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THE DIFFERENTIAL EFFECTS OF VALUE-RELEVANT AND OUTCOME-RELEVANT INVOLVEMENT ON EVOKED SET SIZE

BY

Richard Lawrence Divine

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
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ABSTRACT

THE DIFFERENTIAL EFFECTS OF VALUE-RELEVANT AND OUTCOME RELEVANT INVOLVEMENT ON EVOKED SET SIZE

By

Richard L. Divine

Currently there has been strong debate regarding the issue of whether outcome-relevant and value-relevant involvement produce differential effects, and hence merit recognition as separate constructs. This study sought to address this issue in the context of the effects these two involvement types have on evoked set size. Previous research had only examined outcome-relevant involvement and had consistently found a negative relationship. This research, citing motivational theory, hypothesized that value-relevant involvement would have a positive effect on evoked set size. The primary basis for this hypothesizes is that value-relevant involvement represents intrinsic motivation and research suggests that intrinsic motivation enhances task enjoyment and enthusiasm. As a result value-relevant involved consumers enjoy the shopping task more and thus instead of being motivated to simplify the task by limiting the size of evoked sets, they might actually seek to complicate it by considering more brands than necessary.

For the study a theoretical path model of the evoked set formation process was devised, and measurement scales for each variable in this process were developed. In addition to the two involvement types and evoked set size, five mediating variables were also measured. Four of these; product knowledge, awareness set size, lattitudes of acceptance and number of salient attributes were identified from previous research on evoked sets. The fifth, shopping enthusiasm, was a new variable that had not been

studied before, and was introduced in this study to allow the effects of affect toward the shopping process to be assessed.

In terms of results, sets of hypotheses regarding 21 different bivariate relationships were tested, and 14 received statistically significant support. While most of the hypothesized relationships between the two involvement types and the mediating variables were supported, shopping enthusiasm was the only one of the four mediating variables hypothesized to have a direct effect on evoked set size, that was actually found to have a significant relationship. Consequently, the results of the path analysis indicated that the model did not provide a good fit to the data.

Finally, as hypothesized, a significant positive relationship between value-relevant involvement and evoked set size was found, however the relationship between outcome-relevant involvement and evoked set size was insignificant. This still provides some evidence of differential effects since the significant positive relationship contradicts the accepted view of a negative involvement/evoked set size relationship since this view was based on research findings in which only outcome-relevant involvement was operationalized.

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Dedicated
to the memory of
BARBARA R. DIVINE

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CHAPTER ONE

INTRODUCTION

Involvement has emerged as one of the most prominent concepts in consumer research (Sherrell and Shimp 1982). The primary reason for its importance is because it is the main determinant of how much decision making effort an individual will exert when making a purchase decision (Assael 1984). Consequently almost every stage of the consumer buying process is affected by involvement. How many stores one shops, the number of brands one considers, the amount of information one collects and how deeply one processes purchase related information are all greatly influenced by how involved a consumer is with the purchase (Howard and Sheth 1969, Katonna and Mueller 1954).

One of the most critical issues currently being debated by researchers in this area is whether involvement is actually a single concept or instead represents a conglomeration of related, but conceptually distinct constructs (Johnson and Eagly 1989, 1990, and Petty and Cacioppo 1990). In the marketing literature, involvement has traditionally been treated as a single unidimensional construct that refers to the level of interest or concern a person has toward a purchase, product, or advertisement (Day 1970, Mitchell 1979). This traditional viewpoint has been challenged by two groups of researchers. One group has focused on the issue of whether involvement is truly unidimensional. These researchers have analyzed empirical data and have uncovered anywhere from two to five separate dimensions or components of the construct (Kapferer and Laurent 1985, Lastovicka and Gardner 1979, Zaichkowsky 1985). Because of these findings, serious questions must be

raised about the validity of theories based on research where involvement was operationalized as a unidimensional construct.

Perhaps because this evidence makes it fairly clear that involvement is not unidimensional, the second group of researchers have pushed the issue one step further by not just recognizing multiple dimensions, but actually proposing the existence of several distinct types of involvement. These different involvement types are based on the notion that the interest level one has toward a purchase can be attributed to different sources of concern (Houston and Rothschild 1978, Park and Mittal 1985).

What has resulted then from these alternative viewpoints is a debate over the true conceptual nature of involvement. This debate has centered around one fundamental question: if involvement is not unidimensional, then is it a single construct with multiple dimensions or is it actually several separate constructs? Resolving this debate is important because these alternative conceptualizations imply different operationalizations of the construct. In particular the multiple dimension view sees different involvement types as simply different antecedents to an overall measure or level of involvement. In contrast, the multiple construct view sees these different involvement types as separate constructs. The main implication of this perspective is that it is inappropriate to pool the different involvement types together into an overall measure because it is believed that these types not only have different antecedents, but also have different consequences as well.

Resolving this controversy surrounding the true conceptual nature of involvement is critical given its prominent role in the established theories of

consumer decision making. In order to validate the need to recognize multiple types of involvement, it must be shown that these different types are not only elicited by different antecedents, but have different behavioral consequences as well. If these different involvement types can be shown to have differential relationships with other variables in the consumer decision making process, then it would be hard to justify continuing to pool or integrate them together as a single construct. This will be the primary focus of the present study.

While many different typologies have been proposed by those researchers subscribing to a multiple construct perspective in the marketing literature, the position taken here is all of these types can be condensed into the two basic forms of involvement delineated by Johnson and Eagly (1989) in their meta-analysis of the construct. The first form, value-relevant involvement, is involvement induced by a perceived linkage between a psychological object and one's important personal values. Value-relevant involvement would include those conceptualizations that are theoretically consistent with the original version of the concept, ego involvement (Johnson and Eagly 1989). The second form, outcome-relevant involvement, is involvement induced by a perception that a psychological object might have an effect on one's ability to obtain desirable outcomes. Outcome-relevant involvement would include those conceptualizations of the construct that are not consistent with value-relevant or ego involvement.

The overall purpose of this study is to examine the issue of whether outcome-relevant and value relevant involvement differentially effect consumers in terms of how they form evoked sets. An evoked set is the subset of the brands on the market a particular consumer will consider when making a purchase (Campbell 1969,

Howard and Sheth 1969). Currently the accepted view in the marketing literature is that involvement has a negative effect on the size of one's evoked set (Gensch and Javalgi 1987, Harrell 1986, Rothschild and Houston 1977). However, the theoretical and empirical research that supports this finding has typically only dealt with outcome-relevant forms of involvement (Belonax and Javalgi 1989, Houston and Rothschild 1978). This research will attempt to make the case, both conceptually and empirically, that outcome-relevant and value-relevant involvement have the opposite effect on evoked set size. Specifically it is believed that while outcome-relevant involvement has a negative relationship with evoked set size, value-relevant involvement is actually positively related. If this hypothesis is supported, it would demonstrate that the two involvement types do indeed have different consequences. Such a finding would not only extend the literature on the effects of involvement on evoked set formation, but in addition, give greater credence for the need to recognize both types of involvement as separate constructs.

CHAPTER TWO

LITERATURE REVIEW

This chapter is divided into four main sections: the first will review the literature on involvement types, the second will synthesize this literature and identify two primary underlying types of involvement, the third will review the literature on the effects of involvement on evoked set size, and the fourth will discuss how the effects of value-relevant involvement on evoked set size might differ from what is in the literature.

REVIEW OF INVOLVEMENT TYPES

Social Psychology Literature

All the various manifestations of involvement that have appeared in the literature can be traced back to the initial concept of ego involvement, which originated in the field of social psychology. The works of Allport (1943) and Sherif and Cantril (1947) are generally credited with providing the seminal treatments of the subject. Allport (1943) defined ego involvement as "a condition of total participation of the self" (p.459) and described the ego involved person as being "seriously committed to a task" (p. 459). Sherif and Cantril (1947) defined it as the extent to which an object or idea touches upon one's ego or self concept and it was later equated with the "intrinsic importance of an object" (Sherif and Hovland 1961).

Subsequently Zimbardo (1960) developed a different version of involvement which was labeled response involvement. This was defined as "an individual's concern with the consequences of his response" (p.87). While definitionally this conceptualization is rather broad, his operationalizations of response involvement dealt exclusively with concern about the social acceptability of one's position on an issue (Johnson and Eagly 1989). Involvement was heightened in Zimbardo's experiments by forcing subjects to express publicly their positions on certain issues that were otherwise uninvolving. As a result, response involvement has subsequently been associated with situations where a person has little inherent interest or concern in the issue itself but is concerned about the impression their opinion on the issue will have on others (Johnson and Eagly 1989).

Petty and Cacioppo (1979) offered another variation of the concept which they labeled issue involvement. This was defined as "the extent to which the attitudinal issue under consideration is of personal importance" (p.1915). While Petty and Cacioppo considered issue involvement to be the same construct as ego involvement, it is in fact a much broader conceptualization. Ego involvement only occurs when an issue is intrinsically important or affects one's self concept (Sherif and Hovland 1961). Issue involvement on the other hand would include all issues considered important, regardless of whether involvement was evoked by an intrinsic interest in the subject

matter or by utilitarian concerns about how the issue will affect one's ability to obtain desirable outcomes in the external environment.

Johnson and Eagly (1989) performed a meta analysis on the effect of involvement on persuasion and found different results depending upon the type of involvement that was operationalized. In ego involvement studies, involvement had a negative effect on persuasion (significant attitude change was obtained for low involvement receivers, but not for those with high involvement), while in studies that manipulated non-ego forms of involvement, a significant interaction between involvement and argument strength was found (significant attitude change for high involvement receivers occurred when strong arguments were used). Johnson and Eagly felt these differences in empirical results warranted a reclassification of Petty and Cacioppo's issue involvement into ego and non-ego forms of involvement. Johnson and Eagly's (1989) value relevant involvement is essentially a relabeling of ego involvement, and is said to occur when an issue activates one's enduring values. Their other type was labeled outcome-relevant involvement and is based on the operationalizations of Petty and Cacioppo. This is said to occur when individuals believe an issue will have a significant effect on their ability to obtain desirable outcomes.

Petty and Cacioppo (1989) strongly challenged Johnson and Eagly's assertion that issue involvement actually represents two conceptually distinct types of involvement (value and outcome

relevant). They contend for the sake of parsimony the two should remain integrated because in both types what is critical is that the issue is perceived as being important to the self, regardless of whether this importance is due to a linkage with one's values or one's goals. While they acknowledge that value-relevant issues are generally more important to a person than outcome-relevant issues, this does not mean that they are operating on different theoretical dimensions. Rather they assert that any differences observed between the two are ones of magnitude or position along the same personal importance continuum. In terms of the discrepancy in empirical findings they point out that value-relevant involvement, as operationalized in previous studies, was confounded with a host of other variables (knowledge, commitment, confidence) that all acted to make an ego involved person more resistant to counterattitudinal messages.

Marketing Literature

While the marketing literature does not feature the same kind of formal debate over the existence of multiple types of involvement as appears in social psychology, it is readily acknowledged that there is little agreement among marketers about what exactly involvement is (e.g. Gensch and Javalgi 1987, Muncy and Hunt 1984, Stone 1984, Tybejee 1979). This literature contains such a wide variety of approaches toward the concept that it has been frequently criticized for not developing a "generally accepted" view on how involvement should be conceptualized and defined (e.g. Houston and Rothschild 1978, Muncy and Hunt 1984, Park and Mittal 1985, Stone 1984).

After analyzing this diverse and unstructured literature, it is believed that three distinct perspectives of involvement can be identified. The traditional viewpoint sees involvement as a simple unidimensional construct and emphasizes the differences between consumers with high and low levels. The multiple dimension perspective sees a single underlying type of involvement but acknowledges that it is characterized by much greater complexity than is depicted in the traditional view. This complexity is reflected by the identification of multiple dimensions or components within the involvement construct and the recognition that there are several conceptually distinct categories of antecedents which can elicit it. The multiple type perspective sees several conceptually distinct types of involvement and emphasizes the characteristics that differentiate them. In relation to the social psychology debate over involvement types, the first two perspectives share with Petty and Cacioppo (1990) the belief that involvement is a single unified construct, while the third expresses a theoretical position consistent with Johnson and Eagly's multiple involvement typology.

The traditional conceptualization of involvement as a single unidimensional construct can be traced back to Krugman's (1965) seminal work on the subject. Krugman's characterization of a low involvement consumer profoundly influenced subsequent marketing thought. According to Lastovicka and Gardner (1977), his research forced consumer researchers to realize that the high involvement attitudinal theories they had borrowed from social psychology were

not applicable in explaining the mundane and trivial decision making that seems to typify consumer behavior. As a result, the primary focus of researchers taking this perspective has been in the development of theories that explain the process of low involvement decision making (e.g. DeBruicker 1972, Ray 1973, Robertson 1976). Because this research tended to focus on uninvolved consumers, the issue of whether there might be multiple types of involvement (and therefore multiple types of high involvement consumers) was generally not addressed. As a result, the broad unidimensional view of involvement that appeared in this research was not specifically advocated over others, but rather was just implicitly assumed to be a valid representation of the concept.

