the total utility drops to 1.544 for a comparable machine.

#### Example 3

Factor	Utility	
Beta	-1.280	
Below av. price	0.937	
Basic machine	-0.258	
Well known	0.828	
Neat and compact	1.317	
	1.544	Total Utility

In this case it can be seen that the manufacturer faces a major problem. It is unlikely that he can increase the sophistication of the machine, and this would only have a marginal effect

anyway, and all other factors are already at a high level. It would seem that the previous product described in example 2 has an unassailable position. A VHS machine which is untidy and bulky still has a total utility of 1.986 and would in theory be preferred over example 3. The Beta machine would only be preferred if the VHS alternative was inadequate on two factors, such as being above average price and not well known (mental addition shows this to have a utility of 1.09) even though the VHS would be a sophisticated machine.

The worst possible product is presented in example 4.

#### Example 4

Format	Utility	
Beta	-1.280	
Above av.price	-0.937	
Basic	-0.258	
Not well known	-0.828	
Bulky/untidy	-1.317	
	-4.620	Total utility

While such a machine is again unlikely, as was example 1, a sophisticated machine with all other characteristics staying the same is realistic and has a utility of -4.104. The unknown manufacturer is producing a sophisticated machine at a higher than average price and the extra features have lead to a untidy and bulky design. This Beta manufacturer would, on the basis of our data have virtually no chance of breaking into the market.

A well known VHS brand could therefore consider the benefits of producing a well (compact and neat) designed basic machine which was sold at a premium price, as in example 5

Example 5

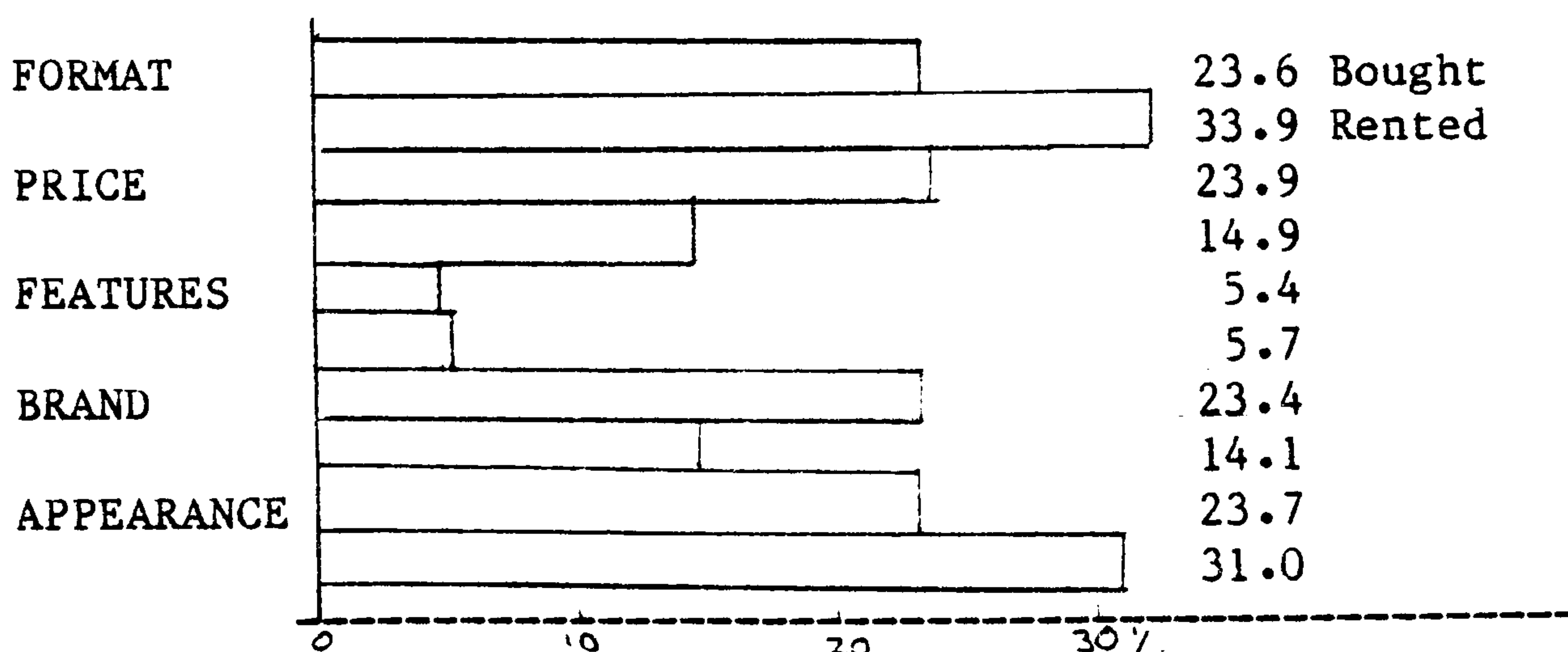
Format	Utility	
VHS	1.280	
Above av. price	-0.937	
Basic machine	-0.258	
Well known brand	0.828	
Neat and compact	1.317	
	2.230	Total Utility

Comparison of Groups

The previous section considered how the utilities could be interpreted for the whole sample. As discussed earlier the sample can also be broken down into smaller segments depending on the characteristics of interest and this will now be done.

Table 8.6 gives a comparison of the proportion of total utilities between renters and buyers, and it can be seen from this that certain changes occur.

Table 8.6 Renters and Buyers Proportion of Utility



The buyers rate Format, Price, Brand and Appearance almost equal at 23.6, 23.9, 23.4, and 23.7, with Features a poor fifth with 5.4% their proportion of utility. The Renters put format and appearance as most important with 33.9% and 31%, Price and Brand next with 14.9% and 14.1% and Features last with 5.7%.

The renters proportion of utility is explained by reference to the qualitative interviews. Most renters realised that the rental chain had placed their own label on someone else's machine and were therefore willing to trust the rental outlets judgement, (or had no choice in brand from the individual outlets). Also, as rental included maintenance the risk reduction inherent in acquiring well known brands was less important.

Similarly, most renters perceived little difference in the prices charged by rental outlets with the difference between expensive and cheap videos being perceived as much less when paid weekly.

These two factors were thus less important because of the mode of acquisition.

With Format <sup>some</sup> renters did not have a choice, which should have reduced the importance of this factor. However they also considered the viewing of films important and were aware that many more films were available in VHS format.

If wishing their machines to be successful in the rental market manufacturers would therefore have to place extremely high importance on the design of the product. They would be

constrained by their licencing agreements and manufacturing patents in choice of format and in a number of cases would not be able to use brand image as a mix ingredient. Reducing price would cut into profit margins and is relatively less important than design. Thus, as identified in the qualitative interviews the looks of the machine is of major importance.

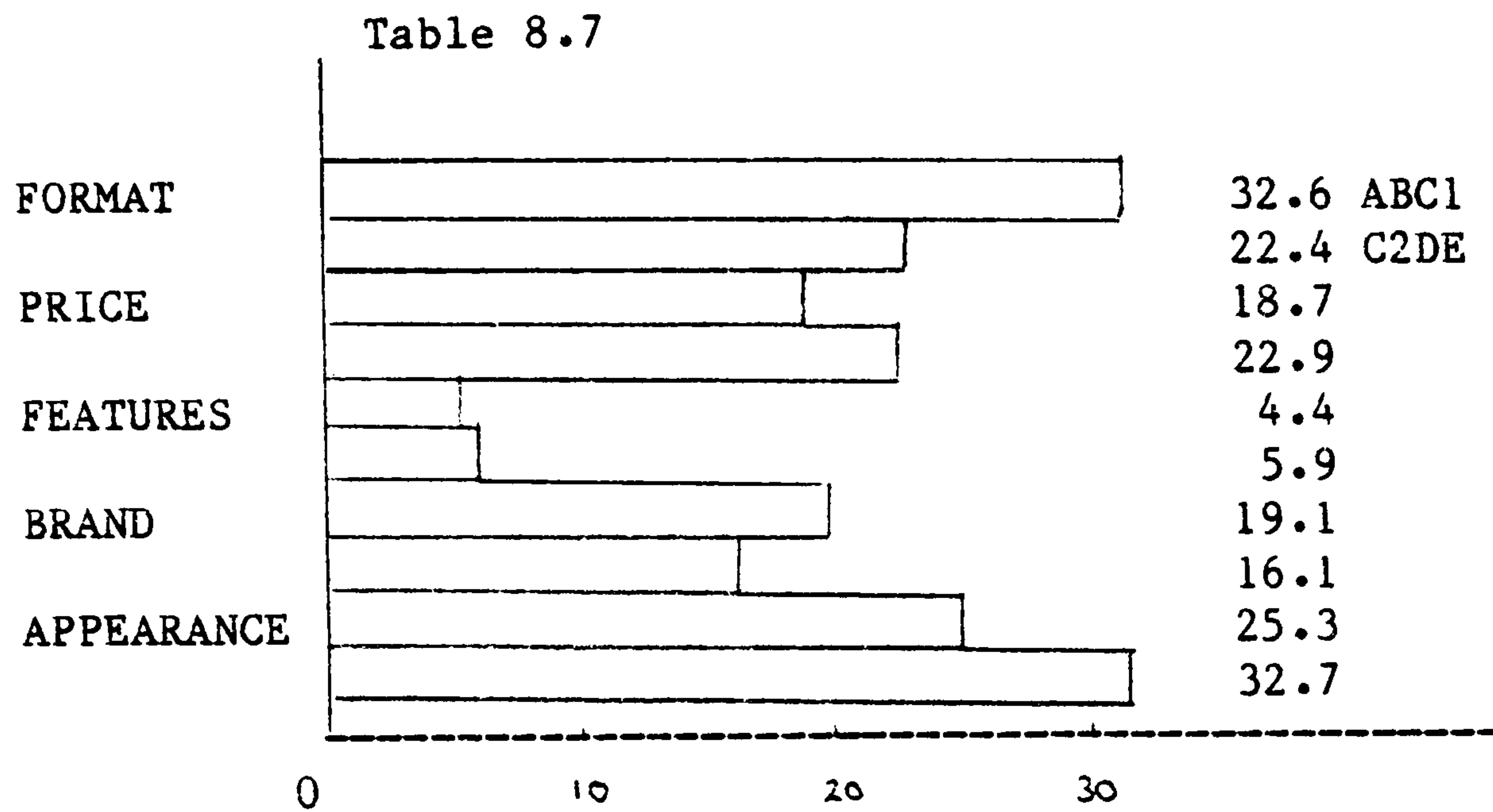
In the consumer market for bought machines the manufacturer has much greater flexibility. Four of the five factors are of almost equal importance allowing for a greater amount of compensation for negative factors. Thus, while the 'ideal' product is the same as in example 1 (with a utility of 4.698 in this case), a Beta manufacturer competing as in example 3 would have a utility of 1.966 and a better chance of being chosen against a VHS competitor who was deficient on Price, Brand or Appearance (with utilities of 1.944, 1.994 and 1.962.).

Given that Beta are a cheaper machine, and at one time were seen as being smaller and neater, this explains why the VHS format has not swept the market. Indeed, without the dominance of VHS in the rental sector, again explained by the utilities of renters, then the market share of the two formats might be completely different and reflect the European situation with Beta leading.



## Social Class

The second grouping we considered was between ABC1 social class and C2DE social class respondents, as shown in Table 8.7.



In this instance the ABC group give format the greatest weighting (32.6%) followed by Appearance (24.3%), Brand (19.1%), Price (18.7%) and Features (4.4%). By comparison the CDE group place most importance on Appearance (32.7%) followed by Format (22.4%), Price (22.9), Brand (16.1%) and Features (5.9%).

It is difficult to find an obvious solution to the differences between the two groups. The reversal of importance between Format and Appearance might be due to the CDE group having less room for the equipment due to smaller living accommodation which has caused a greater emphasis on neatness and size. It may be due to the bulky/untidy design being perceived as complex and thus rejected by less educated respondents, but both these explanations are purely speculation.

Similarly on Price and Brand a reversal takes place with the ABC group placing more importance on Brand, followed closely by Price, whereas the CDE group places Price third, and Brand a clear fourth. Thus while ABC people are prepared to trade off brand and price, CDE people are less willing and place greater importance on price. This would seem to reflect the likelihood of greater economic constraints facing the CDE group.

Features are again a very poor fifth for both groups as with the previous groups.

### **Conclusion**

The conjoint analysis was a second method of investigating the relative importance of the criteria used in the choice to acquire a video recorder. It is not possible to group the five factors into market, company or product criteria but it is possible to state that a narrow definition of product criteria (product attributes) has been found to be of minimal importance as hypothesised. This could be due to the nature of the sample who were nearly all first time renters and buyers and stated clearly in the qualitative study that they 'only wanted a basic machine'.

As found in the qualitative study the format of the machine was an important factor, although more so for Renters and ABC respondents than Buyers and CDE respondents. The CDE group placed price as above Format, as they often did in the qualitative

study.

Again as in the qualitative study Renters gave a lower importance to Price, while the CDE group and Buyers gave price a higher utility.

The qualitative study found design to be very important in choosing between products in the choice set, which had previously been limited by the application of non compensatory rules. The conjoint analysis assumes a compensatory decision rule and placed Appearance as being very important. The CDE group gave it highest utility with Renters and ABC group placing it a good second behind Format, while the Buyers, as earlier stated, placed appearance as having similar utility to the other three important factors.

Buyers gave Brand the highest utility of the four groups, again similar to the other utility scores, but generally it was third or fourth in importance.

Features had low utilities from all groups and had very little trade off potential.

Considering the lack of subtlety of the conjoint analysis, caused by only having two levels, it is remarkably similar to the previous qualitative findings. Further analysis of subgroups might lead to insights into the existence of other segments or clusters, and comparison of individuals utilities and interview transcripts might again gain insights. However the purpose of the

inclusion of the technique has been satisfied, in that it generally confirms the stage two qualitative study and has shown an alternative method of considering choice criteria.

As a brief technique to use at the end of a qualitative interview, or as a data collection technique in its own right, conjoint analysis has a lot to recommend it.

## CHAPTER NINE

### CONCLUSIONS AND RECOMMENDATIONS

This thesis was stimulated by the researcher's interest in the area of decision making. The marketing and consumer behaviour literature at the time was showing an increasing interest in the concept of the decision process, and a cognitive viewpoint was being adopted by authors in the relevant journals although the text books had yet to incorporate the new approach into their structure.

The objectives of the thesis thus started as an investigation into the nature of the decision process, focussing on the acquisition and use of information during this process. A series of research questions relating to the various stages and to the assumptions on which they were based were developed which was the basis for the research.

The focus of the investigation developed and changed as the thesis developed but remained similar to the original ideas, and resulted in the hypothesis and research questions listed in Chapter Five. A consideration of the nature of these research questions resulted in three separate research methodologies.

The investigation of variables related to the decision process was studied using a structured self completion questionnaire completed by a sample of 252. The detailed questions on the nature of the decision process was studied using focused interviews with a sample of 50 video recorder owners.

An aspect of the decision process, the way criteria are traded off in the final evaluation of the video recorder, was investigated by Conjoint Analysis, using the Monanova program.

We shall now summarise the major findings and discuss the conclusions and implications.

#### **Review of Independent variables relating to the decision process**

The first stage of the research investigated differences between video owners and non owners, and between the two main types of ownership, purchase and rental. It also studied correlations between variables.

We asked two open ended questions regarding the cognitive beliefs respondents held about video recorders, and their cognitive beliefs about the sort of person who had video recorders, to investigate the first two hypotheses.

As expected video owners made mainly positive comments, while non video owners made both positive and negative comments, although again positive comments dominated.

The positive beliefs related to the benefits of video recorder ownership, namely the convenience of watching when one wanted, following from the timeshifting facility and the ability to hire films for viewing at home.

The non video respondents expressed concern over watching too much television, the poor quality of viewing and the cost.

The comments thus mainly related to the effects of ownership on ones lifestyle, with the non video owners perceiving negative possibilities which were not mentioned by the owners.

Respondents were generally agreed in the need to be wealthy or have spare cash to have a video recorder, but did not link this to a specific social class.

The non video owners stressed rather more than owners the type of life style of a person who had a video, although they could not agree whether the stereotyped person was busy, out a lot or on shift work, or alternatively a non active house bound person with a family.

Video owners thought a typical person liked films and/or television, while non video owners, while agreeing, described the person as a t.v. addict. Non video owners were more likely to describe the typical video person as being 'trendy' or an innovator.

Finally, the major difference between the two groups was that 40% of statements by video owners claimed there was no stereotype video person, while only 16% of non video responses claimed this. Thus while video owners generally are more favourable towards video recorders and have a generally more favourable impression of themselves, as predicted, the two groups seemed to have the same basic beliefs. Non video people expressed awareness of negative aspects of video ownership, and potentially negative images of video owners, but these did not dominate.

While the two questions can be criticised for being exploratory as no probing was possible the results support previous research findings and suggest a generally favourable set of beliefs.

The next set of hypotheses were related to the level of knowledge, experience and self confidence which existed in the population, and whether this would vary between owners and non owners.

While we predicted knowledge and experience would be low we were surprised as to how low it was with 82% of non video owners being below the mid point on a five point scale. Video owners had approximately a normal distribution with 35% of respondents being below the mid point. The experience level was similar to knowledge with 40% of video owners being below the mid point and 85% of non video owners. We also predicted a positive relationship between the two measures and this was found ( $R=0.7$ ).



It should be remembered that these are post purchase measures for video owners, and relate to their perception of knowledge and experience rather than an objective measure of actual knowledge and experience. However, the results show less knowledge and experience than one might expect suggesting low brand comprehension and poor knowledge of product attributes. This would tend to make communication appeals based on differentiation of the product, common in the mature stage of the product life cycle, unsuitable and suggests the product is still in the early stages of the life cycle requiring campaigns aimed at increasing knowledge and comprehension, (the cognitive stage of the C-A-C sequence).

As the product was reasonably innovative it was thought that owners were more likely to be early adopters and we therefore investigated some of the characteristics related to this, such as Generalised Self Confidence (Self Esteem), Specific Self Confidence and Opinion Leadership, as these had also been shown to relate to search behaviour during the decision process.

While we found differences in the degree of self esteem between men and women (as found by others) no difference existed between video owners and non video owners, or renters and purchasers.

Specific self confidence was measured on a 5 point scale and a distribution similar to that of knowledge and experience was found. Video owners had a normal distribution slightly skewed to

the left, while 81% of non video owners were below the mid point, which was statistically significant. However, no significant difference existed between renters and purchasers.

This would tend to confirm our previous conclusion that a high information campaign is needed to increase the potential owners ability to judge the various products. This is especially so when one considers the high correlation found between specific self confidence and experience (0.6) and knowledge (0.8).

The lack of difference in self confidence between renters and purchasers is not as predicted. We thought that renting would reduce the need for information search and evaluation of individual brands and thus renters would be less sure of their ability to judge the product. The explanation could be that renters were initially lacking in specific self confidence but that learning has taken place with usage to bring them to the same position as purchasers. This could not be detected with a post facto measure of this type.

A relationship existed between specific self confidence and generalised self confidence but at a very low level (0.12).

Opinion leaders differ from the general public in thier use of information sources, and we predicted that video owners would have higher opinion leadership than non owners. We did not predict direction with purchasers and renters merely that they

would differ in their degree of opinion leadership.

While we were correct in our first prediction with 23% of video owners and 5% of non owners being opinion leaders, no difference was detected for renters and purchasers.

We also tested for correlation between opinion leadership and other relevant variables and found significant correlations of 0.6 for specific self confidence, 0.6 for experience, 0.6 for knowledge but only 0.15 for self esteem.

A necessary precondition for becoming an opinion leader (competence in the field) seems to have been fulfilled but the lack of distinction between renters and purchasers suggests that opinion leadership may have developed after purchase rather than before. However the distribution of scores suggests that while video owners may talk about their purchase more than non video owners they have not the high degree of opinion leadership one might have expected.

Another major factor related to search behaviour is Risk Perception. We predicted that buying a video recorder would be seen as a high risk situation and that renters would perceive more risk than purchasers (as well as owners perceiving less risk than non owners).

Contrary to expectations buying a video recorder was not seen as

being a high risk, with approximately 97% of respondents falling below the mid point and a substantial number believing it was not risky at all.

As predicted video owners perceived less risk than non owners but our expectation that renters would perceive more risk than purchasers was only supported on one of the risk perception measures.