The second perspective is the multiple dimension view of involvement. This arose out of attempts by involvement researchers to fully explicate what exactly involvement is so it could be operationalized in a more consistent manner across research studies. Problems with the concept developed because there has never been a universally accepted definition of involvement, even within social psychology, and because the concept has been used in such a wide variety of contexts (e.g. attention to advertising, information processing, learning, purchasing behavior). As a result many researchers have decried the confusing number of definitions and operationalizations of involvement which have resulted (Antil 1984, Cohen 1983, Houston and Rothschild 1978, Muncy and Hunt 1984, Sherrell and Shimp 1982, Stone 1984, Zaichkowsky 1985). Many of

those subscribing to this viewpoint were interested in actually measuring involvement rather than just manipulating it and thus sought to develop definitions of the concept that could capture its full meaning and be valid across many contexts (Antil 1984, Sherrell and Shimp 1982, Zaichkowsky 1985). These researchers focused their attention on discerning what the underlying dimensions of involvement were rather than just examining its consequences (e.g. more attention, deeper processing, more deliberation). Once the dimensions or components of involvement were identified, the concept could then be properly measured through the development of scales to capture each of its dimensions.

Lastovicka and Gardner (1972) analyzed empirical data using multidimensional scaling and confirmatory factor analysis and uncovered two primary components of involvement: commitment (brand loyalty) and normative importance (connections to one's values). Zaichkowsky (1985) examined the literature and identified three areas that affect one's involvement with an object: personal factors (goals and values of the person that relate to the object), physical factors (characteristics of the object that increase interest) situational factors (temporary circumstances that increase interest in the object). Laurent and Kapferer (1985) used factor analysis to identify five facets of involvement: interest in the product, pleasure derived from the product, sign value of the product, perceived negative consequences of a mispurchase, and the probability of a mispurchase. Celsi and Olson (1988) identified two antecedents of

involvement: intrinsic sources of personal relevance and situational sources of personal relevance.

While there are some differences in the findings of these researchers, they do nevertheless provide rather convincing evidence that involvement is multidimensional and thus raise serious questions about the validity of the traditional perspective. This second perspective explicitly recognizes that because involvement has multiple dimensions, two people who are equally involved with a purchase could be quite different in terms of the source of their interest or concern.

The final perspective sees involvement not as a single concept but rather as a family of related but conceptually distinct types. This multiple type perspective developed as an attempt by researchers to impose some structure on the concept given the wide diversity in definitions and approaches that have been taken (Houston and Rothschild 1978, Muncy and Hunt 1982). The creation of such a structure allows different conceptualizations of involvement to be classified into their appropriate type instead of continuing to lump them all together as a single construct.

Perhaps the most influential of these involvement typologies was created by Houston and Rothschild (1978). They recognized that involvement may result as a consequence of both the purchase circumstances (situational involvement) as well as the idiosyncratic

concerns and interests of the individual (enduring involvement). Situational involvement is external to the consumer and refers to the ability of the situation to elicit from consumers, concern for their behavior. This is said to occur when consumers perceive adverse consequences will result if their behavior in a situation is sub-optimal. This type of involvement is the one most frequently addressed in marketing studies and thus basically reflects how the concept is viewed in the traditional perspective. It is determined jointly by product characteristics that may raise concern (e.g. perceived heterogeneity of price, complexity, quality among purchase alternatives) as well as the individual's concern about the social acceptability of the purchase. It is considered to be extrinsically oriented because the involvement is induced by the situation the person is in (i.e., the need to make a purchase that has some level of perceived risk) and not by an intrinsic interest in the product (Arora 1982, Muncy and Hunt 1984).

Houston and Rothschild's second type, enduring involvement, is internal to the consumer, and refers to the strength of the pre-existing relationship between the individual and the product. Enduring involvement is closely related to value-relevant involvement and is based on two elements, one is the person's previous experiences with the product or purchase situation and the second is linkage between the product and the individual's value system. The primary distinguishing feature of enduring involvement is that it is elicited by intrinsic interest in the product and not by situational

concerns regarding the product's purchase. Thus, unlike situational involvement, it tends to be present even during those times in which the product is not being considered for purchase.

Park and Mittal (1985) provide an alternative framework that recognizes two other forms of involvement: cognitive and affective. In their typology, involvement is categorized based on the nature of the underlying motive for one's concerns. Cognitive involvement is motivated by the utilitarian motive (concern about the cost/benefits of the purchase) while affective involvement is motivated by the value-expressive motive (concern about the effect of the purchase on one's self-concept image). This distinction is important because Park and Mittal believe that an overemphasis on cognitive involvement in past research has resulted in the misclassification of many consumers with high affective involvement as being uninvolved, and has led to the widely held but possibly overstated view that consumers are uninvolved with most of their purchase decisions (Hupfer and Gardner 1971, Kassarjian 1978).

Product vs. purchase involvement (Hawkins, Best and Coney 1983) and product vs. task involvement (Clarke and Belk 1979) are two other typologies appearing in the marketing literature. These two are closely related to the Houston and Rothschild framework and differentiate between one's involvement with a particular product and one's involvement with the task of purchasing that product. They recognize people may be highly involved in the purchase of a product

that is not involving to them (e.g., a dishwasher) or may be uninvolved in the purchase of a product that is very involving to them (e.g., the repurchase of their favorite brand of cigarettes).

In terms of evaluating the three perspectives of involvement in the marketing literature, it seems clear the traditional unidimensional perspective has little to offer. It is contradicted both by the empirical findings of the multiple dimension perspective (which provided evidence that involvement is not unidimensional) and the qualitative distinctions emphasized in the multiple type perspective. The question of whether involvement should be considered as several separate constructs or rather as a single multidimensional one is conceptually equivalent to the Johnson and Eagly/Petty and Cacioppo debate in social psychology, and has likewise yet to be resolved.

The multiple type conceptualization of involvement differs from the multiple dimension perspective in that the former recognizes that the nature of the involvement elicited by different types of antecedents may be conceptually distinct. As a result these different types of involvement may produce disparate consequences. Thus while the multiple dimension view established that involvement may have different causes, the multiple type perspective takes it a step farther by recognizing that the involvement elicited by different causes may produce differential effects.

Since it is more parsimonious to conceptualize involvement as a single construct, it is incumbent upon those advocating the multiple type perspective to clearly demonstrate that several conceptually distinct types of involvement do in fact exist. It is believed that the clearest means of resolving this issue is to see if the different types of involvement identified in the literature actually generate conceptually different types of consumer responses. In other words if it can be shown that the consequences of one type of involvement are different from those of another, then it would seem to invalidate the viewpoint that these involvement types should be pooled together as a single variable. If however the consequences are the same or similar, then it would be difficult to justify the additional complexity of the multiple involvement perspective.

Synthesis of Involvement Types

Because the concept of involvement has spawned such a diverse and extensive literature, it is not surprising that there really is no single universally accepted framework for delineating involvement into types. As has been detailed previously, numerous typologies have been suggested by researchers from within and across different disciplines, but a consensus framework has yet to emerge. As a result, before the validity of a multiple involvement perspective can be empirically investigated, a synthesis of the literature is required in order to reveal the fundamental types of involvement that underlie the entire body of work on the concept. The goal of such a synthesis is not to add yet another new perspective on involvement types to the

literature, but rather to facilitate empirical testing by integrating the existing typologies into a more cohesive and organized structure.

Since involvement is considered by many researchers to be a motivational state (Celsi and Olson 1988, Johnson and Eagly 1989, Park and Mittal 1985, Petty and Cacioppo 1986), then a valid criterion that can be used for differentiating and integrating involvement conceptualizations is the type of motivational orientation they represent. According to Reeve (1992), motivation is defined as the antecedent conditions that energize and direct behavior. Behavior can be energized and directed through two primary types of motivation: intrinsic and extrinsic. Intrinsicly motivated behavior is defined as "behavior done solely for the interest and enjoyment inherent in performing a given activity (p.141)." Extrinsically motivated behavior is that which is performed in order to obtain some reward or avoid some punishment (Reeve 1992). Thus using motivational orientation as a classification criterion, involvement will be divided into intrinsically and extrinsically motivated types.

In order to avoid the confusion that might result from introducing a new involvement typology to the literature, this research will identify these two main types of involvement using the terminology developed by Johnson and Eagly (1989). Value-relevant involvement will be used as the designation for those types of involvement that are intrinsically motivated. This label signifies that such people find an issue to be intrinsically involving due to a

perceived linkage between that issue and their personal values. This would include those conceptualizations in which involvement is elicited by an inherent interest in or concern about the issue. Value-relevant involvement motivates people to perform issue-related tasks because such activities are found to be self-rewarding.

Outcome-relevant involvement will be used to designate those types of involvement that are extrinsically motivated. This label signifies that such people become involved, not because they find the issue itself to be of inherent interest, but rather because they perceive the issue might have an effect on their outcomes. Outcome-relevant involvement would include those conceptualizations in which involvement is elicited by concerns about the consequences an issue will have on people's ability to achieve their goals. This type of involvement motivates people to perform issue-related tasks because such activities are seen as instrumental to the attainment of rewards or the avoidance of punishments.

Table 1.1 summarizes those involvement types discussed in the literature review that are consistent with value-relevant involvement. Table 1.2 summarizes those involvement types discussed in the literature review that are consistent with outcome-relevant involvement. Table 1.3 summarizes the antecedents of value-relevant forms of involvement discussed in the literature review. Table 1.4 summarizes the antecedents of outcome-relevant forms of involvement discussed in the literature review.

TABLE 1.1

INVOLVEMENT TYPES CONSISTENT WITH VALUE-RELEVANT INVOLVEMENT

Type	Study	Description	Operationalization
value-relevant involvement	Johnson and Eagly (1990)	motivational state induced by an association between an activated attitude and one's enduring values	identified from the results of a meta analysis
ego involvement	Sherif and Cantril (1947)	extent to which and an object touches upon one's self concept	sampled members of groups that were actively taking a stand on an issue.
affective involvement	Park and Mittal (1985)	goal directed arousal elicited by interest in enhancing one's self concept and projecting a desired self image.	manipulated by instructing subjects that brands they were to evaluate varied greatly in terms of their brand image and personality

TABLE 1.1 (Continued)

INVOLVEMENT TYPES CONSISTENT WITH VALUE-RELEVANT INVOLVEMENT

Type	Study	Description	Operationalization
product involvement	Clarke and Belk (1979)	involvement elicited by the perceived importance of the product	manipulated by assigning subjects to high and low involvement product categories.
enduring involvement	Houston and Rothschild (1978)	strength of the preexisting relationship between an individual and the product	measured through scales which assessed ongoing interest in a product category

TABLE 1.2

INVOLVEMENT TYPES CONSISTENT WITH OUTCOME-RELEVANT INVOLVEMENT

Type	Study	Description	Operationalization
outcome-relevant involvement	Johnson and Eagly (1990)	motivational state induced by an association between an activated attitude and one's ability to obtain desirable outcomes	identified from results of a meta analysis
response involvement	Zimbardo (1960)	an individual's concern with the consequences of his response	manipulated by forcing subjects to publicly express their position an issue
issue involvement	Petty and Cacioppo (1979)	the extent to which an attitudinal issue is of personal importance	manipulated by telling subjects an issue will have a personal effect on them
cognitive involvement	Park and Mittal (1985)	goal directed arousal elicited by concerns about the functional costs and benefits of a product	manipulated by telling subjects there were major functional differences between brands.

TABLE 1.2 (continued)

INVOLVEMENT TYPES CONSISTENT WITH VALUE-RELEVANT INVOLVEMENT

Type	Study	Description	Operationalization
purchase involvement	Clarke and Belk (1979)	involvement elicited by the importance of the purchase situation	manipulated by telling subjects they had to make a gift purchase for a friend
situational involvement	Houston and Rothschild (1978)	the ability of a situation to elicit from individuals concern for their behavior	manipulated by telling subjects an issue would personally affect them

TABLE 1.3

ANTECEDENTS OF VALUE-RELEVANT INVOLVEMENT

Antecedent	Study	Description	Operationalization
intrinsic sources of personal relevance	Celsi and Olson (1988)	characteristics within the individual that cause one to be involved	measured with Zaichkowski's PII scale
personal factors	Zaichkowsky (1985)	goals and values of the person that relate to the object	measured with items from PII scale
hedonic value	Laurent and Kapferer (1985)	the ability of an object to provide pleasure and affect	measured with 3 item scale
sign value	Laurent and Kapferer (1985)	perceived expressive value of a product	measured with 3 item scale

TABLE 1.4

ANTECEDENTS OF OUTCOME-RELEVANT INVOLVEMENT

Antecedent	Study	Description	Operationalization
situational sources of personal relevance	Celsi and Olson (1988)	physical and social aspects of the environment that cause one to be involved	manipulated by having a lottery giving away the product subjects were to evaluate
product factors	Zaichkowsky (1985)	characteristics of the product that increase interest	measured with items from PII scale.
situational factors	Zaichkowsky (1985)	temporary circumstances that increase interest in the product	measured with items from the PII scale
risk importance	Laurent and Kapferer (1985)	the perceived importance of the consequences of a purchase	measured with 3 item scale
risk probability	Laurent and Kapferer (1985)	the subjective probability of a mispurchase	measured with 2 item scale

As stated, it is believed the most important difference between value-relevant and outcome-relevant involvement lies in the area of motivational orientation. Empirical research on the consequences of intrinsic and extrinsic motivation has uncovered numerous differences in response tendencies. These findings have shown that an extrinsic motivational orientation leads to a reduction in the enjoyment of the activity (Condry 1977, Lepper, Greene, and Nisbitt 1973), a reduction in learning and task mastery (Condry 1977, 1987), more short cuts in the performance of the activity (Pittman, Boggiono, and Rubble 1983), more frustration with the activity (Garbarino 1975), a preference for simpler tasks (Pittman, Emery, and Boggiono 1982), and a faster termination of the activity when a satisfactory outcome is achieved (Kruglanski, Stein & Riter 1977). Essentially these findings show extrinsic motivation lessens the enjoyment one receives from performing an activity. Intrinsic motivation on the other hand increases enjoyment of the activity since by definition it is brought about by the inherent pleasure one feels when performing the activity (Reeve 1992). In a marketing context then, it is hypothesized that value-relevant involvement is positively related and outcome-relevant involvement is negatively related to a consumer's enjoyment of the purchasing task.