This perception of low risk may explain our finding of low knowledge and experience. In a high risk product one would expect search to take place to gain product information, as information seeking is a recognised risk reduction strategy, but this need not take place in this low risk situation. Similarly word of mouth is less important with low risk products reducing the degree of opinion leadership one would expect to find.

A low correlation of 0.45 was found between our two measures of risk, suggesting care should be taken when comparing research results in this area.

We further investigated the nature of risk by studying the 5 dimensions measured in our composite question. The most important dimensions were financial risk and performance risk, followed by physical risk and psycho/social risk. However the only dimensions which discriminated between owners and non owners were financial and psychological risk.

We expected risk to be correlated with specific self confidence, experience, knowledge and esteem but in all cases the correlation was low, although in the direction predicted. This may be due to the low risk perception, and a stronger relationship may exist in high risk situations. However, considering that specific self confidence is often taken as the opposite of uncertainty we would have expected a stronger relationship than  $-0.9$  and  $-0.11$  for the two measures.

The degree to which others were involved in the decision process was studied using two simple questions. The majority of respondents (73%) thought there had been or would be involvement with others in the decision. This was normally the spouse (63% of cases) although children (23%) friends (17%) and relatives (12%) had a role to play.

These findings suggest that the search behaviour and deliberation during the acquisition of a video recorder will be less than expected when the product was chosen for study.

While low existing knowledge and experience exists for non owners, owners do not generally perceive themselves as having the high knowledge and experience one might expect. Similarly specific self confidence is low for non owners but is not that high for owners. The opinion leader scores seem to suggest owners will discuss their acquisition more than non owners, but only 23% qualify as opinion leaders. The high involvement of family

members seems to suggest others will be involved in the discussion, which should lead to deliberation and search but the low risk perception suggests this will be limited.

The problem for marketers is that if low risk is perceived and low information search and deliberation takes place then the opportunities to influence the decision are limited. If low risk results in low involvement the individual will not consider it worth the effort of extensive search and deliberation, and will not make use of marketer controlled information sources unless they are simple to use and comprehend. Thus image campaigns in the mass, rather than specialised, media and Point of Sale displays will be of importance.

The lack of difference between renters and purchasers was unexpected as it was thought that the mode of acquisition would differentiate respondents on the variables tested. While this was the case for one measure of risk, with renters perceiving more risk and thus reducing the consequences of acquisition this was not true for other variables.

To test whether this was a consequence of the research methodology a longitudinal study would be needed to measure the same individuals both before and after acquisition. Alternatively greater probing on these variables would be required to obtain a self report of knowledge etc prior to purchase, and changes which had taken place. This was done in the second stage of the study which is reviewed next.

## Review and analysis of Decision Process

The second stage study interviewed 50 individuals, both renters and purchasers, using an interview guide which lead them through the decision process and covered the areas of interest.

### Problem Recognition

One of the clear findings of the second stage study was the distinction which should be made between premarket search and market search. The premarket period consisted of a long consideration of the various benefits and disadvantages of obtaining a video recorder followed by a shorter period when the actual model of recorder was considered. Renters and Purchasers were similar in the amount of time spent in the premarket period (varying from 1 day to 3 months). The market period for buyers was generally between 3 weeks and 2 months while approximately half of the renters only took 1 day choosing the video.

The amount of deliberation varied both in the period of time over which it was spread, and its intensity. Deliberation ranged from a full formal search and evaluation to behaviour which superficially resembled an impulse purchase.

It was considered that while limited consideration often took place, or the final decision was sometimes made swiftly following a change in market conditions, in very few situations did no deliberation take place prior to purchase. Instead their

deliberation and search was often casual and informal and had lead the respondent to conclude that further search effort was not worthwhile.

A video recorder was seen as a luxury item, of low risk, and more thought was put into whether to obtain a video than which video to acquire.

Factors delaying the decision were lack of finance, lack of perceived need, a negative evaluation of the costs and benefits, others goods being higher up the heirarchy of purchases, a belief that that the market would change or a need to resolve family conflicts or other worries. The removal of a delaying factor thus resulted in a decision to buy or rent.

A precipitating factor sometimes prompted action for CDE buyers but was not of importance to the other groups.

Prepurchase motives were similar to the cognitive beliefs uncovered in the first stage of the study. The time shifting facility and the ability to play pre-recorded films was obviously of major importance. The video recorder brought convenience, entertainment, economic savings and a better choice of programmes. Family pressure was often important as a stimulus and as an influence, as were friends who had videos.

Knowledge was perceived as being extemely low, both prior to purchase and at the time of interview. However, while knowledge



of specific attributes, prices and brand names was often low. Respondents had a general knowledge of the benefits offered by the product class and also a knowledge of market conditions. Reasonable experiential knowledge also often existed.

Respondents in general did not consider the choice of video recorder a difficult one, although those who did had shopped more. The perceived risk was low but some respondents had used risk reducing strategies, such as renting, extended warranties, to ensure this was so.

#### Rent/Buy Decision

A 1/4 of buyers had considered renting but most buyers disliked the general idea of renting, objected to the commitment necessary and often equated rental with Hire Purchase. They considered renting poor value for money, and were not concerned about breakdown or obsolescence.

Half of video renters also rented their television, and a 1/4 had considered buying a video recorder. The renters had almost opposite views regarding obsolescence and repairs. The lack of sufficient cash to purchase was often a reason for renting, although hire purchase was not popular. Renting was often seen as a trial to be followed by purchase if satisfactory experience was gained.

## Search Behaviour

A great deal of information acquisition was of the passive, or incidental nature, especially in the premarket stage. A number of respondents never felt the need to progress beyond this informal search mode and often had limited knowledge of alternatives and choice criteria. The formal search often consisted of the actual trip to purchase a video and tended to take two approaches. Some respondents, after a casual and limited search, spent a short period shopping, often only a day, but went into a number of shops and considered a number of different videos. The other formal search strategy tended to use differing information sources and deliberation over a period of time. In the first case the choice available at the shop was a major influencing and limiting factor. In the second the respondents tended to have much clearer criteria which had to be satisfied and in some cases had identified their preferred choice and could be considered 'pre sold'.

Formalised search procedures were the exception rather than the rule, and the rich information environment normally resulted in sufficient information being gathered by undirected and conditioned viewing.

## Information Sources

The information source most frequently used and which seemed to have the most influence was friends and relatives. This was especially true in the premarket stage when the decision to

obtain a video recorder was being made and information on the market was being gained.

Shopping was the next major source of information. Just under half the buyers and just over half the renters gave window shopping as a method of gaining information, and this was especially true of the CDE Renters. Window shopping often gave sufficient information for the respondent to feel no need to talk to shop assistants. This fitted in with the casual approach to information acquisition, windows could be looked into while passing, friends could be chatted to in casual conversation, without the need for specific information gathering.

This phase of the shopping was often used to create the evoked set of alternatives and respondents did not seem to like a more formal approach to shops until they were ready for the final choice. The amount of shops used for the final choice was often only 1 or 2. Buyers often shopped around between 2 - 10 shops, renters rather less. When it came to the actual decision to buy there was little difference between the two groups with the average of shops considered at this stage being 3 - 4.

Shop assistants were generally not consulted until the final stages of the decision process as they were generally seen in a negative light. It was thought they were biased and lacking in know<sup>ledge</sup>. When this was not the case they often had considerable influence.

## Perception and use of Media

Specialist magazines were not of importance, except to some ABC buyers. They were thought to be too detailed and technical.

Advertisements in newspapers were mentioned by about half of the respondents across all groups, while magazine advertisements were seldom mentioned. Little real use of advertisements was made and they were not seen as being that useful except to obtain an idea of prices.

Leaflets were also mentioned, mainly by the buyers who collected them while shopping. They were often only scanned or used as 'aide memoires'.

In over half the total cases other people were involved in the decision to buy. Spouses were almost always involved in the decision to get a video recorder and often in which recorder to have. It was frequently seen as a joint purchase, benefitting the whole family.

## Evaluation Process

It was suggested that the purpose of search was to gain the knowledge necessary to allow a decision maker to clarify a problem, recognise potential solutions and create criteria for judging between the potential solutions. We further suggested that this was a sequential process following rules of

simplification which would be reflected in the nature of the evoked sets formed.

We found that such a sequential process was taking place. The Awareness set was often large and most buyers were able to say they had seen 10 or more, often 20 to 30. The Consideration set was also often in double figures, although less than the Awareness set. The Choice set was never above 6 and was generally 3. Renters generally had smaller Awareness, Consideration and Choice sets.

Information did seem to follow a process of clarifying the problem and considering the need for the product. This generally took place in the pre market stage. The Consideration and Choice stage was normally over a shorter period of time and consisted of the actual process of selection and evaluation.

#### Decision Rules

The decision rules used during the decision process changed over the process. Initially a conjunctive rule was used to reduce the size of the sets, and simplifying strategies were used whenever possible. Satisficing, rather than optimising, behaviour was followed by virtually all respondents. A 'weir effect' took place with hurdles being erected over which brands must pass to be considered further. The two major hurdles used to reject models were price and/or format.

In the choice stage the criteria used were Format, Price, Image, Features and Style. The VHS format was considered to have a greater range of prerecorded films, but Beta was cheaper and possibly of better quality. Respondents only wanted a 'basic' machine and were not prepared to pay more for features seen as 'gimmicks'. Prices were not considered to vary much between brands or stores, although a price cut was often the reason for choosing a particular store. Videos were not seen as differing much, except on the general design. Respondents clearly wanted a compact neat design which was difficult to achieve with a sophisticated machine. Quality and reliability were generally not a worry, a well known brand name being trusted to ensure machines were adequate on this.

The choice process thus often consisted of selecting products of a certain format and price range, and then within this reduced choice set such things as brand image and styling became important. Most respondents wanted a clean uncluttered design from a recognised company. The design of the machine, especially with regard to buttons, affected their perception of complexity and neatness. Features were seen as gimmicks for which it was not worth paying extra.

The product was a low involvement purchase and most consumers did not consider it worth any high degree of cognitive or behavioural effort. As long as a satisfactory level of performance was achieved then they were happy with their choice. It was not

considered to be worth the extra effort to obtain a cheaper, better quality or in some other way superior product choice.

The easiest method of information acquisition was used and information was collected only to the point necessary for a choice to be made. Simplifying strategies were used to make the choice as easy as possible, especially in the application of decision rules. The actual video chosen was not considered important as long as it 'did the job' and 'looked nice'.

The conjoint analysis study confirmed the relevance of the criteria. While the rank order varied between the groups, generally Format and Design were the two major choice criteria. Brand and Price were next although their importance was less for renters than for buyers. A consistent finding was the extremely low value given to the addition of extra features, a sophisticated machine being only slightly preferred to a basic machine.

#### Overall Review and Discussion

At the beginning of our thesis we stated that while rationality requires perfect knowledge, knowledge limits rationality in many ways. Thus to understand a consumers decision process the researchers must investigate the knowledge which exists about the consumption problem, how the consumer acquires this knowledge and his preference for different types of knowledge or information sources.

We found that the knowledge held about video recorders was extremely limited. Both the quantitative measure from the stage one study and the qualitative interviews suggested that consumers know very little about the video recorder market. While this might have been expected for the non video owners who had no reason to gather the information it was expected that in gaining information about the decision video owners would have gained more knowledge than they had.

The knowledge which did exist had generally been gathered in an extremely casual manner, which has been called 'incidental learning' or 'passive search'. The preference for information sources was thus for the most easily available such as W.O.M. and window shopping. The type of information gathered was impressionistic, relating mainly to general reliability (based on brand name) and the design/looks of the model.

In Chapter Two we reviewed the various models of buyer behaviour and concluded that decision making was a sequence, or process. Our study has confirmed this, although the usual Cognitive - Affective - Conative sequence is much too simplistic to adequately describe the decision process we uncovered.

Ray and others had suggested other learning hierarchies based on low involvement learning so we reviewed and investigated the nature of this involvement. Our approach did not allow us to adequately measure the C-A-C elements to state the nature of the



sequence but some aspects of the low involvement hierarchy seemed to be relevant. This hierarchy most often occurs when there are minimal difference between alternatives or when low involvement makes actual differences unimportant to the decision maker, which was the situation in the instance investigated. The sequence in this case seemed to be awareness, minimal comprehension and then purchasing action. Attitude change seemed to be taking place as the respondent gained information but sufficient knowledge did not exist for strong attitudes to exist. Instead motives seemed to play a part in directing behaviour at a general level.

We found many respondents who seemed to be following this sequence. The respondents were not particularly committed to their brand selection and in many ways the normal selective processes were relatively inoperative. As Robertson predicted information was passively accepted without undue resistance and without message evaluation. The ownership of the video coincided with a period of evaluation and confirmation of benefits, especially in the case of rental which was sometimes seen specifically as a trial period.

The respondents did not consider this a difficult purchase, and spent most time over whether to obtain a video recorder at all rather than which video was best suited to their needs. This was undoubtedly related to the low risk perception which existed, and the availability of risk reducers such as rental and extended warranties.

The importance of involvement was noted as different communication strategies are needed to cope with the different situations of High or Low involvement. The predictions of low involvement are that advertising alone can move the consumer to trial and there would be no two step flow. We did not find this. The mass media was of extremely limited importance at any stage of the decision process, and while opinion leadership was not of major importance it did operate. The first stage study noted the existence of video recorder opinion leaders and the second stage study noted the importance of interpersonal influence.

The prediction of low involvement decision making, that a satisficing decision would be taken was found to be true. As predicted by the theory our respondents often used price and visual aspects of the purchase as a satisficing criteria.

While these aspects of the decision seem to relate to low involvement decision making it would be wrong to assume that no cognitive processes were in operation. While satisficing behaviour was clearly taking place, it was still taking place within a decision sequence. The decision was not made with a lack of evaluation which would follow from the choice of a 'true' low involvement product, when evaluation takes place after purchase and affects future repurchase. Instead the evaluation took place following the assumptions of satisficing behaviour reviewed in Chapter 3.

Respondents frequently reduced the need for 'new' information by transferring previous knowledge and experience. Thus, experience with buying and using tape recorders, television, and other electrical equipment was considered relevant to this choice. As the decision was not considered a complex or difficult one the complexity and depth of their search and evaluation was also limited.

To simplify the choice and reduce cognitive stress 'choice heuristics' were used to simplify the decision process. As predicted these were to use existing knowledge about alternatives and criteria whenever possible. Their search was limited to that necessary to find a satisfactory solution, and their 'goal' was simply to meet minimum levels on a limited set of criteria.

One of the major features of this simplifying behaviour is the use of a phased sequence, rejecting alternatives until a sufficiently small set exists to be studied in greater depth. This was found in the stage two study. No solution to the purchase problem existed in memory as an initial evoked set could not be formed and choice criteria did not exist. However, the initial awareness set could be formed quite simply by window shopping. Two criteria were then frequently used (Format and Price) to reduce the awareness set to a consideration set and then choice set. It was not until a choice set existed that any detailed evaluation took place. If only one product was left after the previous application of criteria then this product

would be accepted without any further consideration.

If a choice set existed then other criteria came into operation. The major determining factor at this stage was the compact, neat looks of the machine. An interesting finding was the extremely limited importance placed on product features or attributes, supported by both the qualitative study and the conjoint analysis.

We had previously considered the relevance of objective and experiential learning and the classification of information into our search rule ( $SB = PK + APS + C_p + C_s + C_m$ ).

Our finding was that objective information gathering was extremely limited and relied mainly on face to face transmission of other peoples experiences and opinions. Experiential learning consisted of actual usage of video recorders at work situations, or around friends, and also shopping to actually see the product. (It was not considered necessary to see the product in operation however as it was assumed all models would perform similarly.)

Information was gathered to clarify the problem (PK) but this was done mainly through incidental learning in the premarket search stage. The selection of possible alternative product solutions (APS) was also often done at this stage. This was sometimes sufficient to create a Consideration as well as a Awareness set, and sometimes the respondent was able to reduce the alternatives sufficiently for them to be considered 'presold', with only one

product in the choice set.

For this to happen the consumer had to be able to apply criteria to reduce the sets. Criteria was generally gained on the market at the same time as the problem was being clarified, and were used to decide on the level of choice difficulty perceived. Company criteria were not as important as is frequently the case in industrial studies. The company name was used as an indicator of reputation in its widest sense. An unknown company was at a disadvantage, as no prediction could be made about its after sales service, spares situation or reliability. Unless previous experience with a company had been unfavourable, a well known brand meant these worries could be ignored.

Product criteria were generally created later in the decision process. As stated, price and format were often used as 'weirs' to limit the choice set. They were then used in the same way as other criteria, such as design and product attributes, to make the final choice.

#### **Implications of Findings for Management**

The implications of these findings for management is that care must be taken when predicting search and evaluation based on ones assumptions on what is high risk and what is not, or which decisions are likely to be high involvement or not. While general guidelines can be accepted, relating to the cost of the product, its social importance, its visibility, the degree of commitment

involved etc. these will be subjective interpretations of the consumer.

Thus, two products which seem to be similar, (in terms of price or product class) may be perceived differently by consumers who will follow completely different decision processes.

In this case first time buyers of an expensive product in the initial stages of the product life cycle did not follow the extensive formal search and evaluation which was expected, and which is identified with the full learning hierarchy.

However, most advertising or communication campaigns, especially for products of this type, are based on such a learning hierarchy which suggests the campaigns are not as efficient or effective as they might be.

On the basis of this study marketers have a difficult task facing them. Consumers made little use of marketer controlled information sources, suggesting that conceptions about the importance of the media may be false. Awareness and interest was not stimulated by advertisements but by talking to friends and colleagues. The finding that respondents were not willing to expend energy to gather information means that specialised print media, or high information advertisements, are unlikely to be read. Awareness and interest can best be stimulated by creating an information environment which stimulated people to talk about the product.

The use of posters with clear imagery or message should be worthwhile as this method of information acquisition would fit in with the passive or incidental learning which was taking place. The daily newspaper can be used as a medium for high information campaigns to attract the few buyers who conducted formal search but would generally not be effective. The poor quality of print and lack of colour suggest it would not have the impact necessary to gain attention or keep the consumers interest. The only exception to this is the 'Comet' type of catalogue of products which would be useful for consumers in the final stages of the decision process, but would benefit the store not the manufacturer. Colour magazines could be used as these can have greater impact, but the images should be similar to the posters e.g. simple and striking.

Television would be worth considering in that it has the capability of showing the benefits of the product (i.e. families enjoying a good film, watching a late night movie during the day) and showing the clean, compact design of the recorder and is a medium directly related to the product. Television is also very successful in gaining attention in a passive manner and is frequently used to advertise low involvement products.

The findings of the research indicate the danger facing manufacturers who follow a production orientation in their communication campaigns. Consumers did not consider product attributes until the final stages of the decision process and

then gave them low utility.

The study stresses the importance of the premarket stage in creating the cognitive structure and mental set within which the choice progressed and the decision was made. The manufacturer must ensure his product is included in the awareness and consideration set, which is created without reference to product features, during this stage.

While in some cases the respondents were presold and went to the shop specifically for one product in most cases the choice was limited to those products offered by a store. Thus the distribution network for the manufacturer is of extreme importance. This serves the function of promoting the product to those consumers who are window shopping and also ensures its inclusion in the consideration set of consumers who use shops as their main information source in the choice stage.

The manufacturer must therefore concentrate on the criteria relevant to the consumer which are format, price, brand name, style and availability. High information campaigns are not required to bring these elements to the attention of the consumer.

Another finding of importance is the use of satisficing criteria and conjunctive decision rules. Manufacturers should not concentrate on having the lowest price, or the most well known



brand name, as this is unnecessary. It is important not to obtain a negative rating on one of these criteria as this would result in the product being rejected, despite possible strengths elsewhere. Manufacturers must find the minimum level the consumer is willing to accept on any criteria and ensure the product does not fall below this.

A general conclusion of the study for manufacturers is that in many ways they should treat their product as a convenience/shopping good rather than a specialist good. Similar to a number of convenience goods they should ensure the product is easily available, well known, well packaged and designed. As with a shopping good they should ensure the product is adequate for its task, meets the relevant criteria and is sold by knowledgeable and skilful salespeople.

The first elements should ensure the product is included in the awareness and consideration set, the second elements should ensure it will reach the choice set. At this stage the product must stand or fall on its own merits.

#### **Future Research Possibilities**

Our study is based on the belief that consumers purchase problems can be placed upon a continuum from Extended Problem Solving to Routinised Response Behaviour, and that search and evaluative behaviour will vary depending upon the consumers perception of the problem.

Our study has shown the difficulty involved in predicting which

purchases will be perceived as "difficult" or "risky" decisions requiring cognitive and behavioural effort to adequately solve them. While some attempt has been made to determine the predictors of this classification they are often tautological and cannot be adequately operationalised. Our study would suggest that while ambiguity, risk level, knowledge and comprehension are all elements of this classification they are not in themselves sufficient and that an emotional as well as merely cognitive measure must be employed. A recent (1986) article in the Journal of Consumer Research suggests an approach by creating a measure of Involvement which would seem to provide help in this area. Further research to test this measure, and to refine it for our purposes would seem to be a worthwhile area of research.

The importance of this can be seen in our findings on the use made of information during the decision to acquire a video recorder, the search effort expended and choice criteria and rules used. Those who considered the choice important and difficult tended to follow formalised search and choice procedures. The majority of respondents used satisficing procedures to limit search and evaluation and made little use of commercial media sources.

We found that while many respondents were not "involved" in the decision they were still following a "rational" decision sequence, but one which followed the rules of "bounded rationality and satisficing behaviour". It is important to distinguish this sort of behaviour from true low involvement

behaviour where minimal or no evaluative processes take place until after purchase. In the latter instance a completely different paradigm needs to be applied to adequately explain and predict behaviour.

A further area of research worthy of study is to investigate the nature of the information environment and incidental learning. We found that there was a premarket and market search stage and that in the premarket stage important decisions were being taken which effected the final choice. The information acquisition in this stage was passive and incidental, with almost a process of "osmosis" taking place with respondents absorbing information and impressions without effort or conscious evaluation. More work is required on how these impressions are built up and the importance of personal influence in this process. Perhaps a sociometric or longitudinal study following the growth of this information environment, and consumers interaction with it, is required.

Our study also emphasises the importance of taking a wider approach to the study of consumer choice criteria than a mere listing of product attributes. We found these were the least important aspect of the decision process with subjective elements such as design and "trust" being of major importance.

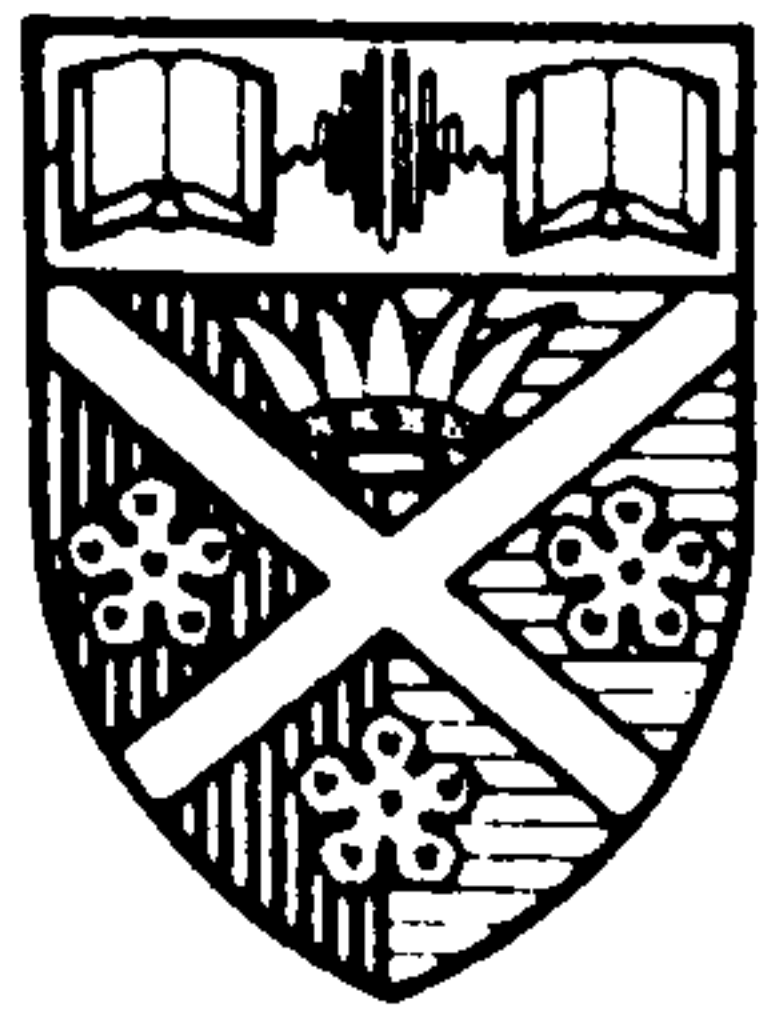
We also found that a two stage decision was taking place. The decision whether to buy a video recorder at all was the major decision followed by the second, and relatively less important

decision of which brand to buy.

All of these points emphasise the importance of researching the initial stages of the decision process rather than merely the final stages when a choice set has been created and the actual choice is being made. This would require a longitudinal study of a particular products diffusion and acceptance by the market, or else a general broad study into the nature of perception and attention. The difficulties of this is no doubt the reason such research is talked about rather than undertaken.

## APPENDICES

1. Covering letter
2. Questionnaire
3. Interview Guide
4. References



University  
of Strathclyde

Professor Michael J. Baker TD BA BSc(Econ) DBA FInstM  
Professor J. M. Livingstone MA MSc PhD  
Visiting Professor A. C. Emmerson CBE MA

Department of Marketing

Stenhouse Building, 173 Cathedral Street,  
Glasgow G4 0RQ Tel: 041-552 4400

Dear Householder,

You may have noticed in the newspapers the interest being shown in new developments in communication methods and television. This research is aimed at finding out your feelings, attitudes and intentions about one of these new developments - video recorders. It doesn't matter whether you own a video recorder or not, your answers are of interest and are needed if the study is to be representative.

A researcher will call within the next two or three days to collect the completed questionnaire and help with any problems you may have. As you will see, the questions have been made as easy to answer as possible, most requiring only a tick.

The research is completely confidential and is part of a doctoral programme within the University of Strathclyde. Your help would be greatly appreciated and may I thank you in advance for your co-operation.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Keith P. Fletcher'.

Keith P. Fletcher.

P.S. Even answering the first few questions would help.

This questionnaire has been designed to be answered as easily as possible; most questions require only a tick. Please spare a few minutes of your time and complete as much as possible. Your answers and views are important whether you own a video or not.

1. Do you have a colour TV in your home at present?  Yes  No  
 If Yes, is it rented, or did you buy it? ...  Rental  Bought  
 Please give make:
2. Do you have a video recorder in your home at present? .....  Yes  No  
 Go to Q4
3. If Yes (a) Is it rented or did you buy it? .....  Rented  Bought  
 (b) How long in months have you had it?.. --- Months  
 (c) Please give make and, if possible, model number:  
 (d) Is it the first machine you've had?..  Yes  No  
 (e) IF RENTED, do you plan to purchase a replacement machine within the next year, or do you think you'll continue renting? .....  Purchase Replacement.  Continue Renting
4. IF YOU DON'T HAVE A RECORDER, are you likely to get one in the next 12 months? .....  Yes  No  
 If Yes, are you more likely to rent or buy?..  Rent  Buy
5. Please write down below what sort of things come into your mind when you think about having a video recorder.
6. What sort of person do you think has a video recorder?

- 7a. In general, how confident are you about yourself as a judge of video recorders? .... Highly      Not at all
- b. How much experience have you had using this sort of product? ..... Great deal      None at all
- c. How much knowledge or information do you feel you have about video recorders?..... Great deal      None at all

The following is a questionnaire to see how risky you think Buying a video recorder is. Please tick the first scale to say how likely you think the statement is to happen; and then tick the second scale to say how important it would be for you if it did happen.

- 8a. You could lose money on a video recorder because of it needing repair and high maintenance costs. Very likely      Not at all likely      Very important      Not at all
- b. Friends and colleagues would think a video recorder wasn't right for me, or was unsuitable. Very likely      Not at all likely      Very important      Not at all
- c. A video recorder wouldn't fit in with my self image (i.e. the way I think about myself). Very likely      Not at all likely      Very important      Not at all
- d. A video recorder would have something wrong with it or not work properly. Very likely      Not at all likely      Very important      Not at all
- e. A video recorder may be unsafe or a danger to use. Very likely      Not at all likely      Very important      Not at all
9. On the whole, considering all sorts of factors combined, about how risky would you say it was to buy a video? ..... Very Risky      Not at all risky.



The next questions are interested in the amount and likelihood of your having conversations about video recorders.

- 10a. In general, do you like to talk about video recorders with your friends? ..... Yes  No  Don't know
- b. During the past 6 months have you talked about video recorders to any one?..... Yes  No  Don't know
- c. Compared with your friends, are you more likely, about as likely, or less likely to be asked for advice about video recorders? ... More likely  Less likely  About as likely
- d. Do you have the feeling that you are regarded by your friends as a good source of advice about video recorders? ..... Yes  No  Don't know
- e. If you and your friends talked about video recorders, what part would you be most likely to play?
- Would you mainly listen to your friends' ideas? .....  Don't know
- OR
- ...would you try to convince them of your ideas? .....

When considering video recorders sometimes other people are involved in collecting information, or helping to judge the products, or helping in the decision to rent or buy.

- 11a. If you were to consider video, or when you did consider video, would/were any other people involved in the decision? ..... Yes  No

- \* b. If Yes, who were they and how much were they involved?

	Involved a great deal					Not involved at all
Wife	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Husband	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Child	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Relative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Friend	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

These questions are about your general approach to life. Please answer every question, but do not think too much about any individual item. Your general impressions are needed.

- |   |                  |   |                   |
|---|------------------|---|-------------------|
| 12. How often do you have the feeling that there is nothing you can do well? .....                                  | very often       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | practically never |
| 13. When you have to talk in front of a group of people your own age, how afraid or worried do you feel? .....      | very afraid      | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | almost not at all |
| 14. How often do you worry about whether people like to be with you? .....  | very often       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | practically never |
| 15. How often do you feel self-conscious? .....   | very often       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | practically never |
| 16. How often do you feel that you have handled yourself well at a social gathering? .....                          | very often       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | practically never |
| 17. How often do you feel that you can do everything well? .....  | very often       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | practically never |
| 18. How often do you feel that you are a successful person? .....   | very often       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | practically never |
| 19. How often are you troubled by shyness? .....  | very often       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | practically never |
| 20. When you talk in front of a class or group of people your own age, how pleased are you with your performance?.. | very pleased     | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | almost not at all |
| 21. How comfortable are you when starting a conversation with people you don't know? .....                          | very comfortable | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | almost not at all |
| 22. How often do you feel inferior to most of the people you know? .....  | very often       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | practically never |
| 23. How confident are you that your future job or career is assured? .....  | very confident   | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | almost not at all |
| 24. Do you ever think that you are a worthless individual? .....  | very often       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | practically never |
| 25. How much do you worry about how well you get along with other people? .....                                     | very often       | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | practically never |
| 26. When you speak in a discussion, how sure of yourself do you feel? .....   | very sure        | <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | almost not at all |

27. How sure of yourself do you feel when among strangers? ..... very sure  almost not at all
28. How often do you feel that you dislike yourself? ..... very often  practically never
29. How confident do you feel that one day people you know will look up to you and respect you? ..... very confident  almost not at all
30. Do you ever feel so discouraged with yourself that you wonder whether anything is worthwhile? ..... very often  practically never
31. In general, how confident do you feel about your abilities? ..... very confident  almost not at all

These details are needed to classify the responses. They will be completely confidential.

Please tick the level of education you reached.

- secondary school.
- sixth form.
- undergraduate
- postgraduate.
- professional qualification (by exam)

What age group are you in?

- 16-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+

Are you Male  or Female

Please state occupation or job title of principal wage earner in household.

THANK YOU FOR YOUR CO-OPERATION.

## VIDEO STUDY TOPIC GUIDE

1. Introduce research and establish rapport. Obtain basic details on name, age, when video acquired.

2.1 General discussion to obtain brief details of time scale of choice process and historical account.

- When did they actually get a video?
- When did they first think about getting a video?
- When did they actually start shopping or looking for information?

2.2 Investigate factors prompting action, any critical factors.

- Why did they decide they wanted a video?
- What prompted them to buy a video? (e.g. olympics, special offer)
- What delayed them getting one earlier?

2.3 Investigate Deliberation.

- How much deliberation did they think was needed?
- How much of an impulse buy was it?
- Compared to other purchases, how typical was this choice?
- What knowledge, experience, existed prior to purchase?
- How much effort compared to other products?

Probe: Awareness of trends, developments in market, perception of stability of market, risk involved, experience.

3.1 Alternatives considered:

- How many videos were they aware of?
- How many videos did they actually consider?

Probe level of knowledge, predispositions.

### 3.2 Factors influencing choice, specific motives, choice process.

- What made them chose the one they did?
- What did they like about it?
- What did they dislike about it?
- Why did they reject/not consider other makes?
- Did they see any differences between brands?

Probe: Perceived strengths and weaknesses, predispositions, what differentiated brands.

How did they actually make the choice?

Role of product features; company features etc.

Any compensation taking place?

What limited choice, if anything?

### 4. Discussion of information sources

- What were information needs during choice process.
- Role and importance of information sources, personal and media.
- Breadth and depth of search.
- How were alternatives identified and criteria formed?

#### 4.1 Information needs

- Did they know what to look for in a video.
- Did they easily find the information they wanted.
- Was there any information they couldn't obtain.

#### 4.2 Information sources

- Where did they gather information about prices etc.
- How did they find out what alternative systems there were.
- Did use vary over time

Probe: How important, how helpful, what sort of information from each source, personal & non-personal.

#### 4.3 Were any others involved in the decision to buy

- at what stage
- doing what

### 5.1 Rent/Buy Decision

- Was alternative considered, in what depth
- What are the advantages/disadvantages of renting/buying.

## REFERENCES

- Aaker, D. A., & Jones, J. M., Modelling Store Choice Behaviour, Journal of Marketing Research 1971, vol. 8 February, pp38-42.
- Aeyelts Averink, G. J., Marketing Models for Consumer Durable Products, ESOMAR Congress Papers 1970, pp155-180.
- Aguila, F. J., Scanning the Business Environment, Macmillan 1967.
- Alderson, & Sessions, Basic Research Report on Consumer Behaviour in ed. R. E. Frank et al Quantative Techniques in Marketing Analysis, N. Y. Irwin, 1962, pp129-145.
- Alexander, F. C., Is Industrial Marketing Ready to Go Consumer, Industrial Marketing 1964, December, pp74-77.
- Allen, D., A Review of Process Theories of Decision Making Management Education and Development, 1977, vol. 8, pt 2, pp79-94.
- Allen, P., Psychology of the Buying Decision, Journal of Purchasing & Supply Management, December 1977, pp10-12,
- Alpert, M. I., Identification of Determinant Attributes, Journal of Marketing Research 1971, vol. 8 May, pp184-191.
- Anderson, L., Taylor, J. & Holloway, R., The Consumer and His Alternatives : An Experimental Approach, Journal of Marketing Research 1966, vol. 3, Feb. 62-67,
- Anderson, W. T., Cox, E. P., & Fulcher D., Bank Selection Decisions and Market Segmentation, Journal of Marketing 1976, vol. 40 January, pp40-45.
- Andre, J. San Augustine, Foley, W. & Friedman, H., Overt Searchers' Responses to Advertising, Industrial Marketing Management 1977, vol. 6, pp193-196
- Andreason, B. T., & Ratchford, B. T., Factors Affecting Consumers Use of Information Sources, Journal of Business Research 1976, vol. 4, pt. 3, pp197-212.
- Argyris, C., Dangers in Applying Results from Experimental Social Psychology, American Psychologist, 1975, April, vol. 30, pp469-485.
- Armstrong D., Shoppers are a Weird Lot, The Bulletin 1978, August, pp27-31.
- Arndt, J., Role of Product Related Conversations in the Difusion of New Products, Journal of Marketing Research 1967, vol. 4, pt. August, pp291-5.

- Arrow, The Limits of Organisation, N. Y. Norton, 1974.
- Assael H. & Day, G. S., Attitudes and Awareness as Predictors of Market Share, Journal of Advertising Research 1968, vol. 8, pt 4, pp3-10.
- Aspinwall, L. V., The Characteristics of Goods Theory, in Lazer, W., and Kelly, E. J., (Eds). 'Managerial Marketing : Perspectives and Viewpoints, pp633-643, 1962, Richard Irwin Incorporated.
- Atkin, C. K., Instrumental Utilities and Information Seeking, in Clark, P., (Ed). New Models for Communication Research, Beverly Hills, California, Sage Publications 1973.
- Atkin, C. S., Observation of Parent Child Interaction in Supermarket Decision Making, Journal of Marketing, vol. October, pp41-45.
- Automotive Purchase Decision : A Study of Consumer Buying Types, September 1960, Bureau of Advertising, American Newspaper Publishers Association.
- Bahr, S. J., Comment on 'The Study of Family Power: A Review 1960-69, J. of Marriage and the Family 1972, vol. 34, May, pp239-43.
- Banville, G. R., & Dornoff, R. J., Industrial Source Selection Behaviour - An Industry Study, Industrial Marketing Management (2) 1973, June, pp251-260.
- Barach, J. A., Advertising Effectiveness and Risk in the Consumer Decision Process, Journal of Market Research 1969, vol. 6, August, pp314-320.
- Barach, J. A., Self Confidence and Reactions to T.V. Commercials, (in Cox, Risk Taking and Info. Handling 1967, Harvard University Press : Boston), pp428-444.
- Barach, J. A., Self Confidence, Risk Handling and Mass Communication, in Marketing Involvement in Society and the Economy 1969, Fall Conference Proceedings, ed. P. R. McDonald, pp323-329.
- Barath, R., & Hugstad, P. S., Professionalism and the Behavior of Procurement Managers, Industrial Marketing Management 1977, vol. 6, pp297-306.
- Barker & Wicker, Commentaries on Belk, Situational Variables and Consumer Behaviour, Journal of Consumer Research 1975, vol. 2, December, pp165-167.
- Barton, A., & Parsons, R. W., Measuring Belief System Structure, Public Opinion Quarterly 1977, vol. 41, pp159-80.

- Bateson, N., Familiarisation, Group Discussion and Risk Taking, Journal of Experimental Social Psychology 1966, vol. 2, pp119-129.
- Bauer, R. A., A revised model of source effect, in Howard, J. A., and Ostland, L. E., Buyer Behaviour : Theoretical and Empirical Foundations 1973, Alfred A. Knopf, pp124-138.
- Bauer, R. A., Consumer Behaviour as Risk Taking, in Cox, Risk Taking and Information Handling, Harvard University Press, 1967, pp23-34.
- Bauer, R. A., Self Confidence and Persuasability: One More Time, Journal of Marketing Research 1970, vol. 7, May, pp256-258.
- Baumgarten, S. A., The Innovative Communicator in the Diffusion Process, Journal of Marketing Research 1975, vol. 12, February, pp12-18.
- Beal, G., & Rogers, E. M., Informational Sources in the Adoption Process of New Fabrics, Journal of Home Economics 1957, vol. 49, pp630-34.
- Beales, H., Mazis, M., Salop, S., & Staelin, R., Consumer Search and Public Policy, Journal of Consumer Research 1981, vol. 8, June, pp11-22.
- Bearden, W. O., et al, Exposing Organisational Buyers to Consumer Magazine Advertisements, Industrial Management Marketing 1978, vol. 7, pt. 6, pp379-386.
- Bearden, W. O., Consumer Perceived Risk and Attitudes Toward Generically Prescribed Drugs, Journal of Applied Psychology 1978, vol. 63, pt. 6, pp741-746.
- Bearden, W. O., & Mason, J. B., Consumer Perceived Risk and Attitudes Toward Generically Prescribed Drugs, Journal of Applied Psychology 1978, vol. 63, pt. 6, pp741-746.
- Bearden, W. O., Woodside, A., & Clapper, J. M., Situational and Brand Attitude Models of Consumer Choice Behaviour, J. Academy of Marketing Science 1976, vol 4, pt 3, pp566-576.
- Belk, R. W., An Exploratory Assessment of Situational Effects in Buyer Behaviour, Journal of Marketing Research 1974, vol. 11, May, pp156-63.
- Belk, R. W., Situational Variables and Consumer Behaviour, Journal of Consumer Research 1975, vol. 2, December, pp157-164.
- Bell, G. D., Self-Confidence and Persuasion in Car Buying, Journal of Marketing Research 1967, vol. 4, February, pp46-53.