Besides motivational orientation, the two types of involvement can also be differentiated by the following conceptual distinctions:

- With value-relevant involvement the individual's interest lies in the product itself, while with outcome-relevant involvement their interest

is focused on the outcome of the purchase. (Hawkins, Best, and Coney 1992)

- With value-relevant involvement, interest in the product is ongoing, while with outcome-relevant the interest occurs only at the time of purchase. (Houston and Rothschild 1978)
- Value-relevant involvement is based on an inherent liking of the product, while outcome-relevant involvement is based on a desire to avoid the consequences of a mispurchase (Bloch and Bruce 1984, Laurent and Kapferer 1985)
- Value-relevant involvement is based on value expressive motives while outcome-relevant involvement is based on utilitarian motives (Park and Mittal 1985)

It should be noted that while these two types of involvement are considered to be separate and distinct they are not thought to be mutually exclusive. There is no evidence to suggest that a consumer cannot simultaneously experience both value-relevant and outcome-relevant forms of involvement. For example, in regard to the purchase of an automobile, consumers may be both intrinsically interested in the different cars they are considering while at the same time feel concerned about making the correct decision regarding which of the cars to purchase. Thus studies of these two should not be attempts to compare consumers who have been categorized as being either value-relevant or outcome-relevant, but rather should seek to identify the differential effects of both within consumers.

EVOKED SETS

An evoked set (also called a consideration set) is the subset of the brands in a product category that a particular individual considers when making a purchase (Campbell 1968, Howard and Sheth 1969). Since each product category contains a vast number of brands from which to choose, consumers use evoked sets to simplify their decision process. The evoked set is culled from a consumer's awareness set, which are those brands in the product category of which the consumer is aware. Brands in the consumer's awareness set but not included in the evoked set are considered to be in either the inept set or the inert set (Narayana and Markin 1975). The inept set is brands rejected from consideration because the consumer evaluates them negatively, while the inert set is brands the consumer evaluates positively or neutrally but are rejected because they are not rated positively enough to merit inclusion in the evoked set or are thought to be unavailable for purchase.

The concept of the evoked set, with its view that consumers only seriously consider a small number of the available brands when making a purchase decision, has received wide spread acceptance and solid empirical validation from within the marketing literature (e.g. Campbell 1969, Parkinson and Reilly 1979). The only really notable area of ambiguity in the literature revolves around the operationalization of evoked sets. Some studies (e.g. Jarvis and Wilcox 1973, Belonax and Mittelstaedt 1978, Belonax and Javalgi 1989) have operationalized evoked sets by asking respondents to

indicate which brands they find acceptable for purchase. Others (e.g. Ostlund 1973, Parkinson and Reilly 1980, Eroglu et. al. 1983) have operationalized it by asking respondents to indicate which brands they would consider for purchase. This difference could affect the measurement of evoked sets since brands may be seen as acceptable for purchase and yet still not be considered during a particular purchase situation (perhaps because a sufficient number of other brands are more acceptable).

The "considered brands" operationalization is the one that seems more consistent with the generally accepted definition of the construct, however there are certain situations in which the "acceptable brands" operationalization may be more appropriate. The key to this issue is whether one views the evoked set as a relatively stable entity that the consumer uses to guide purchase decisions over time, or rather as the specific brands the consumer considers during one particular purchase occasion. If one takes the former viewpoint, then acceptable brands may be a more valid operationalization, since situational characteristics (e.g. stockouts, sales promotions) may affect the composition of the evoked sets on specific occasions but not reflect a consumer's general consideration tendencies over time. This would be particularly relevant for measuring evoked sets for products with short purchasing cycles (e.g. grocery and drug store items), since their frequent purchase would likely motivate consumers to maintain a stable and enduring evoked set to help guide their frequent purchase decisions. If the product has a long purchasing cycle then it

is more likely that the evoked set would be formed anew on each purchase occasion, and the "considered brands" operationalization would probably be more appropriate. A review of some of the different studies of evoked sets and their operationalizations of the construct appear in Table 5.

In terms of the types of research that have been done on evoked set size, it has largely been directed toward two areas: examinations of the determinants of evoked set size and examinations of the processes used by consumers to select brands for their evoked sets. This paper will focus on the former. Empirical research on evoked set size has found positive correlations between it and awareness set size (Brown and Wildt 1987) education (Maddox, Gronhaug, Homans and May 1978) extent of information search (Stewart and Punj 1982, Ostlund 1973), temporal proximity to purchase (Eroglu et. al. 1983), and venturesomeness (Gronhaug 1974). Evoked set size has been found to be negatively correlated with the number of evaluative criteria used, information variability (Belonax and Mittlestaedt 1978) brand loyalty (Ostlund 1973, Campbell 1969), variability of product class quality (Belonax and Javalgi 1989) and age (Maddox, Gronhaug, Homans and May 1978).

THE EFFECTS OF INVOLVEMENT ON EVOKED SET SIZE

Involvement has also been hypothesized to be a prominent determinant of evoked set size. While the accepted view in the marketing literature is that there is a negative relationship between the

TABLE 1.5

REVIEW OF EVOKED SET STUDIES

Study	Design	Products	Operationalization
Campbell (1968)	survey of buyers	toothpaste, detergent	respondents asked how many brands they **consider** before making a purchase
Ostlund (1973)	survey of current buyers	automobiles	respondents asked to name (unaided) the brands they are **actually considering**
Jarvis and Wilcox (1973)	survey of buyers	coffee, napkins detergent	respondents asked to identify **acceptable alternatives** from a list of available brands
Belonax and Mittelstaedt (1978)	experiment with students	micro-wave ovens	subjects asked to indicate which of six unnamed brands are **acceptable for purchase**

TABLE 1.5 (CONTINUED)

REVIEW OF EVOKED SET STUDIES

Study	Design	Products	Operationalization
Parkinson and Reilly (1980)	experiment with students	toothpaste and deodorant	subjects asked to indicate which brands they would **consider** if faced with an immediate purchase decision
Eroglu, Omura and Machleit (1983)	survey of buyers	automobiles	respondents were asked to identify all models they would **seriously consider** if they were to buy one today
Stewart and Punj (1983)	survey of buyers	automobiles	respondents asked to indicate the **price range, sizes and makes they are willing to consider.**
Nedungadi (1990)	experiment with students	fast food, mixers. condiments	subjects asked to make a choice and then indicate **which other brands they had considered**

two (Belonax and Javalgi 1989, Lastovicka and Gardner 1978, Rothschild and Houston 1977), there has been some evidence to suggest that the correlation is actually positive. Gronhaug (1974) found that buyers who indicated that they were interested in cars (an antecedent of value-relevant involvement) considered significantly more car models than those with moderate or little interest in cars. Campbell (1968) meanwhile, found a strong positive relationship between perceived price importance (an antecedent of outcome-relevant involvement) and evoked set size. However due to two methodological problems the validity of Campbell's findings are open to question. First, Campbell only tested low involvement products (toothpaste and detergent) and second evoked set size was measured through self reports of the number of brands respondents claimed they usually considered instead of recording which specific brands respondents actually did consider in a real or simulated buying situation.

Despite these findings, the predominant view in the literature is that involvement has a negative effect on evoked set size and this view is supported by the findings of a number of empirical research studies. Jarvis and Wilcox (1973) found larger mean evoked sets for product categories rated low in importance than for those rated more highly. Rothschild and Houston (1977) found evidence to suggest that the more important a consumer feels an attribute is, the more intolerant they will be of brands with less than ideal performance on that attribute (i.e. the more narrow their latitudes of acceptance).

While they did not attempt to correlate involvement with evoked set size, a negative relationship was inferred since it can be assumed the more involved one is with a purchase the more importance will be placed on the attributes. Since importance was found to cause narrower latitudes of acceptance, the end result of higher involvement would be fewer brands being found acceptable, and hence smaller evoked sets.

In the Belonax and Javalgi (1989) study, involvement was operationalized through the use of the Consumer Involvement Matrix (CIM), a formula that divides the number of attributes considered by the average width of the latitudes of acceptance for those attributes. With the CIM, involvement is defined not by the level of concern about the purchase but rather by the nature of consumer responses. For example, a high involvement consumer was defined as one who evaluated brands on many attributes with narrow latitudes of acceptability. Thus while a negative relationship was found between involvement and evoked set size, there was considerable bias in these results since involvement was operationalized so as to be synonymous with the stringency of the criteria used to select the evoked set. Nevertheless while individually these studies have some limitations, together they provide fairly strong support for the theory that there is a negative linkage between involvement and evoked set size. Rothschild and Houston (1977) showed that involved consumers tend to have narrower latitudes of acceptance while Belonax and Javalgi

(1989) established that consumers with narrower latitudes of acceptance tend to have smaller evoked sets.

It should be noted however that in all the research studies that found support for a negative involvement/evoked set size relationship, involvement was operationalized in a manner much more consistent with outcome-relevant than value-relevant involvement. Both Rothschild and Houston (1977) and Belonax and Javalgi (1989) measured involvement using the CIM, which measures cognitive responses, not intrinsic interest in the product category. This type of measure equates involvement with the amount of cognitive activity elicited, and thus totally ignores the affective evaluative aspects typically associated with value-relevant involvement (Park and Mittal 1985).

Additionally, it is also worth noting that in one of the most prominent instances where the empirical results supported a positive relationship between involvement and evoked set size, the measure used was much more consistent with value-relevant than outcome-relevant involvement (Gronhaug 1974). Gronhaug measured how interested consumers were in the product category of cars rather than using a more outcome-relevant involving measure such as how important or risky they thought a car purchase would be for them. While this measure is not isomorphic with value-relevant involvement, it comes the closest of any operationalization in the evoked set/involvement literature. Thus it is possible that the

difference in empirical results regarding the involvement/evoked set relationship may be largely a consequence of different types of involvement being addressed in different studies.

As previously stated, the accepted view in the literature is that involvement has a negative effect on evoked set size. As a result, little has been written in the way of theoretical support for a positive involvement/evoked set size relationship. However it is believed that not only can a positive relationship be conceptually justified, but that the explanation is actually more logical and intuitive than those given for a negative relationship. The reasoning behind a positive relationship is that since involved consumers are more concerned about the purchase decision than those who are uninvolved, they would be more motivated to consider a greater number of purchase alternatives. The fact that this logical explanation is inconsistent with the bulk of the empirical research on the involvement/evoked set size relationship could be a result of the conceptual and measurement problems that have afflicted the involvement concept.

Despite the intuitiveness of the reasoning behind a positive relationship, the vast majority of the literature lines up in support of a negative involvement/evoked set size relationship. Three different theoretical frameworks, social judgment theory, information processing theory, and economics of information theory, have all been invoked to provide conceptual justification for this belief. All three hypothesize that involvement indirectly affects evoked set size

by working through the number of attributes considered. They all agree that as involvement increases, a consumer will evaluate brands on more attributes, which then results in fewer brands being considered (Belonax and Mittelstaedt 1978, Hauser and Wernerfelt 1990, Lastovicka and Gardner 1978, Rothschild and Houston 1977). There are two main reasons why highly involved consumers evaluate objects using more attributes: the first is that they have greater motivation to process and think about purchase related information (Chaiken 1980, Johnson and Eagly 1989, Petty and Cacioppo 1986). As a result they tend to have greater product knowledge and thus greater awarness and understanding of the attributes. The second is that their more heightened concern gives them the motivation to evaluate alternatives on more of these attributes (Gensch and Javalgi 1987, Lastovicka and Gardner 1978). The conceptual explanation as to why evaluating more attributes leads to smaller evoked sets is where these three perspectives differ.

The social judgment perspective on the relationship between involvement and evoked sets was first advocated by Jarvis and Wilcox (1973) and later elaborated on by Rothschild and Houston (1977). Social judgment theory was developed by Sherif and Hovland (1961), and its main proposition is that when a person has formed an attitude on an issue, they will only consider credible those messages advocating positions located within some proximity to the position they hold. This range of credible positions surrounding a person's own position on an issue is called the latitudes of acceptance, and

only messages perceived as falling within these latitudes will have any impact on the receiver's attitude. Messages falling outside these latitudes will be rejected and thus will not elicit attitude change. Social judgment hypothesizes involvement to have a negative effect on latitude width. Thus a highly involved person will tend to have very narrow latitudes of acceptance and thus will be difficult to persuade, while the uninvolved will tend to have wide latitudes and thus be open to a much broader range of messages.