- Bateson, N., Familiarisation, Group Discussion and Risk Taking, Journal of Experimental Social Psychology 1966, vol. 2, pp119-129.
- Bauer, R. A., A revised model of source effect, in Howard, J. A., and Ostland, L. E., Buyer Behaviour : Theoretical and Empirical Foundations 1973, Alfred A. Knopf, pp124-138.
- Bauer, R. A., Consumer Behaviour as Risk Taking, in Cox, Risk Taking and Information Handling, Harvard University Press, 1967, pp23-34.
- Bauer, R. A., Self Confidence and Persuasability: One More Time, Journal of Marketing Research 1970, vol. 7, May, pp256-258.
- Baumgarten, S. A., The Innovative Communicator in the Diffusion Process, Journal of Marketing Research 1975, vol. 12, February, pp12-18.
- Beal, G., & Rogers, E. M., Informational Sources in the Adoption Process of New Fabrics, Journal of Home Economics 1957, vol. 49, pp630-34.
- Beales, H., Mazis, M., Salop, S., & Staelin, R., Consumer Search and Public Policy, Journal of Consumer Research 1981, vol. 8, June, pp11-22.
- Bearden, W. O., et al, Exposing Organisational Buyers to Consumer Magazine Advertisements, Industrial Management Marketing 1978, vol. 7, pt. 6, pp379-386.
- Bearden, W. O., Consumer Perceived Risk and Attitudes Toward Generically Prescribed Drugs, Journal of Applied Psychology 1978, vol. 63, pt. 6, pp741-746.
- Bearden, W. O., & Mason, J. B., Consumer Perceived Risk and Attitudes Toward Generically Prescribed Drugs, Journal of Applied Psychology 1978, vol. 63, pt. 6, pp741-746.
- Bearden, W. O., Woodside, A., & Clapper, J. M., Situational and Brand Attitude Models of Consumer Choice Behaviour, J. Academy of Marketing Science 1976, vol 4, pt 3, pp566-576.
- Belk, R. W., An Exploratory Assessment of Situational Effects in Buyer Behaviour, Journal of Marketing Research 1974, vol. 11, May, pp156-63.
- Belk, R. W., Situational Variables and Consumer Behaviour, Journal of Consumer Research 1975, vol. 2, December, pp157-164.
- Bell, G. D., Self-Confidence and Persuasion in Car Buying, Journal of Marketing Research 1967, vol. 4, February, pp46-53.

- Bender, W. C., Consumer Purchase Costs : Do Retailers Recognise Them, Journal of Retailing, vol. 40, Spring 1964, pp1-8.
- Bennett, P. D., & Harrell, G. D., The Role of Confidence in Understanding and Predicting Buyers Attitudes to Purchase Intentions, Journal of Consumer Research 1975, vol. 2, Sept., pp110-117.
- Bennett, P. D., & Mandell, R. M., Prepurchase Information Seeking Behaviour of New Car Purchases, Journal of Marketing Research 1969, vol. 6, November, pp430-433.
- Berelson, B., & Steiner, G., Human Behaviour : An Inventory of Scientific Findings 1964, N.Y. Harcourt, Brace and W.
- Berey, L. A., & Pollay, R. W., The Influencing Role of the Child in Family Decision Making, Journal of Marketing Research 1968, vol. 5, February, pp70-2.
- Berlyne, D. E., Uncertainty and Epistemic Curiosity, British Journal of Psychology 1962, vol. 53, pt. 1, pp27-34.
- Bettman, J., Information Integration in Consumer Risk Perception: A Comparison of Two Models of Component Conceptualisation, Journal of Applied Psychology 1975, vol. 60, pt. 3, pp381-385.
- Bettman, J., & Zins, M., Constructive Processes in Consumer Choice, Journal of Consumer Research 1977, vol. 3, September, pp75-85.
- Bettman, J. R., Consumer Information and Search Strategies in ed A. A. Mitchell, The Effect of Information on Consumer and Market Behaviour, AMA Conference Proceedings 1978, pp35-48.
- Bettman, J. R., Information Integration in Consumer Risk Perception, Journal of Applied Psychology 1975, vol. 60, pp381-385.
- Bettman, J. R., Information Processing Models of Consumer Behaviour, Journal of Marketing Research 1970, vol. 7, pt. August, pp370-376.
- Bettman, J. R., Perceived Risk and its Components: A Model and Empirical Tests, Journal of Marketing Research 1973, vol. 10, May, pp184-190.
- Bettman, J. R., Perceived Risk: A Measurement Methodology and Preliminary Findings, Conference Proceedings of the 3rd Annual Conference of the Association of Consumer Research 1972, pp394-404.
- Bettman, J. R., Issues in Designing Consumer Information Environments, Journal of Consumer Research, vol. 2, December 1975, pp169-177.

- Bettman, J. R., The Structure of Consumer Choice Processes, Journal of Marketing Research 1971, vol. 8, November, pp465-71.
- Bettman, J. R., & Kakkar, P., Effects of Information Presentation Format on Consumer Information Acquisition Strategies, Journal of Consumer Research 1977, vol. 3, March, pp233-240.
- Bettman, J., & Park, C. W., Effects of Prior Knowledge and Experience and Phase of the Choice Knowledge on Consumer Decision Processes; A Protocol Analysis, Journal of Consumer Research 1980, vol. 7, December, pp234-248.
- Biehal, G., Consumers Prior Experience and Perceptions in Auto Repair Choice, Journal of Marketing 1983, vol. 47, Summer, pp82-91.
- Biehal, G., & Chakravarti, D., Information Accessibility as a Moderator of Consumer Choice, Journal of Consumer Research 1983, vol 10, June, pp1-14.
- Biehal, G., & Chakravarti, D., Information Presentation Format and Learning Goals as Determinants of Consumers Memory Retrieval and Choice Processes, Journal of Consumer Research 1982, vol. 8, March, pp431-441.
- Bird, M., & Ehrenberg, A. S. C., Consumer Attitudes and Brand Usages, Journal of Market Research Society 1970, vol. 12, October, pp233-247.
- Bither, S. W., & Wright, P. L., The Self Confidence-Advertising Response Relationship : A Function of Situational Distractions, Journal of Marketing Research 1973, vol. 10, May, pp146-152.
- Blake, B., Perlott, R., & Heslin R., Dogmatism and Acceptance of New Products, Journal of Marketing Research, vol. 7, November 1970, pp483-86.
- Bloch, P., & Richens, M., A Theoretical Model for the Study of Product Importance Perceptions, Journal of Marketing 1983, vol. 47, Summer, pp69-81.
- Blood, R. O., & Wolfe, D. M., Husbands & Wives: The Dynamics of Married Living, Free Press 1960.
- Bonoma, T. V., & Johnston, W. J., The Social Psychology of Industrial Buying and Selling, Industrial Marketing Management 1978, vol 17, pp213-224.
- Boone, L. E., & Stevens, R. E., Emotional Motives in the Purchase of Industrial Goods; Journal of Purchasing 1970, vol. 6, pt 2, pp48-53.

- Bettman, J. R., The Structure of Consumer Choice Processes, Journal of Marketing Research 1971, vol. 8, November, pp465-71.
- Bettman, J. R., & Kakkar, P., Effects of Information Presentation Format on Consumer Information Acquisition Strategies, Journal of Consumer Research 1977, vol. 3, March, pp233-240.
- Bettman, J., & Park, C. W., Effects of Prior Knowledge and Experience and Phase of the Choice Knowledge on Consumer Decision Processes; A Protocol Analysis, Journal of Consumer Research 1980, vol. 7, December, pp234-248.
- Biehal, G., Consumers Prior Experience and Perceptions in Auto Repair Choice, Journal of Marketing 1983, vol. 47, Summer, pp82-91.
- Biehal, G., & Chakravarti, D., Information Accessibility as a Moderator of Consumer Choice, Journal of Consumer Research 1983, vol 10, June, pp1-14.
- Biehal, G., & Chakravarti, D., Information Presentation Format and Learning Goals as Determinants of Consumers Memory Retrieval and Choice Processes, Journal of Consumer Research 1982, vol. 8, March, pp431-441.
- Bird, M., & Ehrenberg, A. S. C., Consumer Attitudes and Brand Usages, Journal of Market Research Society 1970, vol. 12, October, pp233-247.
- Bither, S. W., & Wright, P. L., The Self Confidence-Advertising Response Relationship : A Function of Situational Distractions, Journal of Marketing Research 1973, vol. 10, May, pp146-152.
- Blake, B., Perlott, R., & Heslin R., Dogmatism and Acceptance of New Products, Journal of Marketing Research, vol. 7, November 1970, pp483-86.
- Bloch, P., & Richens, M., A Theoretical Model for the Study of Product Importance Perceptions, Journal of Marketing 1983, vol. 47, Summer, pp69-81.
- Blood, R. O., & Wolfe, D. M., Husbands & Wives: The Dynamics of Married Living, Free Press 1960.
- Bonoma, T. V., & Johnston, W. J., The Social Psychology of Industrial Buying and Selling, Industrial Marketing Management 1978, vol 17, pp213-224.
- Boone, L. E., & Stevens, R. E., Emotional Motives in the Purchase of Industrial Goods; Journal of Purchasing 1970, vol. 6, pt 2, pp48-53.

- Braden, P. L., A Longitudinal Examination of Information Search During Major Household Economic Decisions, Unpublished Phd, Indiana Univ. Grad. School of Business 1973.
- Brand, G. T., The Industrial Buying Decision, Cassell: Associated Business Programmes 1972.
- Brandt, W. K., Search Processes For Purchases of Major Consumer Durables : An Empirical Inquiry, Unpublished PhD, (Stanford University), 1973.
- Brandt, W. K., & Day, G. S., Decision Processes for Major Durables; An Empirical View, A. M. A. Conference Proceedings, 1971, pp381-5,
- Brim et al, Personality and Decision Processes 1962, Stanford University Press.
- Brody, R. P., & Cunningham, S. M., Personality Variables and the Consumer Decision Process, Journal of Marketing Research 1968, vol. 5, February, pp50-57.
- Brooker G., & Houston, M., An Evaluation of Measures of Opinion Leadership, 'Marketing 1776-1976 and Beyond', Chicago AMA Conference Proceedings 1976, pp564-71.
- Brown, G. H., Automobile Buying Decision within the Family/In Nelson Foote, ed: Household Decision Making, New York University 1961, pp193-199.
- Browning, S. M., A Comparative Analysis of the Search Process in Home Buying in Two Missouri Housing Markets, Unpublished Phd, Univ. of Missouri - Columbia 1973.
- Bruce, G. D, & Dommermuth, W. P., Social Class Differences in Shopping Activities, Marquette Business Review 1968, vol. 12, Spring, ppl-7.
- Buchholz, R., Measurement of Beliefs, Human Relations 1976, vol. 29, no. 12, pp1177-1188.
- Bucklin, L. P., Consumer Search, Role Enactment and Market Efficiency, Journal of Business 1969, vol. 42, October, pp416-438.
- Bucklin, L. P., Testing Propensities to Shop, Journal of Marketing 1966, vol. 30, January, pp22-27.
- Bucklin, L. P., Retail Strategy and Classification of Consumer Goods, Journal of Marketing 1963, vol. 27, January, pp50-55.
- Burnkrant, R. E., & Cousineau A., Informational and Normative Social Influence in Buyer Behaviour, Journal of Consumer Research 1975, vol. 2, December, pp206-215.

- Burnkraut, R., A Motivational Model of Information Processing, Journal of Consumer Research 1976, vol. 3, pt 1, pp21-30.
- Bush, R. F., & Hair, J. F., Consumer Patronage Determinants of Discount versus Conventional Motels, Journal of Retailing 1976, vol. 52, no. 2, Summer, pp41-52.
- Calder, B. J., & Burnkrant, R. E., Interpersonal Influence on Consumer Behaviour: An Attribution Theory Approach, Journal of Consumer Research 1977, vol. 4, June, pp29-38.
- Campbell, B. M., The Existence of Evoked Set and Determinants or its Magnitude in Brand Choice Behaviour, in Eds Howard and Ostland, Buyer Behaviour : Theoretical & Empirical Foundations 1973, Alfred Knopf, pp243-345.
- Campbell, R., A Suggested Paradigm of the Individual Adoption Process, Rural Sociology, 1966, vol. 31, December, pp458-466.
- Capon, N., & Lutz, R. J., A Model and Methodology for the Development of Consumer Information Programs, Journal of Marketing 1979, vol. 43, January, pp58-67.
- Capon, N. & Kuhn, D., Can Consumers Calculate Best Buys, Journal of Consumer Research 1982, March, vol. 8, pp449-453.
- Capon, N. & Burke, M., Information Seeking Behaviour in Consumer Durable Purchases in Contemporary Marketing Thought, eds. Barnett, A., Greenberg & Bellenger, D. N., Chicago, American Marketing Association, pp110-115.
- Cardozo, R. N., An Experimental Study of Customer Effort, Expectation and Satisfaction, Journal of Marketing Research 1965, vol. 2, August, pp244-9.
- Cardozo, R. N., Segmenting the Industrial Market in R. L. King, Ed., 1968, Marketing and the New Science of Planning, A.M.A., Chicago, pp433-440.
- Cardozo, R. N., & Cagley, J. W., Experimental Study of Industrial Buying Behaviour, Journal of Market Research 1971, vol. 8, August, pp329-334.
- Carlson, Sune, Investment in Knowledge and the Cost of Information, Acta Academic Regiae Scientiarum Upsaliensis, University of Uppsala, Sweden, 1974.
- Carman, J. M., Correlation of Brand Loyalty, Journal of Marketing Research, vol. 7, February 1970, pp67-76.
- Carman, J. M., The Application of Social Class in Market Segmentation, 1965, Unpublished Phd., Berkeley, California, University of California.

- Cattin, P., & Wittink, D. R., Commercial Use of Conjoint Analysis; A Survey, Journal of Marketing, vol. 46, pt 3, pp44-53.
- Chaffee, S. H., & McLeod, J., Consumer Decisions and Information Use in Consumer Behaviour; Theoretical Sources, eds. Ward, S., & Robertson, T. W., Engelwood Cliffs, Prentice Hall, pp385-415.
- Child, J., Org. Structure, Environment and Performance: The Role of Strategic Choice, Sociology 1972, vol. 6, January, pp1-22.
- Chisnall, P. M., Fundamental Characterisitics of Industrial Markets, I.M.R.A. Journal, May 1975, vol. 10, pp3-15.
- Choffray, J. M., & Lilien, G. L., Assessing Response to Industrial Marketing Strategies, Journal of Marketing 1978, April, pp20-31.
- Clark, R. D., & Willens, E. P., Risk Preferences as Related to Judged Consequences of Failure, Psychological Reports 1969, vol. 29, pp827-830.
- Clawson, C. J., Family Composition, Motivation and Buying Decisions, in ed. N. Foote, Household Decision Making, N.Y. University Press, 1961, pp. 200-218,
- Claxton, J. D., Fry J. N., & Portis, B., A Taxonomy of Prepurchase Information Gathering Patterns, Journal of Consumer Research 1974, vol. 1, December, pp35-42.
- Clover, V. T., Relative Importance of Impulse Buying in Retail Shares, Journal of Marketing 1950, vol. 15, July, pp66-70.
- Cohen, J. B., An Interpersonal Orientation to the Study of Consumer Behaviour, Journal of Marketing Research 1967, vol. 4, August, pp270-280.
- Cohen, A. R., Brehm, J. W., & Latane, B., Choice of Strategy & Voluntary Exposure to Information, Journal of Personality 1959, vol. 27, pp63-73.
- Coley, J. R., Jackson, D. W., & Ostram, L. L., Relative Power in Industrial Buying Decisions, Journal of Purchasing and Materials Management 1978, vol. 14, pt. 1, pp 18-20.
- Coney, K. A., Dogmatism & Innovation: A Replication, Journal of Marketing Research 1972, vol. 9, November, pp453-455.
- Cooper, P., The Decline in the Status of Household Decision Making, British Journal of Marketing 1968, Autumn, pp179-185.
- Copeland, M. T., Buying Motives for Industrial Goods, Harvard Business Review 1924, January, pp305-318.

- Copeland, M. T., Consumer Buying Motives, Harvard Business Review 1924 January, pp139-153.
- Copeland, M. T., Principles of Merchandising, 1924, McGraw Hill.
- Copeland, M. T., Relations of Consumers' Buying Habits to Marketing Methods, Journal of Marketing 1923, vol. 1, April, pp282-9.
- Copley, T. P., & Callom, F. L., Industrial Search Behaviour and Percieved Risk, 1971 Proceedings, 2nd Annual Conference Assoc. of Consumer Research, pp208-231.
- Corey, L. G., People Who Claim to be Opinion Leaders: Identifying their Characteristics by Self Report, Journal of Marketing 1971, vol. 35, Oct, pp48-53.
- Coulson, J. S., Buying Decisions Within the Family and the Consumer Brand Relationship, In J. W. Newman Ed., On Knowing the Consumer, 1966, Wiley, pp59-66.
- Cox, D. F., The Measurement of Information Value: A Study in Consumer Decision Making, in W. S. Decker, Ed., 1963, Emerging Concepts in Marketing, A.M.A., pp413-421.
- Cox, D. F., Risk Taking and Information Handling in Consumer Behaviour, Harvard University Press 1967, pp324-369, pp604-639.
- Cox, D., & Rich, S., Perceived Risk and Consumer Decision Making : The Case of Telephone Shopping, Journal of Marketing Research 1964, vol. 33, November, pp32-39.
- Cox, D. F., & Bauer, R. A., Self Confidence & Persuasibility in Women, Public Opinion Quarterly 1964, vol. 28, Fall, pp453-466.
- Crosier, K., Ladders in the Mind, Occasional Report No. 2, Struthers Advertising Group 1981.
- Cunningham, I. C. M., & Green, R. T., Purchasing Roles in the U. S. Family 1955-1973, Journal of Marketing 1974, vol. 38, October, pp61-81.
- Cunningham, M. T., & Kettlewood, K., Source Loyalty in the Freight Transport Market, European Journal of Marketing 1977, vol. 10, pt. 1, pp60-79.
- Cunningham, M. T., & Roberts, D. A., The Role of Customer Service in Industrial Marketing, European Journal of Marketing 1974, vol. 8, No. 1, Spring, pp15-28.
- Cunningham, M. T., & White, J. G., Determinants of Choice of Supplier, European Journal of Marketing 1973, vol. 3, no. 3, Winter, pp189-202.



- Cunningham, M. T., & White, J. G., The Behaviour of Industrial Buyers in their Search for Suppliers of Machine Tools, Journal of Management Studies 1974, vol. 11, pt. 2, May, pp115-128.
- Cunningham, S. M., Perceived Risk and Brand Loyalty, in D. F. Cox, Risk Taking and Information Handling in Consumer Behaviour, 1967, pp507-523
- Cunningham, S. M., Perceived Risk as a Factor in Informal Consumer Communications, pp265-288, in D. F. Cox, Risk Taking and Information Handling in Consumer Behaviour, 1967, pp507-523.
- Cunningham, S. M., The Major Dimensions of Perceived Risk, pp82-108, in D. F. Cox, Ed. Risk Taking and Information Handling in Consumer Behaviour, 1967, pp507-523.
- Curry, D., & Menasco, M. B., Some Effects of Differing Information Processing Strategies on Husband and Wife Joint Decisions, Journal of Consumer Research, vol. 6, 1979, pp192-203.
- Cyert R., & March, J., Behavioural Theory of the Firm, 1963, Prentice Hall.
- Cyert, R. M., Dill, W. R., & March, J. G., The Role of Expectations in Decision Making in Organisational Decision Making, M. Alexis and C. Wilson, 1967, Prentice Hall.
- Czepiel, J. A., W.O.M. Processes in the Diffusion of a Major Technological Innovation, Journal of Marketing Research 1974, vol. 11, May, pp172-180.
- Darby, N., How Advertising Works, Admap U.K., 1977, April, pp194-198.
- Darden, W. R., & Reynolds, F. D., Shopping Orientations & Product Usage Rates, Journal of Marketing Research 1971, vol. 8, Summer, pp60-72, 91.
- Dash, J., Schiffman, L., & Berenson, C., Risk and Personality Related Dimensions of Store Choice, Journal of Marketing Research 1976, vol. 40, January, 0032-39.
- Davis, H. L., Decision Making Within the Family, Journal of Consumer Research 1976, vol. 2, March, pp241-260.
- Davis, H. L., Dimensions of Marital Roles in Consumer Decision Making, Journal of Marketing Research 1970, May, vol. 7, pp168-77.
- Davis, H. L., Measurement of Husband-Wife Influence in Consumer Purchase Decisions, Journal of Marketing Research 1971, August, vol. 8, pp305-312.

- Davis, H. L., & Rigaux, B., Perception of Marital Roles in Decision Processes, Journal of Consumer Research 1974, vol. 1, June, pp51-61.
- Dawson, P., Organisational Purchasing Decision Making Behaviour, 1974, Unpublished M. Phil, Warwick.
- Day, G. S., Identifying Environmental Influences on Brand Choice Decisions, in Behavioural and Management Science in Marketing, eds. Davies, H. L. & Silk, A. J., Wiley & Sons, pp56-69.
- Deering, B. J., & Jacoby, J., Risk Enhancement and Risk Reduction As Strategies For Handling Percieved Risk, 3rd Annual Conference Association of Consumer Research 1972, pp404-416.
- Dempsey, W. A., Vendor Selection and the Buying Process, Industrial Marketing Management 1978, vol. 7, pp257-267.
- Dewey, J., How We Think, Boston 1910.
- Dickson, G. W., An Analaysis of Vendor Selection Systems and Decisions, Journal of Purchasing 1966, February, pp5-17.
- Dickenson, R., Search Behaviour; A Note, Journal of Consumer Research 1982, vol. 9, June, pp115-116.
- Dietrich, R. F., 37 Things You Can Do to Keep Your Customer, Progressive Grocer 1973, June, pp59-64.
- Dommermuth, W. P., The Shopping Matrix & Marketing Strategy, Journal of Marketing Research 1965, vol. 2, May, pp128-132.
- Dommermuth, W. P., & Cundiff, E. W., 'Shopping Goods, Shopping Centres, and Selling Strategies', Journal of Marketing 1967, vol. 31, October, pp32-36.
- Donnelly, J. H., & Etzel, M. J., Degree of Product Newness and Early Trial, Journal of Marketing Research 1973, vol. 10, August, pp295-300.
- Donohew, L., & Tipton, L., A Conceptual Model of Information Seeking, Avoiding, and Processing, in Clarke, P., (Ed), New Models for Communication Research, Sage Publications 1973, vol. 2.
- Doran, E. J., An Empirical Specification of a Model of Buyer Search in the Single Family Residence Market, Unpublished Phd. Uni. of Santa Clara 1977.
- Downs, A., A Theory of Consumers Efficiency, Journal of Retailing 1961, vol. 37, Spring, pp6-12.
- Doyle, P., Advertising Expenditure and Consumer Demand, Oxford Economic Papers, No. 20, No. 3, November 1968, pp394-414.

- Doyle, P., Woodside, A. G., & Mitchell, P., Organisations Buying in New Task and Rebuy Situations, Industrial Marketing Management 1979, vol. 8, pp7-11.
- Driscoll, J. M., & Lanzetta, J. T., Effects of Problem Uncertainty and Prior Arousal on Pre-decisional Information Search, Psychological Reports 1964, vol. 14, June, pp975-988.
- Duncan, C. P., & Olshavsky, R. W., External Search: The Role of Consumer Beliefs, Journal of Marketing Research, February 1982, vol. 19, pp32-43.
- Duncan, D. J., What Motivates Business Buyers, Harvard Business Review 1940, pp448-54.
- Duncan, G., Labay, & Kinnear, T. C., Exploring the Consumer Decision Process in the Adoption of Solar Energy Systems, Journal of Consumer Research 1981, vol. 8, December, pp271-278.
- Edwards, M. G., Supplier Management Evaluation, Journal of Purchasing 1967, vol. 3, February, pp28-41.
- Ehrenberg, A. S. C., Review of Consumer Decision Processes, Journal of Marketing Research 1968, vol. 5, August, pp334.
- Ehrenberg, A. S. C., Towards an Integrated Theory of Consumer Behaviour, Journal of the Market Research Society 1969, vol. 11, October, pp305-337.
- Else, P. K., The Incidence of Advertising in Manufacturing Industries, Oxford Economic Papers, 1966, vol. 18, March, pp88-110.
- Engel, J. F., Blackwell, R. D. & Kegerreis, R.J., How Information is Used to Adopt an Innovation, Journal of Advertising Research 1969, vol. 9, December, pp3-8.
- Engel, Kollat & Blackwell, Consumer Behaviour 1968, Holt, Rinehart & Winston.
- Evans, F. B., Psychological v Objective Factors in the Prediction of Brand Choice, Journal of Business, vol. 32, October, 1959, pp340-69.
- Farley, J. V., Dimensions of Supermarket Choice Patterns, Journal of Market Research 1968, vol. 5, May, pp206-208.
- Farley, J. V., & Ring, L. W., An Empirical Test of the Howard and Sheth Model of Buyer Behaviour, Journal of Marketing Research 1970, vol. 7, November, pp427-38.

- Farley, J. V., Howard, J. A., & Lehmann, D. R., A Working System Model of Car Buyer Behaviour, Management Science, vol. 23, no. 3, November 1976, pp235-247.
- Farley, J. V., Howard J. A., & Ring, L. W., Consumer Behaviour: Theory and Application, Allyn & Bacon, 1974.
- Farley, J. V., & Ring, L. W., On L and R and Hapissimm, Journal of Marketing Research 1972, vol. 9, August, pp349-353.
- Farley, J. V., & Ring, L. W., Specification of Buyer Behaviour Model, Journal of Marketing Research 1974, vol. 11 (1), February, pp89-96.
- Feather, N. T., An Expectancy-value Model of Information Seeking Behaviour, Psychological Review 1967, vol. 74, pt. 5, pp342-360.
- Feldman W., & Cardozo, R., The 'Industrial' Revolution and Models of Buyer Behaviour, Journal of Purchasing 1969, November, pp77-78.
- Fenton, J. S., & Leggett, T. R., A New Way to Find Opinion Leaders, Journal of Advertising Research 1971, vol. 11, pt. 2, pp-21-25.
- Ferber, R., Factors Influencing Durable Goods Purchases in Consumer Behaviour: The Dynamics of Consumer Protection, ed. L. H. Clark, New York University Press 1954, vol. 2.
- Ferber, R., On the Reliability of Purchase Influence Studies, Journal of Marketing 1955, vol. 19, January, pp225-232.
- Ferber, R., The Role of Planning in Consumer Purchases of Durable Goods, The American Economic Review 1954, vol. 44, pp854-876.
- Ferber, R., & Lee, L., Husband and Wife Influence in Family Purchasing Behaviour, Journal of Consumer Research 1974, vol. 1, June, pp43-50.
- Ferguson, W., A Critical Review of Recent Organsitional Buying Research, Industrial Marketing Management 1978, vol. 7, pp225-230.
- Ferguson, W., An Examination of Industrial Buying Behaviour During the Public Warehouse Selection Process, Unpublished Phd., Ohio State 1977.
- Fishbein, M., Belief Attitude, Intention and Behaviour : An Introduction to Theory and Research, Prentice Hall, 1975.
- Fisher, L., Industrial Marketing, 2nd edition, 1976.
- Fisk, G., A Conceptual Model for Studying Customer Image, Journal of Retailing, Winter 1961-62, vol. 37, no. 4, ppl-8.

- Fletcher, W., The Diversity Within the D.M.U., Marketing 1978, December, pp46-48.
- Foot, Nelson N., ed., Household Decision Making, Consumer Behaviour, vol. 4, New York University Press, 1968.
- Fornell, C., & Westbrook, R. A., Identification of Consumer Information Gathering Approaches: European Academy for Advanced Research in Marketing, Stockholm Conference, 1978.
- Foxall, G., Marketing Models of Buyer Behaviour: A Critical View, European Research, vol. 8, September 1980, pp195-206.
- Friedman, M., Consumer Use of Information Aids in Supermarkets, Journal of Consumer Affairs 1977, vol. 11, Summer, pp78-89.
- Fry, J. N., & Siller, F. H., A Comparison of Housewife Decision Making in Two Social Classes, Journal of Marketing Research 1970, vol. 7, August, pp333-337.
- Furse, D., Girish, P., & Stewart, D., A Typology of Individual Search Strategies Among Purchasers of New Automobiles, Journal of Consumer Research 1984, vol. 10, March, pp417-431.
- Gabor, A. & Granger, C. W. J., Price Sensitivity of the Consumer, Journal of Advertising Research 1964, vol. 4, December, pp40-44.
- Gardener, M. P., Advertising Effects on Attributes Recalled and Criteria Used For Brand Evaluations, Journal of Consumer Research 1983, December, vol. 10, pp310-318.
- Gentry, J. W., & Burns, A. C., How Important are Evaluative Criteria in Shopping Centre Patronage, Journal of Retailing 1977-78, vol. 53, pt. 4, pp73-86.
- Goode, W. J., & Hatte, P. K., Research Methods in Social Research, McGraw Hill, 1953.
- Goldman, A., & Johanson, J., Determinants of Search for Lower Prices: An Empirical Assessment of the Economics of Information Theory, Journal of Consumer Research 1978, vol. 5, December, pp176-186.
- Gordon, J., Industrial Purchasing Decisions and Decision Makers, Admap 1971, July/August, pp232-235.
- Granbois, D. H., Decision Process for Major Durable Goods, in G. Fisk, ed. New Essays in Marketing Theory, 1969, pp172-205.
- Granbois, D. H., Improving the Study of Consumer - In-Store Behaviour, Journal of Marketing 1968, vol. 33, October, pp30.

- Granbois, D., Shopping Behaviour and Preferences, Selected Aspects of Consumer Behaviour 1977, National Science Foundation: Washington, pp259-298.
- Granbois, D. H., & Willett, R. P., Equivalence of Family Role Measures Based on Husband and Wife Data, Journal of Marriage and the Family 1970, vol. 32, February, pp68-72.
- Green, P. E., Consumer Use of Information, in Newman, J. W., ed. On Knowing the Consumer, New York: John Wiley 1966, pp67-80.
- Green, P. E., Carmone, F. J., & Wachspress, D. P., On the Analysis of Qualitative Data in Marketing Research, Journal of Marketing Research 1977, vol. 14, February, pp52-59.
- Green, P., Halbert, M., & Minas J., An Experiment in Information Buying, Journal of Advertising 1964, vol. 4, September, pp17-23.
- Green & Wind, Y., Multi Attribute Decisions in Marketing: A Measurement Approach, 1973 Drysdon Press.
- Green, P. E., Wind, V., & Jain, A. K., Analysing Free-response Data in Marketing Research, Journal of Marketing Research 1973, vol. 10, February, pp45-52.
- Greenwald, A., Cognitive Learning, Cognitive Response to Persuasion and attitude change, in Psychological Foundations of Attitudes, Ed. A. Greenwald, T. Brock and T. Ostram, Academic Press 1968, pp147-170.
- Gorman, R. H., Role Conception and Purchasing Behaviour, Journal of Purchasing and Materials Management 1971, vol. 7, February, pp57-71.
- Gronhaug, K., Buying Situation and Buyers Information Behaviour, European Marketing Research Review 1972, vol. 7, pt. 1, pp33-48.
- Gronhaug, Exploring a Complex Organizational Buying Decision, Industrial Marketing Management 1977, vol. 6, pp439-445.
- Gronhaug, K., How New Car Buyers Use Advertising, Journal of Advertising Research 1975, vol. 15, February, pp49-53.
- Gronhaug, K., Search Behaviour in Organisational Buying, Industrial Marketing Management 1975, vol. 4, pp15-23.
- Gronhaug, K., Some Factors Influencing the Size of Evoked Set, European Journal of Marketing 1973/4, vol. 7, pt. 3, pp232-241.
- Gross, I., Purchasing Decision Under Conditions of Uncertainty, Journal of Purchasing 1968, vol. 4, pt. 2 (May), pp17-38.

- Granbois, D., Shopping Behaviour and Preferences, Selected Aspects of Consumer Behaviour 1977, National Science Foundation: Washington, pp259-298.
- Granbois, D. H., & Willett, R. P., Equivalence of Family Role Measures Based on Husband and Wife Data, Journal of Marriage and the Family 1970, vol. 32, February, pp68-72.
- Green, P. E., Consumer Use of Information, in Newman, J. W., ed. On Knowing the Consumer, New York: John Wiley 1966, pp67-80.
- Green, P. E., Carmone, F. J., & Wachspress, D. P., On the Analysis of Qualitative Data in Marketing Research, Journal of Marketing Research 1977, vol. 14, February, pp52-59.
- Green, P., Halbert, M., & Minas J., An Experiment in Information Buying, Journal of Advertising 1964, vol. 4, September, pp17-23.
- Green & Wind, Y., Multi Attribute Decisions in Marketing: A Measurement Approach, 1973 Drysden Press.
- Green, P. E., Wind, V., & Jain, A. K., Analysing Free-response Data in Marketing Research, Journal of Marketing Research 1973, vol. 10, February, pp45-52.
- Greenwald, A., Cognitive Learning, Cognitive Response to Persuasion and attitude change, in Psychological Foundations of Attitudes, Ed. A. Greenwald, T. Brock and T. Ostram, Academic Press 1968, pp147-170.
- Gorman, R. H., Role Conception and Purchasing Behaviour, Journal of Purchasing and Materials Management 1971, vol. 7, February, pp57-71.
- Gronhaug, K., Buying Situation and Buyers Information Behaviour, European Marketing Research Review 1972, vol. 7, pt. 1, pp33-48.
- Gronhaug, Exploring a Complex Organizational Buying Decision, Industrial Marketing Management 1977, vol. 6, pp439-445.
- Gronhaug, K., How New Car Buyers Use Advertising, Journal of Advertising Research 1975, vol. 15, February, pp49-53.
- Gronhaug, K., Search Behaviour in Organisational Buying, Industrial Marketing Management 1975, vol. 4, pp15-23.
- Gronhaug, K., Some Factors Influencing the Size of Evoked Set, European Journal of Marketing 1973/4, vol. 7, pt. 3, pp232-241.
- Gross, I., Purchasing Decision Under Conditions of Uncertainty, Journal of Purchasing 1968, vol. 4, pt. 2 (May), pp17-38.

- Gutman, J., A Means-end Chain Model Based on Consumer Categorisation Processes, Journal of Marketing, Spring 1982, vol. 46, pp60-72.
- Haines, G. H., Process Models of Consumer Decision Making, 1974, in Ed. Hughes, G. D. and Ray, M. L., Buyer/Consumer Information Processing, University of North Carolina Press.
- Hakansson, H., Johanson, J., & Wootz, B., Influence Tactics in Buyer Seller Processes, Industrial Marketing Management 1977, vol. 5, pp319-332.
- Hakansson H., & Ostberg, C., Industrial Marketing; An Organisational Problem?, Industrial Marketing Management 1975, vol. 4, pp113-123.
- Haksansson, H., & Wootz, B., Risk Reduction and the Industrial Purchaser, European Journal of Marketing 1977, vol. 9, pt. 1, pp35-51.
- Hakansson, H., & Wootz, B., Supplier Selection in an International Environment - an Experimental Study, Journal of Marketing Research 1975, vol. 12, February, pp46-51.
- Hansen, F., Consumer Choice Behaviour : A Cognitive Theory, Free Press 1972.
- Hansen, F., Psychological Theories of Consumer Choice, Journal of Consumer Research 1976, vol. 3, no. 3, December, pp117-143.
- Hansen, F., Consumer Choice Behaviour : An experimental Approach, Journal of Marketing Research 1969, vol. 6, November, pp436-443.
- Hanson, R. A., & Deutscher, T., An Emperical Investigation of Attribute Importance in Retail Store Selection, Journal of Retailing 1977-78, vol. 53, pt. 4, pp59-72.
- Haque, P., It's the Quality that Counts, Industrial Marketing Digest 1979, pp60-66.
- Hawkins, C. K., & Lanzetta, J. T., Uncertainty, Importance and Arousal as Determinants of Pre-decisional Information Search, Psychological Reports 1965, vol. 17, pp791-800.
- Heer, D. M., Husband and Wife Perceptions of Family Power Structure, Marriage and Family Living 1962, vol. 36, February, pp65-67.
- Heer, D. M., The Measurement of and Bases of Family Power, Marriage and Family Living 1963, vol. 25, pp133-139.
- Hempel, D. J., An Experimental Study of the Effects of Information on Consumer Product Evaluation, in R. M. Hass ed. Science, Technology and Marketing, Chicago A.M.A. 1966, pp589-597.



- Hempel, D. J., Family Buying Decisions : A Cross Cultural Perspective, Journal of Marketing Research 1974, vol. 11, August, pp295-302.
- Hempel, D. J., Search Behaviour and Information Utilisation in the Home Buying Process, in Marketing Involvement in Society and the Economy, AMA 1969, Fall Conference Proceedings ed. P. R. McDonald, pp241-249.
- Henry, H., Goods or Services, Consumer or Industrial; the Rule is No Exceptions, Admap October 1979, pp520-525.
- Herbst, P. G., The Measurement of Family Relationships, Human Relations 1952, vol. 5, February, pp3-35.
- Herman, P., & Locander, W., The effect of Self Confidence and Anxiety on Risk Reduction Strategies for an Innovative Product, Journal of Academy of Marketing Science 1977, Spring, vol. 5, no. 2, pp113-125.
- Hermann, R. O., & Beik, L. L., Shoppers Movement Outside Their Local Retail Area, Journal of Marketing 1968, vol. 32, October, pp45-51.
- Hickey, J. V., How to Measure Supplier Performance, Purchasing 1958, 29 September, pp68-69.
- Hill, A., & Cross, Industrial Marketing, Irwin, 1975.
- Hill, R., Patterns of Decision Making and the Accumulation of Family Assets, in N. Foote, Household Decision Making 1965, pp57-81.
- Hill, R., Some Reflections on the Organisational Buying Behaviour, I.M.R.A. Journal 1972, vol. 8, pt. 2, pp90-98.
- Hill, R. W., The Nature of Industrial Buying Decisions, Industrial Marketing Management 1972, (2) October, pp45-55.
- Hill, R. W., & Hillier, T. J., Organisational Buying Behaviour 1977, Macmillan.
- Hillier, T. J., Decision-making in the Corporate Industrial Buying Process, Industrial Marketing Management 1975, vol. 4, pt. 2, pp99-106.
- Hippel, E. von, A Customer Active Paradigm for Industrial Product Idea Generation, Strathclyde Marketing Theory Conference, University of Strathclyde 1977.
- Hirschman, E., Social and Cognitive Influences on Information Exposure : A Path Analysis, Journal of Communications 1981, vol. 31, pp76-87.

- Hisrich, R. D., Dornoff, R. J., & Kermann, J., Perceived Risk in Store Selection, Journal of Marketing Research 1972, vol. 9, November, pp435-439.
- Holbrook, M., Beyond Attitude Structure : Towards the Informational Determinants of Attitude, Journal of Marketing Research 1978, vol. 15, November, pp545-556.
- Holton, R. H., Distinction Between Convenience, Shopping and Speciality Goods, Journal of Marketing 1958, vol. 23, July, pp53-56.
- Holton, R. H., What is Really Meant by Speciality Goods, Journal of Marketing 1959, vol. 24, July, pp64-67.
- Horton, R. A., The Structure of Perceived Risk : Further Progress, Journal of the Academy of Marketing Science 1976, vol. 4, pt. 4, pp694-706.
- Houland & Janis, Personality and Persuasability, Yale Uni. Press, 1959.
- Houston, M. J., Consumer Evaluation of Product Information Sources, in Ed. J. H. Leigh & C. R. Martin, Current Issues and Research in Advertising 1979, Grad. School of Business Admin.
- Howard, J. A., Conceptualising Adequacy of Information, 1972 3rd Annual Conference, Association Consumer Research, pp96-100.
- Howard, J. A., Confidence as a Validated Construct, in eds. Howard, J. A., & Ostland, L. E., Buyer Behaviour : Theoretical and Empirical Foundations, New York : Knopf 1973, pp424-438.
- Howard, J. A., Consumer Behaviour : Application of Theory, 1977.
- Howard J. A., & Morgenroth, W. M., Information Processing Model of Executive Decision Management Science 1968, vol. 14, March, pp416-428.
- Howard, J. A., & Ostlund, L. E., Buyer Behaviour : Theoretical and Empirical Foundations, New York : Knopf 1973.
- Howard & Ostlund, The Model : Current Status of Buyer Behaviour Theory, pp3-35, in Howard & Ostlund eds., : Buyer Behaviour 1973.
- Howard, J. A., & Sheth, J. N., The Theory of Buyer Behaviour, J. Wiley & Sons 1969.
- Hughes, G. D., Tunic, S. M., & Naest, P. A., Analysing Consumer Information Processing, pp235-241, in Marketing Involvement in Society and the Economy, ed. P. R, McDonald, A.M.A. 1969, Fall, Conference Proceedings.