In using social judgment theory to explain evoked set formation, Jarvis and Wilcox hypothesized that the high involvement consumer would have narrower latitudes of acceptance and thus would find fewer brands to be acceptable enough to include in their evoked set. Rothschild and Houston (1977) developed a more detailed interpretation based on two propositions: the first hypothesizes that the high involvement consumer will evaluate brands on more attributes than the low involvement consumer, the second hypothesizes that because of their narrower latitudes of acceptance the high involvement consumer is less willing to tolerate substandard performance on any of those attributes considered. Thus since the high involvement consumer evaluates brands using more stringent criteria across a greater number of attributes they are not likely to find many brands acceptable enough to be included in their evoked set.

The information processing explanation of why involvement is negatively related to evoked set size was put forth by Belonax and Mittelstaedt (1978) and is based on the recognition that an individual's ability to process information is limited. As such, restrictions must be placed on the number of brands one considers for purchase and/or the number of attributes one uses to evaluate these brands. Involvement is hypothesized to cause a reduction in evoked set size because it motivates the consumer to use a greater number of attributes to evaluate brands. Since processing capacity is limited, this increase in attributes must be offset by a reduction in the number of brands considered. The high involvement consumer is said to simplify the processing task by reducing the number of brands, not attributes, because doing so reduces the number of comparisons that must be made and eliminating attributes would force consumers to forego consumption goals (Belonax and Mittelstaedt 1978).

The economics of information perspective is based on the work of Stigler (1961) who introduced the concept of search costs to consumer decision making. His basic proposition is that consumers will search for information to assist their decision making only up to the point that its expected benefits offset its costs. An equilibrium point is eventually reached since the marginal utility gained by acquiring additional information decreases while the costs of gathering additional information remain constant. Hauser and Wernerfelt (1990) applied this theory to evoked sets and proposed that the marginal benefit obtained from adding brands to an evoked set

decreases for each subsequent brand included, while the searching costs associated with adding brands remains the same. The final evoked set is formed when there is no net utility to be gained by adding an additional brand.

Involvement is hypothesized to have a negative effect on evoked set size by increasing the evaluation costs associated with adding a brand to an evoked set. Involvement increases these costs by motivating the consumer to evaluate selected brands on more attributes, thereby increasing evaluation costs on a per brand basis. Since the low involvement consumer is evaluating brands on much fewer attributes, the evaluation costs of adding an additional brand to the evoked set is much lower.

To summarize, all three of the theoretical perspectives discussed above agree that as involvement increases, a consumer will evaluate brands on more attributes, which causes fewer brands to be considered. Social judgment says evaluating on more attributes gives consumers more opportunities to exclude brands from consideration; information processing says more attributes require greater processing capacity on a per brand basis, thus limiting the number a consumer is capable of considering, while economics of information says more attributes increase the evaluation cost on a per brand basis thus reducing the number that would be rational to consider.

The main area of difference between these three perspectives is in regard to the nature of the direct effect involvement has on evoked set size, holding constant the number of attributes. According to social judgment theory there is a negative direct effect because high involvement consumers have narrower latitudes of acceptance for each attribute. Thus even if the number of attributes is held constant for both high and low involvement consumers, the high involvement consumer would still tend to have smaller evoked sets, because they are less accepting of brands not possessing the desired rating on each attribute considered.

Both the information processing and economics of information perspectives imply a positive direct effect. In the information processing case, if the number of attributes is held constant for both high and low involvement consumers, then the amount of processing effort required to evaluate a brand in one's evoked set would be the same for people in both groups. Since high involvement consumers are more concerned about making a correct decision they are likely to be willing to devote more processing capacity to evaluating brands and thus employ a bigger evoked set. Similarly according to economics of information if the number of attributes is held constant, then the evaluation cost of adding brands to an evoked set would be the same for both high and low involvement consumers. Since high involvement consumers are more concerned about the consequences of a mispurchase they are likely to place greater value on the benefits resulting from the addition of new brands to their evoked set. Thus,

given equal costs but greater benefits, high involvement consumers would be hypothesized to have bigger evoked sets.

HYPOTHESIZED EFFECTS OF VALUE-RELEVANT INVOLVEMENT ON EVOKED SET SIZE

While a linkage has been established between involvement and evoked set size, it is not particularly clear whether this negative relationship is valid for both types of involvement. As previously discussed, this relationship has been explained from three different theoretical perspectives: social judgment, information processing and economics of information. While involvement was treated in the traditional manner as a single unified construct in all these explanations, the conceptual justification behind them is much more appropriate for outcome-relevant forms of involvement. If involvement were to be conceptualized in a manner more consistent with value-relevant involvement, then the validity of these three perspectives becomes highly suspect.

In the social judgment case, a small evoked set for high involvement consumers is hypothesized because their heightened concern makes them less accepting of alternatives that don't meet all their criteria. However this rationale does not seem as applicable to value-relevant involvement for several reasons. First, value-relevant involvement is associated with a greater general interest in the product category, more extensive product knowledge, and ongoing information search (Bloch and Bruce 1984). This broader base of

knowledge seems to indicate that value-relevant involved consumers would generally have a larger awareness set than those with outcome-relevant forms of involvement. Since value-relevant involved consumers are aware of more brands, then, other things equal, they would likely know more brands acceptable enough to be included in their evoked set.

Second, since those with value-relevant involvement have shopping goals besides the determination of the best purchase alternative, the criteria for inclusion in the evoked set are likely to be less intensely focused on the sufficiency of functional attributes. For people who are value-relevant involved, shopping is also a leisure activity, a way to satisfy curiosity about various brands, a way to acquire more product knowledge, and a way to socially interact with knowledgeable sales personnel (Bloch and Bruce 1984, Tauber 1972). All of these goals can work to encourage such consumers to shop for and evaluate a greater number of alternatives, even those they suspect are likely to be found unacceptable in the final analysis. For example, a car enthusiast may include a sports car in his evoked set that he knows does not offer sufficient room for his family, because of his admiration of its performance characteristics and his desire to test drive it.

Third, value-relevant involved consumers are more concerned about the aesthetic and experiential characteristics of the product (Bloch and Bruce 1984). Since evaluations on these characteristics

are very subjective, personal inspection of brands are often required to determine their acceptability. For example, characteristics such as the handling of a high performance sports car or the sound of a hand crafted piano need to be personally experienced in order to be adequately evaluated. As a result it is more difficult for the value-relevant involved consumer to eliminate alternatives from consideration without a personal inspection than it is for the outcome-relevant involved consumer who can base such decisions on more objective functional criteria. For example the outcome-relevant involved automobile consumer is more likely to automatically eliminate car models from consideration that do not meet their standards on such objective criteria as E.P.A. ratings, horsepower, trunk space, and airbag availability.

The information processing perspective hypothesizes an involved consumer will consider fewer alternatives because they evaluate brands on so many more attributes. This restricts the number of brands they are capable of evaluating due to limits in their processing capacity. However, value-relevant involved consumers have better product knowledge than the outcome-relevant involved (Bloch and Bruce 1984) and thus likely have a more developed schema of the product category. This is reflected by research that has shown product knowledge enhances one's ability to process new information (Johnson and Russo 1984, Punj and Staelin 1983). In addition to being able to process information more efficiently, their greater pre-information search familiarity with brands and salient

attributes frees up processing capacity that can be directed toward the consideration of lesser known brands in the product category. As a result they would be less restricted by information processing limitations than those who are outcome-relevant involved, and thus are better able to handle larger evoked sets.

Finally the economics of information perspective hypothesizes involved consumers consider fewer alternatives because they evaluate brands on more attributes which results in higher evaluation costs thereby reducing the number of brands it is cost effective to consider. However while value-relevant involved consumers are just as likely to incur these high evaluation costs, they are better able to offset them since they are likely to receive greater perceived benefits from the addition of brands to their evoked sets. These benefits result from the intrinsic value consumers receive from shopping for goods with which they have value-relevant involvement. Since shopping for these goods is somewhat of a leisure activity (Bloch and Bruce 1984), the value-relevant involved consumer will be willing to incur higher evaluation costs than those consumers with outcome-relevant involvement only.

To summarize, the conceptual justifications for the negative relationship between evoked set size and involvement provided by the literature do not seem to have much validity for value-relevant involvement. The reason for this is that all of these perspectives ignore the effects of an important factor, how much the consumer

enjoys shopping for the product. The level of enthusiasm the consumer has toward the purchasing task is important not only because it has a direct impact on evoked set size but because the two different types of involvement may affect it in completely opposite ways.

It is hypothesized that value-relevant involvement has a positive relationship with shopping enthusiasm while outcome-relevant involvement is related negatively. The key distinction between the two is that with value-relevant involvement, an act is performed because the individual finds performance of the act to be self gratifying, while with outcome-relevant involvement acts are performed because the individual believes these acts will bring about a rewarding outcome. In the marketing context then, consumers with value-relevant involvement are motivated to shop by a hobby like interest in the product category and thus view the process as something closer to a leisure activity than a task. Since by definition value-relevant involved consumers shop because they enjoy doing so, it stands to reason that value-relevant involvement has a positive relationship with shopping enthusiasm.

With outcome-relevant involvement, shopping is assumed to be a task performed in order to avoid an undesirable purchase outcome. Since shopping effort is seen only as a means to an end, the consumer is unlikely to receive much enjoyment from the activity. While it is fairly clear that outcome-relevant involvement will not

enhance shopping enthusiasm like value-relevant involvement does, it is proposed here that in actuality, it works to reduce the level of shopping enthusiasm a consumer might have. There are two primary reasons for this negative relationship. First, the primary antecedent of outcome-relevant involvement is perceived risk, which motivates consumers to engage in extended shopping effort because they perceive a negative purchase outcome is too costly and/or too probable to allow them to gamble on making an uninformed choice. The greater the perceived risk, the more stressful the purchase task becomes for consumers thereby decreasing their enjoyment of the activity. Second, research has shown that an extrinsic motivational orientation toward an activity will cause a loss of interest in, and enjoyment of that activity (Condry 1977, Lepper, Greene and Nisbett 1973). Since outcome-relevant involvement is an extrinsically oriented motivator of shopping behavior, these findings all give support to the hypothesis that outcome-relevant involvement reduces consumer enthusiasm for the shopping task.

Thus in terms of a causal chain, the two types of involvement are hypothesized to have differential effects on consumer enthusiasm toward the shopping task. Shopping enthusiasm, in turn is hypothesized to have a positive effect on evoked set size. The reasoning behind the latter relationship is that consumers who are enthusiastic about shopping for a particular product will be less motivated to simplify the task by eliminating a lot of brands from their evoked set. Conversely to the extent that consumers find the

purchasing process for a product to be unpleasant, the more motivated they will be to speed up this process by eliminating as many brands as possible from consideration.

Thus although it has been ignored by the involvement literature, shopping enthusiasm is considered an important mediator of the relationship between involvement and evoked set size. A reason for its neglect could be that shopping enthusiasm is a variable that does not fit well into the long dominant information processing paradigm of consumer behavior. This paradigm models the consumer as a rational problem solver who makes decisions based on objective evaluations of the costs and benefits of various alternatives. Recently however, researchers dissatisfied with the limitations of the information processing approach have attempted to expand the boundaries of consumer research by emphasizing the importance of the experiential aspects of consumption (Bloch and Bruce 1984, Hirshman and Holbrook 1982, Holbrook and Hirshman 1982, Unger and Kernan 1983). Instead of focusing on rational problem solving, this experiential approach emphasizes the sensory pleasures and emotional responses the consumer receives from consumption experiences.

In terms of the need to purchase a particular product, the information processing approach is more likely to view the shopping activity as nothing more than a task that must be performed, i.e. simply as the means to an end. The experiential viewpoint however

gives greater consideration to the notion that for some a shopping trip may be an enjoyable self rewarding leisure activity, i.e. an end unto itself. As a result, consideration of the level of enthusiasm toward the shopping activity may help account for some important differences in the ways in which consumers engage in the purchasing process. For example how much a car shopper enjoys (or detests) dealing with car salespeople may have as much impact on how many dealerships that consumer visits than the perceived functional importance of the car purchase. Thus, shopping enthusiasm is a variable that could potentially help bridge the gap between the information processing and experiential approaches by giving researchers a means through which they can account for the effect of some of the experiential aspects of consumption within the context of the traditional information processing model.

It should be noted however that this variable is not meant to be an indicator of how much one enjoys shopping in general but rather is specific to a particular product category. This recognizes that even the most reluctant shoppers probably have at least one product category with which they maintain an ongoing interest and in which they enjoy shopping. For example a sportsman may not enjoy shopping in general, but could still be a very enthusiastic shopper of guns and fishing equipment.