- Hughes, G. D., Buyer/Consumer Information Processing: An Overview of Where Researchers Have Been Where They Should Be Going, in Hughs and Ray, pp3-11, Buyer/Consumer Information Processing 1974.
- Hughes, G. D., Attitude Measurements for Marketing Strategies, Scott Foresman & Co., 1971.
- Hunt, S. D., & Pappas, J. L., A Crucial Test for the H and S Model of Buying Behaviour, Journal of Marketing Research 1972, vol. 9, pt. 3, pp346-348.
- Hughes, G. D., & Ray, M. L., Buyer/Consumer Information Processing, 1974, North Carolina Press.
- I.M.C. Review Board, Fundamental Differences Between Industrial and Consumer Markets, Journal of Marketing 1954, October, pp152-158.
- Irwin, F. R., & Smith, W., Value, Cost and Information as Determinants of Decision, Journal of Experimental Psychology 1957, vol. 54, September, pp229-232.
- Isaacson, H. L., Store Choice : A Study of Consumer Decision Making, vol. 8, 1966, Retail Research Institute, National Retail Merchants Assoc., New York.
- Jackson, G. B., An Investigation of the Relation Between Perceived Risk and Consumerism, Unpublished Phd., Uni. of Arkansas 1977.
- Jackson, J. H., Sciglimplagia, D., Toward a Role Model of the — Organisational Purchasing Process, Journal of Purchasing and Materials Management 1974, vol. 10, pt. 2, pp68-75.
- Jacoby, J., & Kaplan, L. B., The Components of Perceived Risk, 1972 3rd Annual Conference Assoc., Consumer Research, pp382-393,
- Jacoby, J., Speller, D. E., & Berning, C. K., Brand Choice Behaviour as a Function of Information Load, Replication and Extension, Journal of Consumer Research 1974, vol. 1, June, pp33-42.
- Jacoby, J., Information Load and Decision Quality; Some Contested Issues, Journal of Marketing Research 1977, vol. 14, pp569-573.
- Jacoby, J., Personality and Innovation Proneness, Journal of Marketing Research, vol. 8, May 1971, pp244-247.
- Jacoby, J., Perspective on Information Overload, Journal of Consumer Research 1984, vol. 10, March, pp432-435.

- Jacoby, J., Speller, D., & Kohn C., Brand Choice Behaviour as a Function of Information Load, Journal of Marketing Research 1974, vol. 11, February, pp 63-69.
- Jacoby, J., Szybillo, G., & Berning, C. K., Time and Consumer Behaviour : An Interdisciplinary Overview, Journal of Consumer Research 1976, vol. 2, March, pt. 3, pp320-339.
- Jacoby, J., Szybillo, G., & Busato-Schach, J., Information Acquisition Behaviour in Brand Choice Situations, Journal of Consumer Research 1977, vol. 3, March, pp209-216.
- Jaffe, L. J., & Senft, H., The Roles of Husband and Wife in Purchasing Decisions, in Ed. Adler, L. & Crisp, I., Attitude Research at Sea, A.M.A. 1966, pp95-111.
- James, B., Emotional Buying in the Industrial Market, Scientific Business 1966, Spring, pp326-330.
- Johne, F. A., Supplier Evaluation Schemes Within the Context of the Industrial Marketing Transaction, Marketing Forum 1970, January-February, pp5-12.
- Johnson, D. L., & Andrews, I. R., Risky Shift Phenomenon Tested With Consumer Products as Stimuli, Journal of Personality and Social Psychology 1971, vol. 20, pt. 3, pp382-385.
- Johnson, R. M., Trade Off Analysis of Consumer Values, Journal of Marketing Research, vol. 11, May, pp121-127.
- Jolson, M. A., & Spath, W. F., Understanding and Fulfilling Shoppers Requirements, Journal of Retailing 1973, vol. 43, Summer, pp38-47.
- de. Jonge, L., & Oppendijk van Veen, W. M., A Micro Model of Purchasing for Consumer Durables, pt. 1, European Research 1975, July, vol. 3, pp151-161, pt. 2, European Research 1976, May, vol. 4, pp129-141.
- de. Jonge, L., & Oppedijk van Veen, W. M., Some Problems of Collecting Data about Households Purchasing Behaviour Concerning Durable Goods, European Research 1978, vol. 6, pt. 1, January/February, pp3-19.
- Kaish, S., Cognitive Disonance and the Classification of Consumer Goods, Journal of Marketing, vol. 31, October 1967, pp28-31.
- Kaplan, L. B., Sybillo, G. J., & Jacoby, J., Components of Perceived Risk in Product Purchase - A Cross Validation, Journal of Applied Psychology 1974, vol. 593, pp287-291.
- Kasulis J., Lusch, R. E., & Stafford, E. F., Consumer Acquisition Patterns for Durable Goods, Journal of Consumer Research 1979, vol. 6, June, pp47-57.

- Katona, G., A Study of Purchase Decisions in Ed. L. H. Clarke, Consumer Behaviour : The Dynamics of Consumer Reaction 1954, N.Y. Uni. Press, vol. 1, pp30-36.
- Katz, & Lazarsfeld, Personal Influence, Free Press 1955.
- Kiel, G. C., An Empirical Analysis of New Car Buyers External Information Search Behaviour, Unpublished Phd, Uni. of New South Wales (Aus.) 1978.
- Keil, G. C., & Layton, R. A., Dimensions of Consumer Information Seeking Behaviour, Journal of Marketing Research 1981, vol. 18, May, p233-239.
- Keiser, S. K., & Kuehl, P. G., Social Class and Income as Influences on External Search Processes of Adolescents, 3rd Annual Conference Proceedings - Association of Consumer Research 1972, pp602-631.
- Kellogg, N., Selecting and Evaluating Vendors, Journal of Purchasing 1959, February, pp80-81.
- Kelly, J. P., Functions Performed in Industrial Purchasing Decisions with Implications for Marketing Strategy, Journal of Business Research 1974, vol. 2, pt. 4, pp421-434.
- Kelly, J. P., & Coaker, J. W., The Importance of Price as a Choice Criterion for Industrial Purchasing Decisions, Industrial Marketing Management 1976, vol. 5, pp281-293.
- Kelly, J. P., The Search for and Uses of Information in an Industrial Purchasing Decision, Unpublished Phd., Uni. of Illinois 1972.
- Kelly, R. F. & Egan, M. B., Husband and Wife Interaction in a Consumer Decision Process, in Marketing Involvement in Society and the Economy, ed. P. R. McDonald, 1969 AMA Conference Proceedings.
- Kelly, R. F., The Role of Information in the Patronage Decision : A Diffusion Phenomenon, in Conference Proceedings, American Marketing Assoc., ed. Moyer, M. S., & Vosburg, R. E., Marketing for Tomorrow-Today, 1967, pp119-129.
- Kelly, R. F., The Search Component of the Consumer Decision Process - A Theoretic Examination, in R. L. King ed., Marketing and the New Science of Planning, 1968, pp213-279.
- Kenkel, W., Husband Wife Interaction in Decision Making and Decision Choices, Journal of Social Psychology 1961, vol. 54, August, pp255-262.

- Kenkel, W. F., Family Interaction in Decision Making on Spending, pp140-164, in N. Foote, Household Decision Making, 1968.
- Kenkel, W. F., Influence Differentiation in Family Decision Making, Sociology and Social Research 1957, vol. 42, September/October, pp18-25.
- Kenkel, W. F., & Hoffman, D. K., Real and Conceived Roles in Family Decision Making, Marriage and Family Living 1956, November, pp311-326.
- Kenneth, A., & Le Claire, Consumer 'Processing' of Information: Fact or Fiction, European Research 1981, vol. 9, no. 4, pp134-143.
- Kerby, J. K., Consumer Behaviour 1975, Dun-Donnelley.
- Kernan, J. B., Choice Criteria, Decision Behaviour and Personality, Journal of Marketing Research 1968, vol. 5, May, pp155-164.
- Kiser, G. E., Rao, S., & Rao, C., Clues to the Design of a Marketing Mix, European Journal of Marketing 1974, vol. 8, pt. 2, pp168-179.
- Kiser, G. E., & Rao, C. P., Important Vendor Factors in Industrial and Hospital Organisations : A Comparison, Industrial Marketing Management 1977, vol. 6, pp289-296.
- Klahr, M. W., A Comparison of Two Buyer Behaviour Models, Unpublished Phd., Columbia University 1974.
- Klapper, J. T., The Effect of Mass Communication, Free Press 1960.
- Klass, B., What Factors Affect Industrial Buying Decisions, Industrial Marketing 1961, May, pp33-35, vol. 46.
- Kleimenhagen, A. K., Shopping, Speciality and Convenience Goods, Journal of Retailing 1966/67, vol. 42, Winter, pp32-39, 63.
- Kohn Berning, C., & Jacoby, J., Patterns of Information Acquisition in New Product Purchases, Journal of Consumer Research 1974, vol. 1, September, pp18-22.
- Kollat, D. T., A Decision Process Approach to Impulse Purchasing, R. M. Hass, ed., Science, Technology and Marketing 1967, pp626-639.
- Komarousky, M., Class Differences in Family Decision Making on Expenditures, in Ed. Foote, N., Household Decision Making, 1961.
- Krapfel, R. E., A Decision Process Approach to Modelling Organisational Buyer Behaviour, 1978, AMA Conference Proceedings Series 43, pp116-120.

- Kumpf, N. A., An Empirical Investigation of Consumer Risk Perceptions and Search Behaviour, Unpublished D.B.A., Univ. of Kentucky 1978.
- Labovitz, S., Statistical Useage in Sociology, Sociological Methods and Research, August 1972, vol. 1, No. 1, pp13-38.
- Labovitz, S., The Assignment of Numbers to Rank Order Categories, American Sociological Review 1970, vol. 35, pp51-524.
- Lachman, R., Lachman, J., & Butterfield, E., 1979 Cognitive Psychology and Information Processing : An Introduction, Hillsdale NJ, Erlbaum Assoc.
- Lake, D., Miles, M., & Earle, R., eds. Measuring Human Behaviour, Teachers College Press 1973.
- Lambert, Z. V., Perceptual Patterns, Information Handling and Innovativeness, Journal of Marketing Research 1973, vol. 9, pp427-431.
- Lampert, S. I., & Rosenberg, L. J., Word of Mouth Activity as Information Search: A Reappraisal, Journal of the Academy of Marketing Science 1975, vol. 3, pt. 4, pp337-354.
- Lanzetta, J. T., & Kanareff, K. T., Information Cost, Amount of Payoff and Level of Aspiration as Determinants of Information Seeking in Decision Making, Behavioural Science 1962, vol. 7, pt. 4, pp459-473.
- Lavidge, R. J., & Steiner, G. A., A Model for Predictive Measurements of Advertising Effectiveness, Journal of Marketing 1961, vol. 25, October, pp59-62.
- Lazer, W. & Bell, W., The Communication Process and Innovation, Journal of Advertising Research 1966, vol. 6, pt. 3, pp2-7.
- Lazerfield, Berelson & Gaudet, The People Choice, Columbia Uni. Press 1948.
- LeGrand B., & Udell, J., Consumer Behaviour and the Market Place, Journal of Retailing 1964, vol. 40, Fall, pp32-38.
- Lehmann, D. et al, Some Empirical Contribution to Buyer Behaviour Theory, Journal of Consumer Research 1974, vol. 1, December, pp43-55.
- Lehmann, D., Moore, W., & Elrod, T., The Development of District Choice Process Segments Over Time: A Stochastic Modelling Approach, Journal of Marketing, vol. 46, Spring 1982, pp48-59.
- Lehmann, D. R., & O'Shaughnessy, J., Difference in Attribute Importance for Different Industrial Products, Journal of Marketing 1974, vol. 38, April, pp36-42.

- Lessig, V. P., & Anderson, B. B., Do Different Consumers Operate Under the Same Preference Model, Journal of the Academy of Marketing Science 1976, Winter, vol. 4, no. 1, pp429-439.
- Lessig, V. P., & Park, C. W., Predictive and Diagnostic Comparison of Two Consumer Decision Models, European Research 1978, vol. 6, No. 3, May, pp99-104.
- Levitt, T., Communications and Industrial Selling, Journal of Marketing 1967, vol. 31, April, pp15-21.
- Lewis, H. T., What Motivates the Industrial Buyer, Printers Ink 1958, pt. 263, pp44-45.
- Linguist, J. D., Meaning of Image : A Survey of Empirical & Hypothetical Evidence, Journal of Retailing, vol. 5, Winter 1974/75, pp29-38.
- Lister, P., Identifying and Evaluating the Purchasing Influence, I.M.R.A. 1967, pp190-199.
- Little, B., & Brown, C. L., Perceived Risk and Industrial Buying Behaviour, Working Paper Series no. 32R, 1970.
- Lonial, S. C., Selected Aspects of Recalled Consumer Deliberation and Major Appliance Purchasing, Unpublished Phd., Uni. of Louisville 1978.
- Love, R., & Greenwald, A., Cognitive Responses to Persuasion as Mediators of Opinion Change, Journal of Social Psychology 1978, vol. 104, pp231-241.
- Luck, D. J., On the Nature of Speciality Goods, Journal of Marketing 1959, vol. 24, July, pp61-64.
- Luffman, G., The Processing of Information by Industrial Buyers, Industrial Marketing Management 1974, vol. 3, pp363-375.
- Luffman, G. A., Industrial Buying Behaviour, European Journal of Marketing 1974, vol. 8, pt. 2, Summer, pp93-107.
- Lussier, D., & Olshavsky R., Task Complexity and Contingent Processing in Brand Choice, Journal of Consumer Research 1979, vol. 6, pp154-165.
- Lutz, R., An Experimental Investigation of Casual Relations Among Cognitions, Affect and Behavioural Intention, Journal of Consumer Research 1977, vol. 3, pp197-208.
- Lutz, R., Changing Brand Attitude Through Modification of Cognitive Structure, Journal of Consumer Research 1975, vol. 1, pp45-59.



- Lutz, R. J., & Resek, R. W., More on Testing the H & S Model of Buyer Behaviour, Journal of Marketing Research, vol. 9, August 1972, pp344-353.
- Lutz, R., & Swasy, J. L., Integrating Cognitive Structure and Cognitive Response Approach for Monitoring Communication Effects, Advances in Consumer Research, vol. 4, ed. William D. Perreault, Atlanta Assoc. for Consumer Research, pp363-371.
- Lunn, J. A., & Blackston, M. M., An Assessment of Micro-Behavioural Modelling and Its Cost Effectiveness, Proceedings of 1978 Esomar Annual Conference, pp723-753.
- Lynch, J., & Srull, T., Memory and Attentional Factors in Consumer Choice: Concepts and Research Methods, Journal of Consumer Research, vol. 9, no. 1, 1982, pp18-38.
- Myers, B. L., & Melcher, A. J., On the Choice of Risk Levels Managerial Science 1969, vol. 16, pt. October, pp31-39.
- Machine Tools EDC, A Handbook for Marketing Machinery 1970, pp54-59.
- MacCrimmon, K. R., Managerial Decision Making, in J. W. McQuire : Contemporary Managerial Issues & Viewpoints, Prentice Hall 1973, Chap. 15.
- McGuire, W. J., An Information Processing Model of Advertising Effectiveness, in Behavioural & Management Science in Marketing, ed. H. L. Davis & A. J. Silk, pp156-181.
- McGuire, W., Some Internal psychological Factors Influencing Consumer Choice, Journal of Consumer Research 1976, vol. 2, March, pp302-309.
- McIver, C., Selling to Industry?, Basic Principles Are The Same, Advertisers Weekly 1962, October, pp50.
- Maile, C. A., & Kizilbash, A. H., A Communications Model for Marketing Decisions, Journal of the Academy of Marketing Science, Winter 1977, vol. 5, no. 1, pp48-56.
- Malhotra, N. K., Information Load and Consumer Decision Making, Journal of Consumer Research 1982, vol. 8, March, pp.
- Malhotra, N., On "Individual Differences in Search Behaviour for a Non Durable", Journal of Consumer Research 1983, June, vol. 10, pp125-131.
- Malhotra, N. K., Reflections on the Information Overload Paradigm in Consumer Decision Making, Journal of Consumer Research 1984, vol. 10, March, pp436-440.
- Malhotra, N., Jain, A., & Lagakos, S., The Information Overload Controversy : An Alternative Viewpoint, Journal of Marketing 1982, vol. 46, Spring, no. 2, pp27-37.

- Marrian, J., Role of the Salesman in the Organisational Buying Process, Industrial Advertising and Marketing 1974, June, pp41-46.
- March & Simon, Organisations, 1958, Wiley.
- Marcus, A. S. & Bauer, R. A., Yes : There are Generalised Opinion Leaders, Public Opinion Quarterly 1968, vol. 28, Winter, pp628-632.
- Markham, V., Effective Industrial Selling 1970, George Allen & Unwin, pp42-48, 48-58.
- Markin, R. J., Consumer Behaviour : A Cognitive Orientation, 1974, Collier Macmillan.
- Martilla, J. A., Word of Mouth Communications in the Industrial Adoption Process, Journal of Marketing Research 1971, vol. 8, May, pp173-178.
- Mason, J. B., & Mayer, M. L., Empirical Observations of Consumer Behaviour, Journal of Retailing, vol. 48, Fall 1972, pp17-31.
- Mason, J. W. The Communications Effect of an Industrial Advertising Campaign, Journal of Advertising Research 1969, vol. 9, pt 1, pp35-37.
- Mason, R. G., The Use of Information Sources in the Process of Adoption, Rural Sociology 1964, vol. 29, January, pp40-52.
- Mathewson, G. W., A Consumer Theory of Demand for the Media, Journal of Business 1972, vol. 45, April, pp212-224.
- May, F. E., Adaptive Behaviour in Automobile Brand Choices, Journal of Marketing Research 1969, vol. 6, February, pp62-65.
- May, F. E., Buyer Behaviour: Some Research Findings, Journal of Business 1965, vol. 38, October, pp379-396.
- May, F., & Homans, R., Evoked Set Size and Level of Information Processing in Product Comprehension and Choice Criteria, Advances in Consumer Research 1977, Association of Consumer Research, pp172-175.
- Mazis, M. B., Decision Making Role and Information Processing, Journal of Marketing Research 1972, vol. 9, November, pp447-450.
- Mazis, M. B. & Settle, R. B., Consumer Reaction to Restriction of Choice Alternatives, 1972 3rd Annual Conference Association Consumer Research, pp417-427.

- Mazis, M. M., Staelin, R., Beals, H., & Salop, S., A Framework For Evaluating Consumer Information Regulation, Journal of Marketing 1981, vol. 45, Winter, pp11-21.
- Meidan, A., Home Selection Criteria, Quarterly Review of Marketing, 1980, Spring, pp11-17.
- Midgley, D., Patterns of Interpersonal Information Seeking for the Purchase of a Symbolic Product, Journal of Market Research 1983, vol. 20, February, pp74-83.
- Miller, G. A., The Magical Number 7, Plus or Minus 2: Some Limits on Our Capacity for Processing Information, Psychological Review 1956, vol. 63, pt. 2, March, pp81-97.
- Mitchell A., & Olson, J., Are Product Attributes the Beliefs the the Only Mediator of Advertising Effects on Attitude, Journal of Marketing Research 1981, vol. 18, August, pp318-332.
- Monczka, R. M., Giunepero, L., & Reck, R., International Journal of Purchasing & Material Management 1981, vol. 17, Spring, pp21-29.
- Monroe K. B., Buyers Subjective Perceptions of Price, Journal of Marketing Research 1973, vol. 10, February, pp70-80.
- Monroe, K. B., The Influence of Price Differences & Brand Familiarity on Brand Preferences, Journal of Consumer Research 1976, vol. 3, June, pp42-49.
- Monroe, K. B. & Gultinan, J. P., A Path-Analytic Exploration of Retail Patronage Influences, Journal of Consumer Research 1975, vol. 2, June, pp19-28.
- More, R. A., Primary and Secondary Market Information for New Industrial Products, Industrial Marketing Management 1978, vol. 7, pt. 3, pp153-161.
- Moore, O. K. & Anderson, S. B., Search Behaviour in Individual and Group Problem Solving, American Sociological Review 1954, vol. 19, pp702-714.
- Moore, T., Subliminal Advertising: What You See Is What You Get, Journal of Marketing 1982, vol. 46, Spring, pp38-47.
- Moore, W., & Lehmann, D., Individual Differences in Search Behaviour for a Nondurable, Journal of Consumer Research 1980, vol. 7, December, pp296-307.
- Moschis, G. P., Shopping Orientations and Consumer Use of Information, Journal of Retailing 1976, vol. 52, pt. 2, pp61-70.

- Moschis, G. P. Social Comparison and Informal Group Influence, Journal of Marketing Research 1976, vol. 13, pt. August, pp237-244.
- Mueller, E., Consumer Behaviour: A Study of Purchase Decisions 1954, N.Y. Uni. Pres, vol. 1, pp36-87.
- Munsinger, G., Weber, J., & Hansen, R., Joint Home Purchasing Decisions by Husbands and Wives, Journal of Consumer Research 1975, vol. 1, March, pp60-66.
- Muse, W. V., & Hutt, M. D., Information Acquisition and Transmission in New Product Purchase Decisions, Business Perspectives, vol. 7, Winter, 1971, pp30-35.
- Myers, J. M., Benefit Structure Analysis: A New Tool for Product Planning, Journal of Marketing 1976, vol. 40, October, pp23-32.
- Myers & Alpert, M. I., Determinant Buyers Attitudes : Meaning and Measurement, Journal of Marketing 1968, vol. 32, pt. 4, pp13-20.
- Nelson, P., Advertising as Information, Journal of Political Economy 1974, July/August, pp729-754.
- Nelson, P., Information and Consumer Behaviour, Journal of Political Economy 1970, vol. 78, pp311-329.
- Newell, A., & Herbert, S., Human Problem Solving, Englewood Cliffs, N.J., Prentice Hall, 1972.
- Newman, J. W., Consumer External Search: Amount and Determinants, in Consumer and Industrial Buying Behaviour, eds. A.G. Woodside, J.N. Seth & P.D. Bennett, 1977, North Holland Pub. Co., pp79-94.
- Newman, J. W., & Lockman, B. D., Measuring Prepurchase Information Seeking, Journal of Consumer Research 1975, vol. 2, pt. 3, pp216-222.
- Newman, J. W. & Staelin, R., Information Sources of Durable Goods, Journal of Advertising Research 1973, vol. 13, April, pp19-30.
- Newman, J. W., & Staelin, R., Prepurchase Information Seeking for New Cars and Major Household Appliances, Journal of Marketing Research 1972, vol. 9, pt. 3, pp249-257.
- Newman, J. W. & Staelin, R., Multivariable Analysis of Differences in Buyer Decision Time, Journal of Marketing Research 1971, vol. 8, May, pp192-198.

- Newton, A. E., & Gilmore, D. L., Consumer Behaviour in Carpet Purchasing: Relation of Cognitive and Affective Domains, Journal of Home Economics 1969, vol. 61, February, pp110-113.
- Nicosia, F. M., Consumer Decision Process, Prentice Hall 1966.
- Nicosia, F. M., & Wind, Y., Emerging Models of Organisational Buying Process, Industrial Marketing Management 1977, vol. 6, pt. 5, pp353-369.
- Nicosia, F., Consumer Behaviour: Can Economics and Behavioural Science Converge, California Management Review, Winter 1973, vol. 16, no. 2, pp71-78.
- Norris, R. T., Processes and Objectives of House Purchasing in the New London Area, in Consumer Behaviour: The Dynamics of Consumer Reaction, ed. L. H. Clark, New York University Press 1954, vol. 1, pp25-29.
- O'Brien, T. V., Information Handling in Consumer Decisions, Journal of the Academy of Marketing Science 1977, vol. 5, pt. 33, pp229-232.
- O'Brien, T. V., Tracking Consumer Decision Making, Journal of Marketing 1971, vol. 35, January, pp34-40.
- O'Rourke, J. F., Field and Laboratory: The Decision Making Behaviour of Family Groups in Two Experimental Conditions, Sociometry 1963, vol. 27, December, pp422-435.
- O'Shaughnessy, J., Aspects of Industrial Buyer Behaviour Relevant to Supplier Account Strategies, Industrial Marketing Management 1977, vol. 6, pp15-22.
- Olshavsky, R., Task Complexity and Contingent Processing in Decision Making; A Replicaition and Extension, Organisational Behaviour and Human Performance 1979, vol. 24, pp300-316.
- Olshavsky, R. W., Customer Salesman Interaction in Appliance Retailing, Journal of Marketing Research 1973, vol. 10, pp208-212.
- Olshavsky, R. W., & Granbois, D. H., Consumer Decision Making - Fact or Fiction, Journal of Consumer Research 1979, vol. 6, September, pp93-100.
- Olson, J., Toy, D., & Dover, P., Do Cognitive Responses Mediate the Effects of Advertising Content on Cognitive Structure, Journal of Consumer Research 1982, vol. 9, December, pp245-262.

- Olson, P. D., Notes: Decision Making Type 1 and Type 11 Error Analysis, California Management Review 1977, vol. 20, pt. 1, pp81-83.
- Osgood, C. E., Cognitive Dynamics in the Conduct of Human Affairs, Public Opinion Quarterly 1960, vol. 24, pp341-365.
- Ostlund, L. E., Product Specific Self Confidence Related to Buying Intentions in Howard & Ostlund, Buyer Behaviour : Knopf 1973, pp434-445.
- Ostlund, L. E., The Role of Product Perceptions in Innovative Behaviour, in Marketing Involvement in Society and the Economy, ed. P. R. McDonald, 1969 AMA Fall Conference Proceedings, pp259-266.
- Ozanne, V. B., & Churchill, G. A., Five Dimensions of the Industrial Adoption Process, Journal of Marketing Research 1971, vol. 8, August, pp322-328.
- Ozanne, V. B., & Churchill, G. A., Adoption Research: Information Sources in the Industrial Purchasing Decision, Journal of Marketing Research 1971, pp352-359.
- Palda, K. S., The Hypothesis of a Hierarchy of Effects: A Partial Evaluation, Journal of Marketing Research 1966, vol. 3, pt. February, pp13-24.
- Park, C. W., Joint Decisions in Home Purchasing. A Muddling Through Process, Journal of Consumer Research 1982, vol. 9, September, pp151-162.
- Park, C. W., and Lessig, V. P., Familiarity and its Impact on Consumer Decision Biases and Heuristics, Journal of Consumer Research 1981, vol. 8, September, pp223-230.
- Park, C. W., & Lessig, V. P., Judgemental Rules and Strategies of the Familiarity Curve, Journal of Advertising 1977, vol. 6, Winter, pp10-16.
- Park, C. W., & Lutz, R. J., Decision Plans and Consumer Choice Dynamics, Journal of Marketing Research 1982, vol. 19, February, pp108-115.
- Park, C. W., Hughes, R., Thukral, V., & Friedmann, R., Consumers' Decision Plans and Subsequent Choice Behaviour, Journal of Marketing 1981, vol. 45, Spring, pp33-47.
- Palmer, J., & Faivre, J., The Information Processing Theory of Consumer Behaviour, European Research 1973, vol. 1, pt. 6, pp. 231-241.
- Parke, I. R., The Effects of Product Perception on Industrial Buyer Behaviour, Industrial Marketing Management 1972, vol. 3, pp339-345.

- Parsons, T., & Shils, E., eds. Toward a General Theory of Action, Harvard Uni. Press, 1951.
- Patchen, M., The Locus and Basis of Influence on Organisational Decisions, Organisational Behaviour and Human Performance 1974, vol. 11, pp195-221.
- Patti, C. H., Buyer Information Sources in the Capital Equipment Industry, Industrial Marketing Management 1977, vol. 6, pp259-264.
- Payne, J., Heuristic Choice Processes in Decision Making, Advances in Consumer Research 1976, vol. 3, Association of Consumer Research, pp321-327.
- Payne, J., Braunstein, Myron, L., & Carroll, J., Exploring Predecisional Behaviour; An Alternative Approach to Decision Research, Organisational Behaviour and Human Performance 1978, vol. 22, pp17-44.
- Payne, J. W., Braunstein, M. L., & Carroll, J. S., Exploring Predecisional Behaviour: An Alternative Way to Decision Research, Organisational Behaviour and Human Behaviour 1978, vol. 22, pp17-44.
- Pellemans, P. A., Consumer Decision Making Process, in Insights in Consumer and Market Behaviour, ed. P. A. Pelleman, 1971, Namur University, pp5-29.
- Penrose, E., The Theory of the Growth of the Firm, Oxford, 1959.
- Perrow, C., The Neo-Weberian Model: Decision Making, Conflict and Technology, in Complex Organisations: A Critical Essay, Glenview, Ill., Scott, Foreman & Co., 1972, pp145-176.
- Perry, M., & Norton, N., Dimensions of Store Image, Southern Journal of Business 1970, vol. 5, pp1-7.
- Pessemier, E. A., Burger, P., & Tigent, D. J., Can New Product Buyers Be Identified, Journal of Marketing Research 1967, vol. 4, pp349-354.
- Peter, J. P., & Ryan, M. J., An Investigation of Percieved Risk at the Brand Level, Journal of Marketing Research 1976, vol. 13, May, pp184-188.
- Peter, J. P., & Tarpey, L., A Comparative Analysis of Three Consumer Decision Strategies, Journal of Consumer Research 1975, vol. 2, pp28-37.

- Peters, M. P., & Venkatesan, M., Exploration of Variables Inherent in Adopting an Industrial Product, Journal of Marketing Research 1973, vol. 10, August, pp312-315.
- Pettigrew, A. M., The Industrial Purchasing Decision Process, Working Paper, pp74-36, July 1974, European Institute of Advanced Studies in Management Studies, Brussels.
- Pettigrew, A. M., The Industrial Purchasing Decision as a Political Process, European Journal of Marketing 1975, vol. 9, pt. 1, pp4-19.
- Pettigrew, T. F., The Measurement and Correlates of Category Width as a Cognitive Variable, Journal of Personality 1956, vol. 26, December, pp532-544.
- Pickering, J. F., The Durable Purchasing Behaviour of the Individual Household, European Journal of Marketing 1971, vol. 12, pp178-193.
- Pollay, R. W., A Model of Family Decision making, British Journal of Marketing 1968, vol. 33, Autumn, pp206-216.
- Pooler, V. H., Can Vendors Really Be Rated, Purchasing 1962, June, pp60-62.
- Popielarz, D. T., An Exploration of Perceived Risk and Willingness to Try New Products, Journal of Marketing Research 1967, November, vol. 4, pp368-372.
- Prasad, V. K., Correlates of Multistore Food Shopping, Journal of Retailing, vol. 48, no. 2, Summer 1972, pp74-81.
- Prasad, V. K., Evoked Set Size - Personality Correlates and Mediating Variables, Journal of the Academy of Marketing Science 1975, Summer, vol. 3, no. 3, pp272-279.
- Pratt, R. W., Understanding the Decision Process for Consumer Durable Goods: An Analysis of the Application of Longitudinal Analysis, in Marketing & Economic Development, AMA 1965 Conference Proceedings, pp244-260.
- Pratt, R. W., Consumer Behaviour: Some Psychological Aspects, in G. Swartz, ed. Science in Marketing, J. Wiley, 1965.
- Progressive Grocer, How Much Do Customers Know About Retail Prices, 1964, February, pp104-106.
- Proctor, T. Decision Making: The Costs and Benefits of Search, Journal of General Management 76/77, Winter, pp27-40.
- Ratchford, B. T., A Normative Model for Assessing the Effectiveness of Consumer Choice and Information Seeking Behaviour, Working Paper, 78/8 European Institute for Advanced Studies in Management, Brussels, 1978, February, pp78-88.



- Ratchford, B. T., Consumer Choice Behaviour: Review and Synthesis, Working Paper, 78-79 European Institute for Advanced Studies in Management, 1978, March, pp78-79.
- Ray, M., & Ward, S., eds., Communicating with Consumers: The Information Processing Approach, 1976, Beverley Hills, Sage.
- Reck, R. R., Purchasing Effectiveness, Journal of Purchasing and Marketing Management 1978, Summer, pp5-11.
- Reingen, P. H., Comment on Woodside, Journal of Marketing Research 1974, vol. 11, May, pp223-224.
- Reingen, P. H., Risk Taking by Individuals and Formal Groups With the Use of Industrial Product Purchasing Situations As Stimuli, Journal of Psychology 1973, vol. 85, pp339-345.
- Reynolds, F., An Analysis of Catalogue Buying Behaviour, Journal of Marketing 1974, vol. 38, pt. 3, pp47-51.
- Reynolds, F. R. Problem Solving and Trail Use in the Adoption Process, Journal of Marketing Research 1971, vol. 8, February, pp100-102.
- Rich, S. V., Shopping Behaviour of Dept. Store Customers: A Study of Store Policies and Customer Demand, With Particular Reference to Delivery Service and Telephone Ordering, Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1963.
- Rich, S. V., & Jain, S. C., Social Clan and Life Cycle as Predictors of Shopping Behaviour, Journal of Marketing Research 1968, vol. 5, February, pp41-49.
- Riter, C. B., What Influences the Purchase of Colour T.V., Journal of Retailing 1966/67, vol. 42, Winter, pp25-31, pp63-64.
- Robertson, T. S., The Effect of the Informal Group Upon Member Innovative Behaviour, in R. L. King (ed)., Marketing and the New Science of Planning, Chicago AMA 1968, pp334-340.
- Robertson, Low-Commitment Consumer Behaviour, Journal of Advertising Research 1976, vol. 16, no. 2, pp19-24.
- Robertson, T. S., & Kennedy, J. M., Prediction of Consumer Innovators, Journal of Marketing Research 1968, vol. 5, February, pp64-69.
- Robey, D., & Johnston, W. J., Lateral Influences and Vertical Authority in Organisational Buying, Industrial Marketing Management 1977, vol. 6, pp451-462.

- Robey, D., & Johnstone, W. J., Lateral Influences and Vertical Authority in Organisational Buyers, Industrial Marketing Management 1977, vol. 6, pp451-462.
- Robinson, J. P., & Shaver, P. S., Measures of Social Psychological Attitudes, Survey Research Centre, 1973.
- Robinson, P. J., Fanis, C. W., & Wind, Y., Industrial Buying Behaviour and Creative Marketing 1967, Allyn & Bacon Marketing Science Institute.
- Roering, K. J., & Block, C. E., Population Density and Type of Purchase as Explanatory Variables in Consumer Information Search, Journal of the Academy of Marketing Science 1976, vol. 4, pt. 4, pp731-741.
- Rodgers, E., Diffusion of Innovations, Free Press 1962.
- Rodgers, E., & Shoemaker, F. F., Communication of Innovations, N.Y. Free Press 1971.
- Rodgers, E. M., & Stanfield, J. D., Adoption and Diffusion of New Products: Emerging Generalisations & Hypothesis, in F. Bass, C. King, & E. Pessemier, eds. Applications of the Sciences in Marketing Management, N.Y., Wiley & Sons, 1968, pp227-250.
- Roselius, T., Consumer Rankings of Risk Reduction Methods, Journal of Marketing 1971, vol. 35, January, pp56-61.
- Ross, I., Perceived Risk and Consumer Behaviour: A Critical Review, in M. Schlinger, ed. Advances in Con. Res., vol. 2, Association of Consumer Research 1974.
- Rothe, J. T., & Lamont, L. M., Purchase Behaviour and Brand Choice Determinants for National and Private Brand Major Appliances, Journal of Retailing 1973, vol. 49, Fall, pp19-33.
- Rothschild, Advertising Strategies for High and Low Involvement Situations, in Attitude Research Plays for High Stakes, ed. Maloney, J. & Silverman, B., AMA 1979, pp74-93.
- Rudd, J., & Kohout, F., Individual and Group in Consumer Information Acquisition in Brand Choice Situations, Journal of Consumer Research 1983, vol. 10, December, pp303-309.
- Russo, J. E., More Information Is Better: A Revaluation of Jacoby, Speller and Kohn, Journal of Consumer Research 1974, vol. 1, December, pp68-72.
- Safilios-Rothschild, C., A Study of Family Power Structure: A Review 1960-69, Journal of Marriage and the Family 1970, vol. 32, November, pp539-552.

- Saleh, F., & Londe, B. J., Industrial Buying Behaviour and the Motor Carrier Selection Decision, Journal of Purchasing 1972, vol. 8, pt. 1, pp18-33.
- Sales Management, Drugstore Packages: As Consumers See Them 1970, September, pp41-52.
- Sarin, R. K., Experimental Results of an Approach for Evaluating Alternatives, Decision Sciences 1977, vol. 8, pt. 4, pp722-733.
- Scammon, D. L., Information Load and Consumers, Journal of Consumer Research 1977, vol. 4, pp148-155.
- Scanzoni, J., A Note on the Sufficiency of Wife Responses in Family Research, Pacific Sociological Review 1965, vol. 8, Fall, pp109-115.
- Schaninger, C. M., Perceived Risk and Personality, Journal of Consumer Research 1976, vol. 3, pt. September, pp95-100.
- Schaninger, C., & Sciglimpaglia, D., The Influence of Cognitive Personality Traits and Demographics on Consumer Information Processing, Journal of Consumer Research 1981, vol. 8 (2), pp208-216.
- Schapker, B. L., Behaviour Patterns of Supermarket Shoppers, Journal of Marketing 1966, vol. 30, October, pp46-49.
- Schiffman, L. G., Perceived Risk in New Product Trial by Elderly Consumers, Journal of Marketing Research 1972, February, vol. 9, pp106-108.
- Schiffman, L. G., & Gaccione, V., Opinion leaders in Institutional Markets, Journal of Marketing 1974, vol. 38, April 49-53.
- Schiffman, L. G., Schus, S., & Winer, L., Risk Perception as a Determinant of In Home Consumption, Journal of the Academy of Marketing Science 1976, vol. 4, pt. 4, pp753-763.
- Schiffman, L. G., & Kanuk, L. L., Consumer Behaviour, 1978, Prentice Hall.
- Schoder, H., Driver, M., & Steufert, S., Human Information Processing, N.Y. Holt Rinehart & Winston 1967.
- Scott, J. E., & Wright, P., Modelling an Organisational Buyer's Product Evaluation Strategy: Validity and Procedural Considerations, Journal of Marketing Research 1976, vol. 13, August, pp211-224.
- Scott, R., The Female Consumer, Associated Business Programmes, London, 1976.

- Semon, T. T., On the Perception of Appliance Attributes, Journal of Marketing Research 1979, vol. 6, February, pp101.
- Sepstrup, P., The Individuals Information Acquisition, European Journal of Marketing 1974, vol. 8, pt. 3, pp218-235.
- Sharp, H., & Mott, P., Consumer Decisions in the Metropolitan Family, Journal of Marketing 1956, vol. 21, October, pp149-156.
- Sharpe, L. K., & Granzin, K. L., Brand Attributes that Determine Purchase, Journal of Advertising Research 1974, vol. 14, April, pp39-42.
- Sheldon, E. B., ed. Family Economic Behaviour: Problems and Prospects, 1973, J. B. Lippincott & Co.
- Sheluga, D. A., Jaccard, J., & Jacoby, J., Preference, Search and Choice; An Integrative Approach, Journal of Consumer Research 1979, vol. 6, September, pp166-176.
- Sheth, J. N., A Model of Industrial Buyer Behaviour, Journal of Marketing 1973, vol. 37, October, pp50-56.
- Sheth, J. N., A Theory of Family Buying Decisions, in Insights in Consumer and Market Behaviour, ed. P. A. Pelleman, Namur University 1971, pp32-52.
- Sheth, J. N., How Adults Learn Brand Preference, Journal of Advertising Research 1968, vol. 8, September, pp25-36.
- Sheth, J., How Consumers Use Information, European Research 1979, July, pp167-173.
- Sheth, J., W.O.M. In Low Risk Innovations, Journal of Advertising Research 1971, vol. 11, pt. 3, pp15-18.
- Sheth, J. G., ed. Models of Buyer Behaviour, Harper Row 1974.
- Sheth, J. N., & Venkatesan, M., Risk Reduction Processes in Repetitive Consumer Behaviour, Journal of Marketing Research 1974, vol. 5, August, pp307-310.
- Shocker, A. D., & Srinivasan, V., Multi-Attribute Approaches for Product Concept Evaluation and Generation: A Critical Review, Grad. School of Bus., Uni. of Pittsburg, 1977, Working Paper, pp240.
- Shoemaker, R., & Shoaf, F. R., Behavioural Changes in the Trial of New Products, Journal of Consumer Research 1975, September, pp104-109.
- Shuchman, A., & Perry, M., Self Confidence and Persuasibility in Marketing: A Reappraisal, Journal of Marketing Research 1969, vol. 6, May, pp146-154.