CONCLUSION

It has become widely accepted that involvement has a negative effect on evoked set size. While this appears to be valid for outcome-relevant forms of involvement, the theoretical reasoning used to justify this relationship seems to be inapplicable for value-relevant involvement. Additionally, in terms of empirical support, the one study in which involvement was operationalized in a manner more consistent with value-relevant than outcome-relevant involvement (i.e. as interest in the product category), a positive relationship was found (Gronhaug 1974). Thus it is felt that there is considerable doubt about whether the two types of involvement have the same effect on evoked set size. This is an important issue because if their effects can be shown to be truly different, it would indicate that value-relevant and outcome-relevant involvement are conceptually distinct constructs and not just different variations of the same base construct.

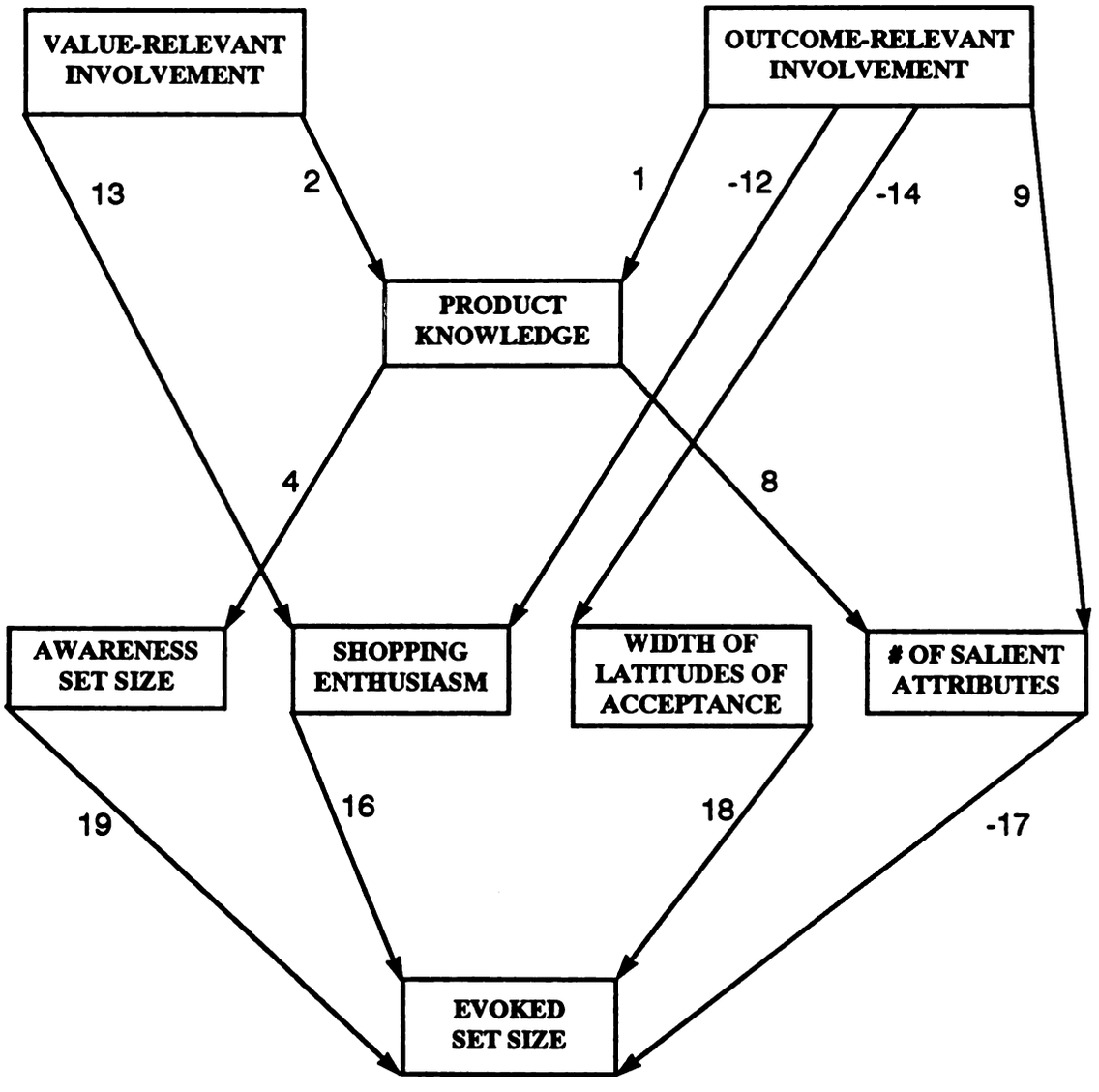
CHAPTER THREE

HYPOTHESES

The hypotheses explicated below are all derived from the conceptual path model represented in Figure 1. This model lays out the hypothesized effects of value-relevant and outcome-relevant involvement on evoked set size, working indirectly through a number of mediating variables. This model of the overall process differs from what is currently accepted in the marketing literature in two main areas: it treats involvement as two separate constructs instead of as a single unified one, and it considers the potential mediating effects that shopping enthusiasm has on the involvement/evoked set size relationship. The numbers next to each path give the number of the hypothesis where the support for these relationships is provided.

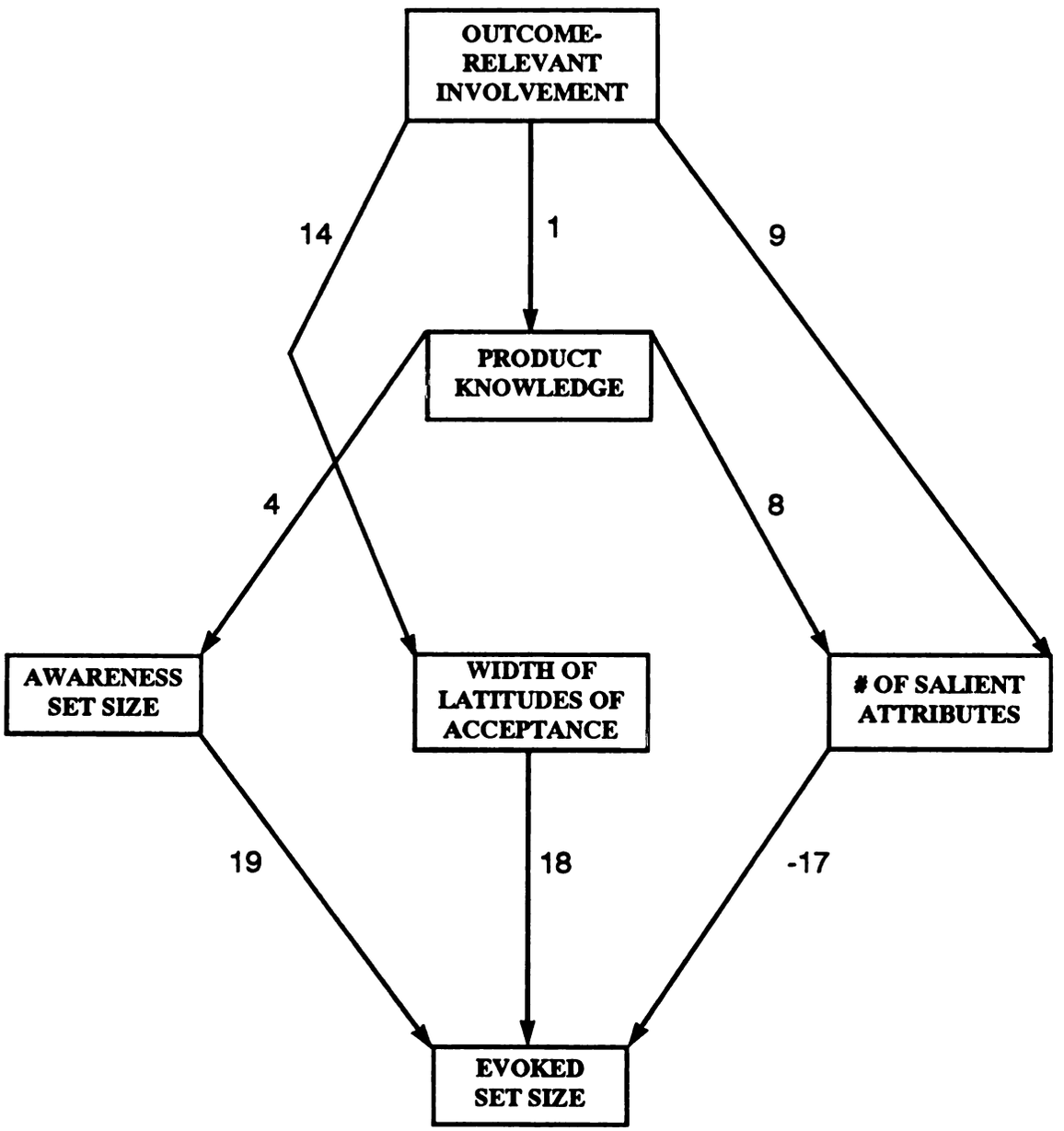
While a path model of the currently accepted view of the effects of involvement on evoked set size has not been presented in the literature, the model in Figure 2 represents a conceptualization of this perspective. This path model is based on the research cited in the literature review and the numbers next to each path give the number of the hypothesis where the support for these relationships is provided.

FIGURE 1
PATH MODEL OF THE EFFECTS OF INVOLVEMENT ON EVOKED SET SIZE:
HYPOTHESIZED RELATIONSHIPS



Number indicates hypothesis; (–) indicates an hypothesized negative relationship.

FIGURE 2
PATH MODEL OF THE EFFECTS OF INVOLVEMENT ON EVOKED SET SIZE:
CURRENT LITERATURE



Number indicates hypothesis; (–) indicates hypothesized negative relationship.

The hypotheses discussed below will be of three types, hypothesized relationships between constructs, hypothesized differences between high and low independent variable groups, and an hypothesized fit of an overall path model relating the constructs to each other.

Hypothesis 1a: Outcome-relevant involvement has a positive effect on product knowledge.

Hypothesis 1b: Subjects with high outcome-relevant involvement have significantly greater product knowledge than subjects with low outcome-relevant involvement

Outcome-relevant involvement has a positive effect on product knowledge, because it provides motivation for more extensive information gathering (e.g., Bettman 1979, Engel, Kollat and Blackwell 1968) processing and purchase relevant thinking (Chaiken 1980, Johnson and Eagly 1989, Petty and Cacioppo 1986). Thus more extensive information processing should result in greater product knowledge than for those who are uninvolved.

Hypothesis 2a: Value-relevant involvement has a positive effect on product knowledge.

Hypothesis 2b: Subjects with high value relevant involvement have significantly greater product knowledge than subjects with low value-relevant involvement

Value-relevant involved consumers are characterized as having a strong hobby-like interest in a particular product category and thus often serve as opinion leaders for purchases in that product category (Bloch 1982). These people maintain an ongoing relationship with their favorite product categories (Houston and Rothschild 1978) and thus keep up with new developments through continuous information search (Richins and Bloch 1986). As such it is hypothesized that value-relevant involvement has a positive effect on product knowledge.

Hypothesis 3: Value-relevant involvement has a stronger relationship with product knowledge than outcome-relevant involvement.

Value-relevant involvement is associated with ongoing interest in the product category, while with outcome-relevant involvement such interest generally only occurs at the time of purchase (Houston and Rothschild 1978). Richins and Bloch (1986) found that information search activities after a purchase (e.g. reading of specialty magazines, acquiring information from interpersonal sources) were stable over time for those with ego (enduring) involvement but decreased in frequency /across time for those with

outcome-relevant involvement. As a result it is inferred that information search under value-relevant involvement is more of a continuous process in which the consumer strives to keep current with new developments in the product category, while with outcome-relevant involvement active search only likely occurs when it is seen as necessary to aid consumer decision making. As a result it is hypothesized that the ongoing search associated with value-relevant involvement will result in more extensive and deeper product knowledge than that resulting from outcome-relevant involvement.

Hypothesis 4a: Product knowledge has a positive effect on awareness set size.

Hypothesis 4b: Subjects with high product knowledge have larger awareness sets than subjects with low product knowledge.

The awareness set is defined as the set brands in a given product category of which the consumer is aware (Narayana and Markin 1975). The awareness set is thus generated from an internal information search (Hawkins, Best and Coney 1992) and hence its size is considered to be a function of the extensiveness of the consumer's product knowledge.

Hypothesis 5a: Outcome-relevant involvement has a positive effect on awareness set size.

Hypothesis 5b: Subjects with high outcome-relevant involvement have significantly larger awareness sets than subjects with low outcome-relevant involvement

Since outcome-relevant involvement is hypothesized to have a positive effect on product knowledge (see Hypothesis 1a), and product knowledge is hypothesized to have a positive effect on awareness set size (see Hypothesis 4a), it is therefore hypothesized that outcome-relevant involvement has an indirect positive effect on awareness set size.

Hypothesis 6a: Value-relevant involvement has a positive effect on awareness set size.

Hypothesis 6b: Subjects with high value relevant involvement have significantly larger awareness sets than subjects with low value-relevant involvement

Since value-relevant involvement is also thought to have a strong positive effect on product knowledge (see Hypothesis 2a), and product knowledge is hypothesized to have a positive effect on awareness set size (see Hypothesis 4a), it is therefore hypothesized

that value-relevant involvement has an indirect positive effect on awareness set size.

Hypothesis 7: Value-relevant involvement has a stronger relationship with awareness set size than outcome-relevant involvement.

Since value-relevant involvement is hypothesized to have a stronger positive effect on product knowledge than outcome-relevant involvement (see Hypothesis 3a), it is therefore hypothesized to have a stronger indirect effect on awareness set size as well.

Hypothesis 8a: Product knowledge has a positive effect on the number of salient attributes used to evaluate brands.

Hypothesis 8b: Subjects with high product knowledge have more salient attributes than subjects with low product knowledge.

Product knowledge leads not only to a greater awareness of the attributes, but also to better understanding of their importance as well (Brucks 1985). As such, consumers with high product knowledge have the ability to evaluate alternatives on more attributes.

Hypothesis 9a: Outcome-relevant involvement has a positive effect on the number of salient attributes.

Hypothesis 9b: Subjects with high outcome-relevant involvement have significantly more salient attributes than subjects with low outcome-relevant involvement

This relationship has received empirical support from a number of researchers (Lastovicka and Gardner 1978, Rothschild and Houston 1978). There are two primary reasons why outcome-relevant involvement is believed to have a positive effect on the number of salient attributes. The first is that outcome-relevant involvement is thought to have an indirect positive effect on the number of salient attributes, working through product knowledge. Outcome-relevant involvement is hypothesized to have a positive effect on product knowledge (see Hypothesis 1a) which is hypothesized too have a positive effect on the number of salient attributes (see Hypothesis 8). Thus because of their product knowledge, high outcome-relevant consumers have the ability to evaluate using more attributes. Second, outcome-relevant involvement is also thought to have a positive direct effect on the number of salient attributes. This is because outcome involved consumers are believed to have a greater concern about the outcome of the purchase (than those low levels of outcome-relevant involvement) and thus would have a greater motivation to evaluate on more of these attributes (Gensch and Javalgi 1987, Lastovicka and

Gardner 1978). The reasoning behind this being that consumers perceive that the more attributes they consider the more thorough their evaluations of alternatives will be and hence the better able they will be to discriminate between acceptable and unacceptable alternatives.

Hypothesis 10a: Value-relevant involvement has a positive effect on the number of salient attributes.

Hypothesis 10b: Subjects with high value-relevant involvement have significantly larger awareness sets than those subjects with low value-relevant involvement

High value-relevant involved consumers evaluate on more attributes those with low value-relevant involvement because they tend to have superior product knowledge (see Hypothesis 2b) and hence are aware of and understand the importance of more attributes (see Hypothesis 8).

Hypothesis 11: Outcome-relevant involvement has a stronger relationship with the number of salient evaluative attributes than value-relevant involvement.

Outcome-relevant involvement is believed to have the stronger relationship with the number of salient evaluative attributes because it provides both the ability (through product knowledge) and the motivation to evaluate on multiple attributes (see Hypotheses 9a and 9b). Evaluating on multiple attributes is seen as a means by which consumers can increase the likelihood they will make a correct purchase decision. Value-relevant involvement however only increases the ability to evaluate on multiple attributes (through product knowledge) but there is no evidence to indicate that it also provides the motivation to do so as well (see Hypotheses 10 a and 10b). Thus outcome-relevant involvement is hypothesized to have a stronger relationship with the number of salient attributes than value-relevant involvement because it provides stronger motivation for using more attributes, so as to produce more thorough product evaluations.

Hypothesis 12a: Outcome-relevant involvement has a negative effect on shopping enthusiasm.

Hypothesis 12b: Subjects with high outcome-relevant involvement have significantly less shopping enthusiasm than subjects with low outcome-relevant involvement

As stated in the literatue review, outcome-relevant involvement is generally caused by concerns about making a

mispurchase and thus consumers with this involvement are motivated to engage in extended shopping effort in order to reduce the likelihood of a negative purchase outcome (Assael 1984, Richins and Bloch 1988). Because of these concerns about the consequences of making a mispurchase, the shopping task is likely to be much more stressful for them than it is for those who do not have such concerns. As a result of this high stress level, outcome-relevant involvement is hypothesized to reduce consumer enthusiasm for the shopping task.

Additionally, with outcome-relevant involvement, interest in the purchasing task is based on concerns about the consequences of the activity and not on an inherent interest in the activity itself. As a result it is considered to be an extrinsically oriented motivator of shopping behavior (Reeve 1992). Since research on motivation has shown that an extrinsic motivational orientation toward an activity will cause a loss of interest in and enjoyment of that activity (Condry 1977, Lepper, Greene and Nisbett 1973), it is believed that outcome-relevant involvement is inversely related to shopping enthusiasm.

Hypothesis 13a: Value-relevant involvement has a positive effect on shopping enthusiasm.

Hypothesis 13b: Subjects with high value-relevant involvement have significantly greater shopping enthusiasm than subjects with low value-relevant involvement

Value-relevant involved consumers are considered to be intrinsically motivated shoppers since their behavior is driven by a hobby like interest in the product category (Bloch 1982) and not by their concerns about the consequences of the purchase. Thus value-relevant involvement is believed to be related positively to shopping enthusiasm since by definition intrinsically motivated individuals engage in such behavior because of the inherent enjoyment they get from performing the activity (Reeve 1992). Additionally there seems to be some logic to the argument that other things equal, consumers will be more enthusiastic shoppers of products they have an intrinsic interest in, than for those they are not interested in.

Hypothesis 14a: Outcome-relevant involvement has a negative effect on the width of the latitudes of acceptance for the evaluative attributes.

Hypothesis 14b: Subjects with high outcome-relevant involvement have narrower latitudes of acceptance than subjects with low outcome-relevant involvement

Latitudes of acceptance will be operationalized in this study by presenting subjects with a seven point rating scale (from below average to above average) for each evaluative attribute, and having them indicate what is the lowest rating on that attribute a brand could

possess and still be considered for purchase. The hypothesized negative relationship has already received empirical support from Houston and Rothschild (1978). Their interpretation of social judgment theory states that as involvement increases, people become more willing to automatically reject purchase alternatives that do not meet or come close to their ideal standards on any attribute they consider salient.

Hypothesis 15: Outcome-relevant involvement has a stronger negative effect on the width of the latitudes of acceptance than value-relevant involvement.

It is not clear whether value-relevant involvement has a positive or negative effect on the width of the latitudes of acceptance. On the one hand the heightened interest in the product category could result in strong commitments to beliefs in the necessity of certain attributes. However it could also be that value-relevant involvement might spawn a broad based appreciation for the merits of various noncompatible attributes. For example the superior product knowledge of the wine connoisseur could lead to an appreciation for a wide variety of different types of vintage wines and not just for those from a certain region and/or of a certain type or color. Given this uncertainty it is believed that at minimum the relationship is not as negative as that between outcome-relevant involvement and latitudes of acceptance and in actuality it could be neutral or positive.

Hypothesis 16a: Shopping enthusiasm has a positive effect on evoked set size.

Hypothesis 16b: Subjects with high shopping enthusiasm have larger evoked set sizes than subjects with low shopping enthusiasm.

According to information processing theory, evoked sets are used by consumers to simplify the purchasing task (Brisoux and Larouche 1981, Parkinson and Reilly 1979). However research in the area of motivation shows that complex activities are more intrinsically rewarding than simple ones, provided they are not beyond the individual's skill level (Berlyne 1960, Reeve 1992). As a result enthusiastic shoppers of the product have less motivation to simplify the purchasing task by eliminating brands from their evoked set. These consumers may actually seek to increase the number of brands considered in order to complicate the shopping task and thus make it more rewarding and last longer. Consumers who do not enjoy shopping for such a product will be more motivated to simplify and thus speed up the process by limiting the number of brands they will consider.

Hypothesis 17a: The number of salient evaluative attributes has a negative effect on evoked set size.

Hypothesis 17b: Subjects with a high number of evaluative attributes have smaller evoked set sizes than subjects with a low number of evaluative attributes.

The number of salient attributes is hypothesized to have a negative effect on evoked set size for three reasons: 1) it increases the number of hurdles a brand must surpass in order to merit inclusion in the evoked set (Rothschild and Houston 1977); 2) Since evaluating on many attributes uses up a lot of processing capacity, it limits the number of brands consumers are capable of including in their evoked sets (Belonax and Mittelstaedt 1978); and 3) it increases the evaluation costs for each brand in the evoked set thereby reducing the number of brands it is cost effective to seriously consider (Hauser and Wernerfelt 1990).

Hypothesis 18a: The widths of the latitudes of acceptance have a positive effect on evoked set size.

Hypothesis 18b: Subjects with wide latitudes of acceptance have larger evoked set sizes than subjects with narrow latitudes of acceptance.

This relationship has been empirically validated by Belonax and Javalgi (1989). The wider one's latitudes of acceptance are, the

more brands will be considered acceptable enough to merit inclusion in the evoked set.

Hypothesis 19a: Awareness set size is positively related to evoked set size.

Hypothesis 19b: Subjects with large awareness sets have larger evoked sets than subjects with small awareness sets.

Awareness set size is the number of brands in a product category a consumer is aware of. The larger the size of ones awareness set, the larger the pool of potential brands one has to select from, the more brands one is likely to find acceptable. This relationship has already been empirically validated by Brown and Wildt (1987).

Hypothesis 20a: Outcome-relevant involvement is negatively related to evoked set size.

Hypothesis 20b: Subjects with high outcome-relevant involvement have significantly smaller evoked sets than subjects with low outcome-relevant involvement.

A negative indirect relationship is hypothesized because outcome-relevant involvement is believed to have large negative

effects on the widths of the latitudes of acceptance (see Hypothesis 14a) and shopping enthusiasm (see Hypothesis 13a) both of which positively effect evoked set size. Additionally it is believed to have a positive effect on the number of salient attributes (see Hypothesis 9a), which negatively effect evoked set size. Thus, even though it might have a slight positive effect on awareness set size (see Hypothesis 5a), the overall effect of outcome-relevant involvement on evoked set size is believed to be strongly negative.

Hypothesis 21a: Value-relevant involvement is positively related to evoked set size.

Hypothesis 21b: Subjects with high value-relevant involvement have significantly larger evoked sets than subjects with low value-relevant outcome-relevant involvement.

A positive indirect relationship is hypothesized because value-relevant involvement is believed to have positive effects on shopping enthusiasm (see Hypothesis 13a) and awareness set size (see Hypothesis 6a), both of which positively affect evoked set size. Thus, while it is believed to have a slight positive effect on the number of salient attributes (see Hypothesis 10a), which negatively affects evoked set size, overall its effect on evoked set size is thought to be positive.

Hypothesis 22: The hypothesized path model explicated in Figure 1, will provide a better fit to the data than the path model derived from the current literature (Figure 2).

The new model will provide a better fit because it separates out the differential effects of outcome-relevant and value relevant involvement on evoked set size (see Hypotheses 20a and 21a) and includes the mediating effects of shopping enthusiasm on the involvement/evoked set size relationship (see Hypotheses 12a, 13a, and 16a) .

CHAPTER FOUR

METHOD

OVERVIEW

The methodological goal of this study was to set up an experimental procedure that allowed statistical tests to be made of both the hypothesized relationships between individual constructs as well as assessments of the fits of the overall path models (see figures 1 and 2). In order to perform these tests, a regression/correlational approach was undertaken. The subjects were placed in an experimentally created situation and asked to perform a product evaluation task. In the course of this task, quantitative measures were taken of each of the constructs in Figure 1. The individual relationships between constructs were tested through simple correlational analysis and means tests while the fits of the overall models were assessed through path analysis.

SUBJECTS

The subjects for this study were 182 undergraduate students in upper division marketing and management classes. All questionnaires were administered to students during regular class time. Students in these classes were offered an incentive in exchange for their participation in this research. This incentive was the opportunity to participate in a drawing for gift certificates and/or cash prizes. Additionally some instructors provided additional incentives by either

mandating participation or offering extra credit for doing so. All subjects were told this research was part of a market survey on the buying intentions of college students, and were thus encouraged to respond as realistically as possible to the experimental buying situation.

EXPERIMENTAL DESIGN

Because there was a concern about a potential lack of variation on one of the exogenous variables, outcome-relevant involvement, a manipulation was used in order to introduce additional variation on this variable into the experiment. High and low conditions of outcome-relevant involvement were established by creating two differently worded sets of instructions for the questionnaires distributed to the subjects. Assignment of subjects to the two treatment conditions was done on a class by class basis, by randomly assigning each class to one of the two conditions. The reason the other exogenous variable, value-relevant involvement, was not also treated as a factor was that it is an individual difference variable and hence cannot be manipulated (Houston and Rothschild 1977).

In order to guard against the disproportionate allocation of value-relevant involved subjects to one of the two outcome-relevant involvement treatment conditions, the mean value-relevant involvement scores of each class were continually monitored. In the end, the mean value-relevant involvement scores for subjects in the high and low outcome-relevant involvement conditions were 76.33

and 75.25 respectively. A t-test on the difference between the two groups yielded a t-value of .36, and a p-value of .717, thus indicating no significant difference. As a result, there is no evidence that value-relevant involved subjects were disproportionately allocated to the two experimental conditions.