- Shuptrine, F. K., & Samualson, G., Dimensions of Marital Roles in Consumer Decision Making: Revisited, Journal of Marketing Research 1976, vol. 8, February, pp87-91.
- Sibley, S. D., How Interfacing Departments Rate Vendors, Journal of Purchasing and Marketing Management 1978, vol. 14, pt. 2, Summer, pp30-32.
- Simon, H., Administrative Behaviour, Collier MacMillan 1957.
- Simon, H., Models of Thought, 1979 New Haven, CT: University Press.
- Slater, P. E., Role Differentiation in Small Groups, in eds. Hare, Bargotta & Bales, Small Groups, 1955, pp498-515.
- Sloane, L., Rating Systems Improve Vendor Performance, Purchasing 1961, December, pp84-86.
- Slovic, P., Limitations on the Mind of Man: Implications for Decision Making in the Nuclear Age, ORI Research Bulletin 1974, pp11-17.
- Smith, R. E., & Swinyard, W., Information Response Models: An Integrated Approach, Journal of Marketing 1982, vol. 46, no. 1, pp81-94.
- Smith, S. A., How Do Consumers Choose Between Brands of Consumer Goods, Journal of Retailing 1970, vol. 46, pt. 2, pp18-26.
- Summers, J. O., The Identity of Womens Clothing Fashion Opinion Leaders, Journal of Marketing Research 1970, vol. 7, May, pp178-185.
- Summers, J. O., & King, C. W., Interpersonal Communication and New Product Attitudes, in Philip R. McDonald (ed.), Marketing Involvement in Society and Economy, Chicago AMA 1969, pp292-299.
- Spekman, R. E., & Stern, L. W., Environmental Uncertainty and Buying Group Structure: An Empirical Investigation, Journal of Marketing Management 1979, vol. 43, Spring, pp54-64.
- Spekman, R. E., & Ford, G. T., Perceptions of Uncertainty Within a Buying Group, Industrial Marketing Management 1977, vol. 6, pp395-403.
- Spence, H. E., Engel, J. F., & Blackwell, R. D., Perceived Risk in Mail Order and Retail Store Buying, Journal of Marketing Research 1970, vol. 7, August, pp364-349.
- Stabell, C. B., Integrative Complexity of Information Environment Perception and Information use, Organisational Behaviour and Human Performance 1978, vol. 22, pt. 1, pp116-142.

- Staelin, R., & Payne, J., Studies of the Information Seeking Behaviour of Consumers in Cognition and Social Behaviour, eds. J. S. Carroll & John W. Payne 1976, pp185-202.
- Stafford, J. E., Effect of Group Influence on Consumer Brand Preference, Journal of Marketing Research 1966, vol. 3, pt. February, pp68-75.
- Star, S. A., Obtaining Household Opinions From a Single Respondent, Public Opinion Quarterly 1953, vol. 27, Fall, pp386-391.
- Steel, How to Use Emotional Factors that Trigger Sales, 1959, April, pt. 6, vol. 104-109.
- Stem, D. E., Consumer Perception and Evaluation of Pre-Purchase Risk Reduction Methods, Unpublished Phd, Uni. of Washington 1975.
- Stern, B. L., & Gazda, G. M., Risky Shift: An Empirical Investigation and Implications for Industrial Buying Behaviour and Marketing Management, Journal of the Academy of Marketing Science 1975, vol. 3, pt. 3, pp287-295.
- Sternthal, B., & Craig, C. S., Consumer Behaviour: An Information Processing Perspective, Prentice Hall 1982.
- Stephenson, P. R., Identifying Determinants of Retail Patronage, Journal of Marketing 1969, vol. 33, pt. 3, pp57-61.
- Stigher, G., The Economics of Information, Journal of Political Economy 1961, June, vol. 69, pt. 3, pp213-225.
- Storer, R. V., & Stone, W. J., Hand Delivery of Self-Administered Questionnaires, Public Opinion Quarterly 1974, vol. 37, Summer, pp284-287.
- Strauss, G., Tactics of Lateral Relationships - The Purchasing Agent, Administrative Science Quarterly 1962, vol. 7, no. 2, September, pp161-186.
- Streufert, S., Suedfield, P., & Driver, M., Conceptual Structure  $\mu$ , Information Search and Information Utilization, Journal of Personality and Social Psychology 1965, vol. 2, pt. 5, pp736-740.
- Summers, J., Less Information is Better?, Journal of Marketing Research 1974, vol. 11, pt. November, pp467-468.
- Sutcliffe, J. P., & Haberman, M., Factors Influencing Choice in Role Conflict Situations, American Sociological Review 1956, vol. 21, December, pp695-703.

- Svenson, O., Process Descriptions of Decision Making, Organisational Behaviour and Decision Making 1979, ~~19~~ 21, 23, pp86-112.
- Swan, J. E., Experimental Analysis of Predecision Information Seeking, Journal of Marketing Research 1969, vol. 6, May, pp192-197.
- Swan, J. E., Search Behaviour Related to Expectations Concerning Brand Performance, Journal of Applied Psychology 1972, vol. 56, pt. 4, pp332-335.
- Tauber, E. M., Why do People Shop, Journal of Marketing 1972, vol. 36, October, pp46-59.
- Taylor, J. W., The Role of Risk in Consumer Behaviour, Journal of Marketing 1974, vol. 38, April, pp54-60.
- Taylor, R. N., Preferences of Industrial Managers for Information Sources in Making Promotion Decisions, Journal of Applied Psychology 1975, vol. 60, pt. 2, pp269-272.
- Tharp, R. G., Dimensions of Marriage Roles, Marriage and Family Living 1963, vol. 25, November, pp389-404.
- Thompson, D. L., Industrial Advertising and the Purchasing Agent, Journal of Purchasing 1966, vol. 2, August, pp5-16.
- Thorelli, H., Concentration of Information Power Among Consumers, Journal of Marketing Research 1971, vol. 8, November, pp427-432.
- Thorelli, H. B., Becker, H., & Engledow, J., The Information Seekers, Ballinger Pub. Co., 1975.
- Thorelli, H. B., & Becker, H., The Information Seekers: Multinational Strategy Target, California Management Review 1980, vol. 23, no. 1, Fall, pp46-52.
- Tofte, A. R., They Don't Buy Bulldozers the Way They Buy Beer, Industrial Marketing 1960, March, pp86-89.
- Tosi, H. L., The Effects of Expectation Levels and Role Concensus on the Buyer Seller Dyad, Journal of Business 1966, vol. 39, October, pp516-529.
- Toy, D., Monitoring Communication Effects: A Cognitive Structure/Cognitive Response Approach, Journal of Consumer Research 1982, vol. 9, pp66-77.
- Trier, H., Smith, H. C., & Shaffer, J., Differences in Food Buying Attitudes of Housewives, Journal of Marketing 1960, July, pp66-69.

- Troldahl, V. C., A Field Test of a Modified "Two-Step Flow of Communication" Model, Public Opinion Quarterly 1967, vol. 30, pt. 4, pp609-623.
- Tucker, W. T., Human Choice Behaviour: The Relationship Between Effort and the Probability of Reward, in Marketing and Economic Development, AMA 1965 Conference Proceedings, ed. P. D. Bennet, pp411-418.
- Tucker, W. T., The Development of Brand Loyalty, Journal of Marketing Research 1964, vol. 1, pt. 3, pp32-35.
- Tuck, M., How Do We Choose, Methuen 1976.
- Turk, J. L., & Bell, N. W., Measuring Power in Families, Journal of Marriage and the Family 1972, May, vol. 34, pp215-222.
- Tybout A., & Hauser, J., A Marketing Audit Using a Conceptual Model of Consumer Behaviour: Application and Evaluation, Journal of Marketing 1981, vol. 45, Summer, pp82-101.
- Udell, J. G., Prepurchase Behaviour of Buyers of Small Electrical Appliances, Journal of Marketing 1966, vol. 30, October, pp50-52.
- Utterback, J. M., Product and Process Innovation in a Changing Competitive Environment, Strathclyde Conference Paper 1977, September.
- Vaughn, R. L., & Hansotia, B. J., A Multi Attribute Approach to Understanding Shopping Behaviour, Journal of the Academy of Marketing Science 1977, vol. 5, pt. 3, pp281-294.
- Vidich, A. J., Methodological Problems in the Observation of Husband Wife Interaction, Marriage and Family Living 1956, vol. 18, August, pp324-329.
- Wallach, M. A., & Kogan, N., Journal of Abnormal and Social Psychology 1964, vol. 68, no. 3, pp263-274.
- Webster, F. E., Communications and Diffusion in Industrial Markets, European Journal of Marketing 1971, vol. 5, pt. 4, pp178-188.
- Webster, F. E., Informal Communication in Industrial Marketing, Journal of Marketing Research 1970, vol. 7, pt. 2, May, pp186-189.
- Webster, F. E., Modelling the Industrial Buying Process, Journal of Marketing Research 1965, vol. 2, November, pp370-376.
- Webster, F. E., New Product Adoption in the Industrial Marketing, Journal of Marketing 1969, vol. 33, pt. 33, July, pp35-39.



- Webster, F. E., The Applicability of Communication Theory to Industrial Markets, Journal of Marketing Research 1968, vol. 5, pt. 4, pp426-428.
- Webster, F. E., The Industrial Salesman as a Source of Market Information, Business Horizons 1965, Spring, pp77-82.
- Webster, F. E., & Wind, Y., A General Model for Understanding Organisational Buyer Behaviour, Journal of Marketing 1972, vol. 36, pt. 2, April, pp12-19.
- Weigard, R. E., Identifying Industrial Buying Responsibility, Journal of Marketing Research 1966, vol. 3, February, pp81-84.
- Weigard, R. E., Why Studying the Purchasing Agent is Not Enough, Journal of Marketing 1968, vol. 32, January, pp41-45.
- Weitz, C., & Wright, P., Retrospective Self Insight on Factors Considered in Product Evaluation, Journal of Consumer Research 1979, vol. 6, December, pp256-269.
- Werbel, R. A., The Measurement of the Relative Influence of Husband and Wife Upon a Purchase Decision, Journal of the Academy of Marketing Science 1976, vol. 4, pt. 3, pp631-643.
- Westbrook, R. A., & Fornell, C., Patterns of Information Source Usage Among Durable Goods Buyers, Journal of Marketing Research 1979, vol. 16, August, pp303-312.
- Westfall, R., Psychological Factors in Predicting Product Choice, Journal of Marketing 1962, vol. 26, pt. 2, pp34-40.
- Wicking, J. B., Prepurchase Information Search Among Household Durable Buyers, M.Phil., University of Edinburgh 1975.
- Wilding, J., & Bauer, R. A., Consumer Goals & Reactions to a Communication Source, Journal of Marketing Research 1968, vol. 5, February, pp73-77.
- Wilkes, R. E., Husband-Wife Influence in Purchase Decisions - A Confirmation and Extension, Journal of Marketing Research 1975, vol. 7, May, pp224-227.
- Wilkie, W. L., Analysis of Effects of Information Load, Journal of Marketing Research 1974, vol. 11, November, pp462-466.
- Wilkie, W. L., & Farris, P. W., Consumer Information Processing: Perspectives and Implications for Advertising, Report No. 76-113, 1976, August.
- Wilkie, W. L., & Pessemier, E. A., Issues in Marketings Use of Multi-Attribute Attitude Models, Journal of Marketing Research 1973, vol. 10, November, pp428-441.

- Williams, J., & Dardis, R., Shopping Behaviour for Soft Goods and Marketing Strategies, Journal of Retailing 1972, vol. 48, Fall, pp32-41, 126.
- Wilson, A., How Industry Can Cross the Great Divide, Journal of Marketing 1980, January, pp49-54.
- Wilson, C., & Alexis, M., Basic Framework for Decisions, Journal of Academy of Management 1962, August, pp150-164.
- Wilson, D. T., Industrial Buyers Decision Making Styles, Journal of Marketing Research 1971, vol. 8, November, pp433-436.
- Wilson, D. T., Models of Organisational Behaviour: Some Observations, in Buyer/Consumer Information Processing, ed. G. D. Hughes & M. L. Ray, Univ. of North Carolina Press 1974, pp136-144.
- Wind, Y., A Reward-Balance Model of Buying Behaviour in Organisations, in New Essays in Marketing Theory ed. G. Fisk, 1971, Boston-Allyn & Bacon, pp206-217.
- Wind, Y., Industrial Source Loyalty, Journal of Marketing Research, 1970, vol. 7, pp450-457.
- Wind, Y., The Boundaries of Buying Decision Centres, Journal of Purchasing and Marketing Management 1978, vol. 14, pt. 2, Summer, pp23-29.
- Wind, Y., & Cardozo, R., Industrial Marketing Segmentation, Industrial Marketing Management 1974, vol. 3, pp153-165.
- Wind, Y., Green, P. E., & Robinson, P., The Determinants of Vendor Selection, Journal of Purchasing 1968, vol. 4, pt. 3, pp29-41.
- Wind, Y., & Webster, F., Industrial Buying as Organisational Behaviour: A Guideline for Research Strategy, Journal of Purchasing 1972, vol. 8, pp5-16.
- Wind, Y., & Webster, F. E., On the Study of Industrial Buying Behaviour: Current Practices and Future Trends, Industrial Marketing Management 1972, vol. 4, pp411-416.
- Witt, R. E., & Bruce, G. D., Purchase Decisions and Group Influence, Journal of Marketing Research 1970, vol. 7, pt. 4, pp533-535.
- Wolfe, D. M., Power and Authority in the Family, in Studies in Social Power, ed. D. Cartwright, University of Michigan, 1959, pp99-117.

- Wolgast, E. H., Do Husbands or Wives Make the Purchasing Decision, Journal of Marketing 1958, vol. 23, October, pp151-158.
- Wood, D., Consumer Durables: Differentiation Strategy and Consumer Response in Relation to Real and Apparent Risk, European Journal of Marketing 1972, vol. 6, no. 4, pp249-256.
- Woodruff, R. B., Brand Information Sources, Opinion Change, and Uncertainty, Journal of Marketing Research 1972, vol. 9, November, pp414-418.
- Woodruff, R. B., Measurement of Consumers' Prior Brand Information, Journal of Marketing Research 1972, vol. 9, August, pp258-263.
- Woodside, A. G., Informal Group Influence on Risk Taking, Journal of Marketing Research 1972, vol. 9, May, pp223-235.
- Woodside, A. G., Is There a Generalised Risk Shift Phenomenon in Consumer Behaviour, Journal of Marketing Research 1974, vol. 11, May, pp225-256.
- Woodside, A. G., & Delozier, M. W., Effects of W.O.M. Advertising on Consumer Risk Taking, Journal of Advertising 1976, vol. 5, Fall, pp12-19.
- Wright, P., Consumer Choice Strategies: Simplifying vs Optimising, Journal of Marketing Research 1975, vol. 12, February, pp60-67.
- Wright, P., Factors Effecting the Cognitive Resistance to Advertising, Journal of Consumer Research 1975, vol. 2, pt. 1, pp1-9.
- Wright, P., The Harassed Decision Maker : Time Pressures, Distractions and the Use of Evidence, Journal of Applied Psychology 1974, vol. 59, October, pp555-561.
- Wright, P. L., The Cognitive Processes Mediating Acceptance of Advertising, Journal of Marketing Research 1973, vol. 10, pt. 1, pp53-62.
- Wright, P., & Barton, W., Time Horizon Effects on Product Evaluation Strategy, Journal of Marketing Research 1977, vol. 14, November, pp429-443.
- Wright, P., & Rip, P., Product Class Advertising Effects on First Time Buyers of Decision Strategies, Journal of Consumer Research 1980, vol. 7, September, pp176-188.
- Young, S., & Feigin, B., Using the Benefit Chain for Improved Strategy Formulation, Journal of Marketing 1975, July, pp72-74.

- Zaltman, G., & Bonoma, T. V., Organisational Buying Behaviour: Hypotheses and Directions, Industrial Marketing Management 1977, vol. 6, pp53-60.
- Zaltman, G., Pinson, C. R. A., & Anglemar, R., Meta Theory and Consumer Research, New York : Holt Rinehart & Winston 1973.
- Zelnick, J., P.A.'s Buyers Differ on Importance of Price, Journal of Purchasing 1964, March, pp83 & 168.
- Zikmund, S., & Scott, J., A Multivariate Analysis of Perceived Risk, Self Confidence and Information Sources, in S. Ward & Wright, Advances in Consumer Research, vol. 1, Association for Consumer Research 1973.
- Zober, M., Determinants of Husband-Wife Buying Roles, in S. Britt, Consumer Behaviour and Behaviour Sciences, 1966, pp224-225, Wiley.

#### Additional References

- Baker, M.J., Marketing: Theory & Practice, London, Macmillan 1976.
- Berent, P., The Depth Interview, Journal of Advertising Research, 1962, vol. 6, pt. 2, pp32-39.
- Cooper, P. & Braithwaite, A., Value for Money of Qualitative Research, Esomar Congress papers, Bristol, 1978, pp-45-66.
- Cooper, P. & Briathwaite, A., Qualitative technology: new perspectives on measurement and meaning through qualitative research, 20th Market Research Society Conference, March 1977, Brighton, pp79-92.
- Cox, D.R., Planning of Experiments, 1958, J.W. Ley & Sons.
- Cochran, W.G. & Cox, G.N., Experitmental Designs, 1957, Chapman & Hall.
- Fletcher, K. & Napier, A., Crisis Point in the T.V. rental industry. European Journal of Marketing, 1983, vol. 17, no.2, pp60-69.
- Foxall, G., Marketing Models of buyer behaviour: a critical view. European Research, 1980, vol. 8, Sept., pp195-206.
- Hawkins, S., The significance of Impulse Buying, Journal of Marketing, 1962, vol. 26, April, pp56-62.

- Kollatt, D. & Willett, R., Is impulse purchasing really a useful concept for marketing decisions, Journal of Marketing, 1969, vol. 33, Jan., pp79-83.
- Kennedy, A., Comments on 'Marketing Models of Buyer Behaviour', European Research, 1986, vol. 9, May, p84-88.
- Kempthorne, O., Design & Analysis of Experiments, 1952, London: Chapman & Hall.
- Krugman, H., The measurement of advertisement involvement, Public Opinion Quarterly, 1968, vol. 30, pp583-596.
- Krugman, H., Brain wave measure of media involvement, Journal of Advertising Research, 1971, vol. 11, p3-9.
- Krugman, H., Low involvement theory in the light of new brain wave research in Attitude Research plays for High Stakes, A.M.A. Conference Proceedings, 1979, p16-24.
- Kruskal, J.B. & Carmone, F.J., 'Monanova: A Fortran - IV Programmes for Monotone Analysis of Variance, Behavioural Science, 1969, vol. 14, p165-6.
- Merton, R. & Kenda;;, P., The focused interview, American Journal of Sociology, 1946, vol. 51, May, pp541-557.
- Miln, D. & Vineall, M., Qualitative Research - a summary of the concepts involved. Journal of Market Research Society, 1977, vol. 21, no.2, pp107-123.
- Sampson, P., Common Sense in Qualitative Research Commodity, 1967, vol. 9, no.1, p30-38.
- Whyte, W., Interviewing in Field Research in Adams, R. & Preiss, J. Human Organisation Research: Field Relations & Techniques, 1960, Dosey Press Inc., Illinois.

FR x  
14  
5'6