PRODUCT SELECTION

Since value-relevant involvement cannot be manipulated (Rothschild and Houston 1977), it was considered critical that a product category be used in which the level of value-relevant involvement varied naturally and widely across subjects. If such a product category was not selected, then there might have been a failure to introduce a sufficient amount of variation on this factor into the study. Since the majority of consumers have a low level of value-relevant involvement with most products (Bloch 1981) the category selected for this study needed to be one with a demonstrated ability to elicit high levels of value-relevant involvement from a sizable segment of the market.

The product category chosen for this study was car stereos. This category was selected because it is known to have a well established-in constituency of high value-relevant involvement consumers, namely audiophiles. Evidence of the ability of car stereo equipment to elicit high value-relevant involvement is provided by the proliferation of specialty magazines such as Stereo Review, High Fidelity, and Audio magazine, which provide detailed and complex

information on the latest developments in stereo equipment to those with an enduring interest in the product category. In addition, this product category elicited the highest level of interest from a convenience sample of college students, who were asked to rate their level of interest in seven product categories (stereo receivers, walkmans, cameras, VCRs, bicycles, and computers).

TEST PROCEDURE

Pretest Questionnaire

Research questionnaires were administered to all the participating students in a particular class during the last 30 minutes of the class period. The questionnaire was divided into three separate parts; the pretest, the evaluation task and the post-test. The pretest was administered first without any verbal explanation of the purpose of the research. The pretest featured a series of questions that measured awareness set size, value-relevant involvement, car stereo product knowledge, and the subjective likelihood that they will purchase a car stereo within the next three years. A copy of the complete pretest form appears in Appendix 2a.

Outcome-Relevant Involvement Manipulation

Once all the subjects had finished the pretest, the forms were collected and the evaluation task questionnaire was distributed. Subjects were then read a series of instructions explaining the purpose of the research and what procedures they should follow in order to complete the evaluation task. In order to create the high and low

outcome-relevant involvement conditions, two differently worded sets of instructions were used.

The instructions were written so as to heighten outcome-relevant involvement in one condition, but not in the other. According to Sherrell and Shimp (1982), one of the most accepted means of manipulating involvement in an experimental situation is to personalize the evaluation task to subjects in the high involvement condition but not to personalize it to those in the low involvement group. This is seen as an appropriate manipulation procedure since involvement is generally defined as the personal relevance of a situation (Johnson and Eagly 1989, 1990, Petty and Cacioppo 1990). This approach has previously been used by involvement researchers such as Apsler and Sears (1968), and Petty and Cacioppo (1979) among others. According to Sherrell and Shimp (1982) the evaluation task can be made personally relevant by communicating to subjects that their performance of the task will be instrumental in helping them achieve some goal, avoid some sanction, or that their input is important and will have major implications for someone else. All of these manipulations have the underlying goal of convincing subjects in the high involvement condition that they should engage in extensive cognitive activity when performing the evaluation task.

For this study the evaluation task was made more personally relevant to the subjects in the high outcome-relevant involvement condition by exposing these subjects to two involvement inducing

manipulation procedures suggested by Sherrell and Shimp (1982). In the first, performance of the evaluation task was made more instrumental by linking it to the incentive drawing. This was done by informing these subjects that the prizes offered in the drawings were gift certificates for the purchase of a car stereo at a local car stereo specialty store. They were told in the instructions that the group of car stereos they were to evaluate represented the entire selection of models carried by this store, and thus if they did win the drawing, they would only be able to redeem their prize by selecting one of these brands for purchase. This was intended to give these subjects practical motivation for realistically evaluating the car stereo brands since they may have wanted to use these evaluations as the basis for selecting a car stereo in the event they did win the drawing. Additionally, the instructions explicitly asked subjects in this treatment condition to assume they had won one of these gift certificates when performing the evaluation task, in order to give them a context in which it would be realistic for them to purchase a stereo.

In addition to this first procedure, involvement was also heightened for subjects in the high outcome relevant condition by communicating to these subjects that their responses were considered very important and would have a significant impact on the purchasing and inventory decisions of the car stereo specialty store. Subjects were told that the store was vitally interested in their perceptions of the attractiveness of different car stereo models and would be using

these results to decide which models they would carry. It was stressed to subjects that the only way the store could obtain accurate information was for subjects to treat the simulated purchase situation as realistically as possible, and to give responses that reflected the decisions they would have made if they were actually shopping for a car stereo.

Subjects in the low outcome-relevant involvement group were not exposed to any of these involvement inducing manipulations. These subjects were simply informed that the incentive drawing was for cash prizes and thus no attempt was made to link the evaluation task to the incentive drawing. In addition, no mention was made of the importance of the research. They were simply asked to indicate what purchase decisions they would make if they had the motivation and the resources necessary to buy the product now. This treatment condition was designed to make the purchase situation less involving than the other condition since the purchase context would only be relevant to those who actually did have the motivation and the resources necessary to make a car stereo purchase. The wordings for both sets of instructions appear in Appendices A and B.

Product Evaluation Task Questionnaire

After the instructions were given, the subjects were given a questionnaire and a supplementary booklet giving them information they could use to help them perform the product evaluation task. This booklet contained two types of information: descriptions of

important car stereo attributes and product profiles showing how each of the car stereos they were to consider rated on each of the attributes. The questionnaire first asked subjects to indicate which evaluative attributes they would use to evaluate car stereos. Next they were then asked to indicate their latitudes of acceptance for each of the attributes they selected. The next two series of questions sought to measure the amount of outcome-relevant involvement and shopping enthusiasm subjects had regarding the purchase of a car stereo.

Next, the subjects were asked to select their evoked set by looking over the product profiles of the different car stereo brands and indicating which of the various models presented they would consider for purchase. Finally the subjects were asked to indicate what strategy they used to process the product related information and formulate their evoked sets. The supplementary information booklet and the evaluation task forms appear in Appendices C and D.

Post-test

Upon completion of the evaluation task, subjects were asked to turn in their questionnaire, pick up the post-test form, and then answer a short series of questions designed to assess the amount of product knowledge they had regarding car stereos, and a group of self report manipulation check items designed to assess the amount of outcome relevant involvement elicited by the treatment conditions. When finished with the post-test, subjects handed in their

questionnaire and were then given an entry blank to fill out for the incentive drawing. A copy of the complete posttest form appears in Appendix F.

MEASUREMENT OF CONSTRUCTS

Value-Relevant Involvement

According to Bloch (1981) value-relevant (product) involvement is conceptualized as the amount of interest, arousal or emotional attachment a product elicits from a person. To measure this construct, Zaichkowski's (1988) revised personal involvement inventory (RPII) was used (see Appendix C, items 29-38). This scale was designed to provide a context free measure of a person's involvement with any of three different psychological objects: products, advertisements, and purchase decisions. To measure value-relevant involvement this scale was used to assess involvement with the product itself and not with the purchase decision.

In addition to the RPII, items from other involvement scales in the literature were used in order to improve measurement reliability. These include six items from Lastovicka and Gardner's (1978) involvement scale that relate to interest and emotional attachment to the product and nine items from Bloch's (1981) product involvement scale (see Appendix C, items 39-55). Since the Bloch scale was developed to measure involvement with the product category of cars, the items borrowed were modified to assess involvement with the car stereos.

Outcome-Relevant Involvement

Outcome-relevant involvement is conceptualized to be the amount of concern an individual has about the consequences of a purchase decision. To assess this construct, Jacoby and Kaplan's (1972) perceived risk scale (Appendix E, items 37-45) and 10 items from Slama and Tashchian's (1985) 33 item purchasing involvement scale were used (Appendix E, items 46-55). The entire scale was not used since much of it pertains to measuring an individual's involvement with purchasing activities in general rather than involvement of a specific purchase. The items that were selected were ones that could be adapted to measuring involvement with the specific task of purchasing a car stereo. For example Slama and Tashchian's (1985) item "On most purchase decisions the choice I make is of little consequence (p.79)," has been changed to, "In regards to the purchase decision of which car stereo to buy, the choice I make is of little consequence."

In addition several subjective-state items were also used to assess how important subjects thought the evaluation task was and how much cognitive activity they devoted to this task (Appendix F, items 42-45). The main purpose of these items was to check the effectiveness of the outcome-relevant involvement manipulations.

Awareness Set Size

Awareness set size was defined as those brands in a product category with which a person has some degree of familiarity.

Awareness set size was measured by presenting subjects with a list of actual and fictitious stereo manufacturers and having them self report their degree of familiarity with the brand name on a three point scale. The three categories were unfamiliar, somewhat familiar, and definitely familiar. A trichotomous measure was used instead of a dichotomous familiar-unfamiliar format, because the two familiar categories allowed more information to be obtained about the degree of a subject's familiarity. Only one unfamiliar category was used since logically there are no degrees of unfamiliarity. Fictitious manufacturers were included as a way to account for false self reports of awareness (see Appendix C, items 1-28).

For the analysis discussed in this paper, awareness set size was measured by assigning subjects two points for being definitely familiar, one point for being somewhat familiar, and no points for being unfamiliar with actual manufacturers. For fictitious manufacturers the scoring was -1 points for definitely familiar, no points for somewhat familiar, and two points for unfamiliar.

Number Of Salient Evaluative Attributes

Evaluative attributes are defined as those attributes a person considers when evaluating products for purchase. The number of evaluative attributes was measured by presenting subjects with a list of attributes and having them indicate which ones they would use to

evaluate the adequacy of different brands of stereos (see Appendix E, items 1-16). These attributes were derived from product reviews in the 1992 Crutchfield Catalog (Crutchfield Corporation 1992).

Latitudes Of Acceptance

The latitudes of acceptance are defined as the range of acceptable positions or levels of an attribute a person will consider acceptable when evaluating products for purchase. The measurement procedures used to assess latitudes of acceptance were different for the two different types of attributes used in this study. The first type of attribute is a performance rating. This is a one (above average) to seven (below average) rating that indicates how well a car stereo performs on an audio specification in comparison to other models on the market. Latitudes of acceptance were assessed for this type of attribute by having subjects indicate what was the lowest rating a model of car stereo could have on each of these attributes, without automatically being rejected from consideration for purchase (see Appendix E, items 28-36).

The other type of attribute is a product feature. This is a car stereo feature that is either present or absent from a particular model. Latitudes of acceptance were assessed for this type of attribute by having subjects indicate on a seven point scale how important it was to them that a model of car stereo possess or not possess the feature (see Appendix E, items 17-27). To the extent that a feature is either required (or forbidden) the narrower the latitudes were. To the extent

that feature is not required (or forbidden) the wider the latitudes will be.

Evoked Set Size

Evoked sets are the brands or models in a product category that a person will consider for purchase. This was measured by having the subjects indicate from the list of brands which ones they would seriously consider for purchase (see Appendix E, part 4 items 1-28).

Shopping Enthusiasm

Shopping enthusiasm is defined as the anticipated enjoyment an individual feels with respect to a specific shopping task. Since this is a new construct there were no existing instruments in the marketing literature to measure this trait. As a result, scales were borrowed from the leisure discipline and then adapted to a consumption context. Leisure scales were used because the measurement goal was to assess the level of affect one has for a particular activity, and this is the type of measurement task that is commonly performed in leisure research. The first scale was adapted from Unger and Dornoff (1979) and is a 10 point scale that asks subjects to rate their preference for shopping for stereos in comparison to all other products. The second scale was adapted from Iso-Ahola (1979) and asked subjects to assess to what extent they feel shopping for a stereo would be a leisure activity.

The final leisure scale consisted of seven items adapted from Unger and Kernan (1983). The full scale features 26 items and seeks to assess the amount of subjective leisure one gets out of an activity. All the items give a statement and ask subjects to indicate whether they agree or disagree using a five point Likert format.

In addition to the scales borrowed from the leisure literature, five additional seven point agree-disagree Likert items were developed to directly assess shopping enthusiasm. See Appendix E, part 3, items 56-69, for all of the shopping enthusiasm items.

Product Knowledge

Product knowledge was assessed three different ways in the study. First objective product knowledge was measured in the pretest before subjects had performed all of their decision making tasks (see Appendix C, items 56-65). This was designed to assess the amount of internal or pre-existing product knowledge a subject brought with them into the experiment. In addition, objective product knowledge was also measured in the post-test as well, using the same nine pretest questions plus two additional items (see Appendix F, items 30-41). Measuring product knowledge after the decision making task was performed allowed for the assessment of product knowledge that subjects acquired in the course of performing their product evaluations. In both cases objective product knowledge was assessed by asking subjects questions about what certain car stereo attributes were and what their significance was.

The third means by which product knowledge was measured was through the administration of a two item subjective product knowledge scale during the pretest (see Appendix C, items 66-67). This scale was designed to assess how much a person thought they knew about car stereos. A measure of subjective product knowledge was taken for two reasons: first, subjective knowledge has been recognized as being distinct from objective knowledge because it indicates self confidence levels as well as knowledge levels (Brucks 1985). As a result it was felt that a more complete assessment could be provided by measuring both subjective and objective knowledge. Second the subjective scale provided a backup measure for product knowledge in case the objective measures were plagued by a lack of reliability.

CHAPTER FIVE

DATA ANALYSIS AND FINDINGS

INTRODUCTION

The preceding chapter discussed the experimental design and data collection procedures. This chapter presents the analysis of the data. This discussion will be divided into two main sections; the first will present the reliability analysis used to develop final measures for each variable in the study. The second will present the results of the statistical analyses performed in order to test the hypotheses outlined in Chapter 3.

RELIABILITY ANALYSIS

Development of Final Measures

As discussed in the previous chapter, each variable in the study was measured using at least one multi-item scale. Multiple indicators were used in order to help insure that reliable measures could be obtained for each variable. In order to determine which combination of items provides the most reliable measure for each variable, item analysis was performed. The goal of item analysis is to produce final measures that are more reliable by eliminating from the measurement scales those items identified as being weak or ambiguous.

The reliability of the overall measurement scales were assessed with measures of internal consistency. Cronbach's alpha was calculated for all of the scales except for product knowledge, evoked set size and number of salient attributes. KR20 was calculated for these three scales since they were composed of dichotomous rather than multichotomous scale items (Nunnally 1978). Internal consistency was used to assess reliability because Nunnally (1978) states that it provides the best estimate when "the major source of measurement error is because of the sampling of content" (p.230). Since each scale is composed of only a limited sampling of items from the domain of all items that potentially might have been used, it is felt that the sampling error associated with the selection of scale items represented the greatest source of measurement error. Internal consistency was considered appropriate even for the evaluation task variables (product knowledge, lattitudes of acceptance, awareness set size and evoked set size) because each of these scales was designed to capture the latent decision making characteristic underlying these variables (such as familiarity with a product category or stringency in requirements) and thus none were considered to be multi-dimensional.

Judgments as to the reliability of individual scale items were based upon two criteria: the size of the corrected item-to-total correlation and the direction of the change in alpha if the item were deleted from the scale. The corrected item-to-total correlation is the correlation between a scale item and the sum of the raw score for the other items in the scale. This is used as an indicator of how much an

item correlates with the other items in the scale. The alpha if the item is deleted indicates what the Cronbach's alpha (KR20) is for the other items in the scale. By comparing this to the alpha (KR20) for the overall scale it can be determined whether the alpha of the scale will be increased or decreased if the item is eliminated. This is used as an indicator of the relative contribution a particular item makes to the overall internal consistency of the scale.

These two criteria were used to purify the measurement scales by eliminating items that had both low item-to-total correlations (below .30) and whose deletion led to an improvement in the alpha (KR20) of the scale. These eliminations were made in a stepwise manner, such that the most unreliable item that met the two criteria was eliminated first and then the reliability analysis was recomputed. The process was repeated until no other scale items met the criteria for elimination. Results of the item analyses for each of the eight variables in the study are presented in Table 5.1.

Value-Relevant Involvement

Two scales were used to measure value-relevant involvement: the 10 item Revised Personal Involvement Inventory (Zaichkowsky 1988), and a combination of 17 items taken from scales developed by Bloch (1981) and Lastovicka and Gardner (1978). Separate item analyses of the two scales were performed with the RPII yielding a Cronbach's alpha of .9059, and the Bloch-Lastovicka generating an alpha of .8896. When the two scales were combined the alpha was

TABLE 5.1
ITEM ANALYSIS OF FINAL SCALES

1. VALUE-RELEVANT INVOLVEMENT

SCALE-ITEM	CORRECTED ITEM-TO-TOTAL CORRELATION	ALPHA IF ITEM DELETED
RPII-1	.7140	.9341
RPII-2	.7672	.9332
RPII-3	.6429	.9356
RPII-4	.6499	.9353
RPII-5	.6890	.9346
RPII-6	.6926	.9346
RPII-7	.6953	.9345
RPII-8	.6243	.9356
RPII-9	.6863	.9346
RPII-1O	.4605	.9386
BL-1	.6835	.9348
BL-2	.6874	.9351
BL-4	.6432	.9355
BL-5	.5904	.9361
BL-6	.5755	.9363
BL-7	.4681	.9378
BL-8	.5256	.9370
BL-10	.5472	.9368
BL-12	.5831	.9362
BL-14	.6294	.9357
BL-15	.5400	.9368
BL-16	.5028	.9373
BL-17	.6263	.9359

Cronbach's α = .9384

SCALES: RPII - Revised Personal Involvement Inventory, Zaichkowsky 1988

BL - Bloch 1981(BL-1 to BL-6), Lastovicka and Gardner 1978 (BL-7 to BL-17)

TABLE 5.1
ITEM ANALYSIS OF FINAL SCALES (CONTINUED)

2. OUTCOME-RELEVANT INVOLVEMENT

SCALE-ITEM	CORRECTED ITEM-TO-TOTAL CORRELATION	ALPHA IF ITEM DELETED
ST-1	.3158	.7570
ST-2	.6267	.7057
ST-3	.6037	.7126
ST-3	.4447	.7376
ST-5	.4208	.7426
ST-6	.2972	.7580
ST-7	.4342	.7393
ST-8	.2971	.7584
ST-9	.5295	.7249

Cronbach's $\alpha = .7604$
SCALE: ST - Slama and Tashchian (1985)

3. SALIENT ATTRIBUTES

ATTRIBUTE	CORRECTED ITEM-TO-TOTAL CORRELATION	KR20 IF ITEM DELETED
POWER	.2347	.7301
FM SENSITIVITY	.2805	.7256
FM SEPARATION	.2770	.7280
FM QUIETING	.3623	.7157
T. FREQ. RESPONSE	.5414	.6919
T. WOW & FLUTTER	.4811	.6969
T. SIGNAL/ NOISE	.4880	.6965
SEP. BASS & TREBLE	.3040	.7228
CD CHANGER	.2780	.7292
BIAS CONTROL	.4282	.7071
DOLBY N. R.	.4932	.6966

KR20 = .7326

TABLE 5.1
ITEM ANALYSIS OF FINAL SCALES (CONTINUED)

4. SHOPPING ENTHUSIASM

SCALE-ITEM	CORRECTED ITEM-TO-TOTAL CORRELATION	ALPHA IF ITEM DELETED
CL-1	.7805	.8924
CL-2	.7193	.8977
SL-1	.7299	.8946
SL-2	.7434	.8932
SL-3	.5952	.9006
SL-4	.5805	.9016
SL-5	.4205	.9082
SL-6	.6516	.8981
SL-8	.8208	.8890
SL-9	.4483	.9072
SL-10	.8259	.8900

Cronbach's α = .9063
SCALES: CL - Comparative Leisure: Unger and Dornoff 1986, Iso-Ahola 1979 (CLS2)
SL - Subjective Leisure: Unger and Kernan 1983

TABLE 5.1
ITEM ANALYSIS OF FINAL SCALES (CONTINUED)

5. PRODUCT KNOWLEDGE

SCALE-ITEM	CORRECTED ITEM-TO-TOTAL CORRELATION	KR20 IF ITEM DELETED
PRE-1	.2964	.7053
PRE-2	.2607	.7078
PRE-3	.1685	.7139
PRE-4	.2450	.7088
PRE-6	.2273	.7101
PRE-7	.3736	.7003
PRE-8	.2505	.7107
PRE-9	.2398	.7098
PRE-10	.1960	.7125
SUB-1	.5841	.6703
SUB-2	.5237	.6853
POST-1	.1929	.7123
POST-2	.2819	.7064
POST-3	.2538	.7082
POST-4	.2507	.7087
POST-5	.1501	.7148
POST-6	.2087	.7125
POST-7	.4121	.6991
POST-8	.2746	.7068
POST-9	.2734	.7088
POST-10	.3009	.7057
POST-11	.1353	.7051
POST-12	.1793	.7136

KR20 = .7164
SCALES: PRE - Pretest
SUB - Subjective Evaluation
POST - Post-test

TABLE 5.1
ITEM ANALYSIS OF FINAL SCALES (CONTINUED)

6. AWARENESS SET

MANUFACTURER	CORRECTED ITEM-TO-TOTAL CORRELATION	ALPHA IF ITEM DELETED
CLARION	.6426	.8792
JVC	.6517	.8791
BLAUPLNUKT	.4241	.8870
KENWOOD	.5509	.8834
PIONEER	.5424	.8854
SANYO	.5100	.8841
SHERWOOD	.4312	.8873
SONY	.4644	.8865
ALPINE	.5665	.8822
JENSEN	.6560	.8785
PANASONIC	.3683	.8882
AUDIOVOX	.6209	.8800
CRAIG	.6052	.8806
KRACO	.6465	.8790
AIWA	.5173	.8841
DENON	.5155	.8846
TARGA	.4457	.8861
NAKAMICHI	.3902	.8883

Cronbach's $\alpha = .8894$

TABLE 5.1
ITEM ANALYSIS OF FINAL SCALES (CONTINUED)

7. LATTITUDES OF ACCEPTANCE

ATTRIBUTE	CORRECTED ITEM-TO-TOTAL CORRELATION	ALPHA IF ITEM DELETED
POWER	.3808	.8030
T. FREQ. RESPONSE	.6307	.7841
FM SENSITIVITY	.5123	.7933
FM SEPARATION	.5183	.7928
FM QUIETING	.6201	.7851
T. WOW & FLUTTER	.4865	.7959
T. SIGNAL/NOISE	.4623	.7980
ANTI-THEFT	.3260	.8056
CD CHANGER	.2847	.8076
T. MUSIC SEARCH	.3353	.8052
RADIO/TAPE SWITCH	.2825	.8076
BIAS CONTROL	.3652	.8037
POWER OFF EJECT	.2598	.8091
DOLBY N.R.	.3850	.8025
SECURITY CODE	.2949	.8071
REMOVABLE CHASSIS	.3236	.8057
DETACHABLE FACE	.2764	.8079

Cronbach's $\alpha = .8107$

TABLE 5.1
ITEM ANALYSIS OF FINAL SCALES (CONTINUED)

8. EVOKED SET

CAR STEREO MODEL	CORRECTED ITEM-TO-TOTAL CORRELATION	ALPHA IF ITEM DELETED
PIONEER KEHM5500	.4632	.8769
KENWOOD KRC540	.3853	.8809
SONY XRU220	.4133	.8798
CLARION 3670RC	.3190	.8850
PIONEER KEHM7200	.6217	.8692
JVC KSRG8	.5474	.8729
NAKAMICHI TD3PP1	.5052	.8751
KENWOOD KRC740	.6982	.8647
TARGA Q7000	.4502	.8777
SONY XRU550	.7466	.8617
PIONEER KEHM8200	.6995	.8645
SONY XRU770	.7581	.8610
KENWOOD KRC940	.7163	.8635

KR20 = .8807

raised to .9357. Thus it was decided to utilize a combined scale. This combined scale was then purified by eliminating four items (all from the Bloch-Lastovicka scale). This purified value-relevant involvement scale features a Cronbach's alpha of .9384, and item-to-total correlations that range from .4605-.7672.

Outcome Relevant Involvement

Two scales were used to measure outcome-relevant involvement: Jacoby and Kaplan's 9 item perceived risk scale, and 10 items adapted from a scale used by Slama and Tashchian (1985). Since four pairs of the perceived risk questions were multiplied together (probability times cost for the four different types of risk), the perceived risk scale is mathematically reduced to five items for reliability purposes. Separate item analyses of the two scales were performed with the perceived risk scale generating an alpha of .387, and the Slama-Tashchian scale obtaining a reliability of .6555. A combination of the two scales produced an alpha of only .426. As a result it was decided that using the Slama-Tashchian scale alone provided the most reliable means of measuring outcome-relevant involvement. The reliability of this scale was then further increased by eliminating an item with a negative item-to-total correlation. This final purified measure of outcome-relevant involvement features an alpha of .7604, and item-to-total correlations ranging from .2972 to .6276.

Although outcome-relevant involvement was the variable that was manipulated in this study, no significant differences were found between the two treatment groups in terms of their mean scores on the final purified measure of outcome relevant involvement ($p=.25$). Additionally no significant differences were found between the two experimental groups on either of the two manipulation check questions. However while it is apparent that the manipulations were not effective, it should be noted that their purpose was to introduce variation in outcome-relevant involvement into the experiment. An examination of respondent scores on this variable indicate that despite the ineffectiveness of the manipulations, an adequate amount of variation was obtained. This is evidenced by the fact that the standard deviation for outcome-relevant involvement was 4.6 with total raw scores on the final nine item outcome-relevant involvement scale ranging from 9 to 33.

Thus, while sufficient variation in outcome-relevant involvement was obtained, it is was possible, given the ineffectiveness of the manipulation, that the variation in this variable was not conceptually distinct from that found in value-relevant involvement. In order to test whether there was discriminant validity between the measures of the two types of involvement, two confirmatory factor analyses were run on the items in both scales. The first C.F.A. tested a one factor model in which all the items from both scales were combined into a single involvement factor. The one factor (involvement) model produced a χ^2 of 1654.27 at 560 degrees of

freedom (p. < 01). The second confirmatory factor analysis tested the two factor model in which scale items were constrained a priori as belonging to either outcome or value relevant involvement. The two factor solution produced a χ^2 of 1470.38 at 559 degrees of freedom (p < .01). The difference in χ^2 values between the one and two factor models is 183.89 at 1 degree of freedom, which is significant at the .01 level. Additionally, a 95% confidence interval was constructed around ϕ. Unity was not conatined in this interval (ϕ = .525, standard error = .064), thus providing further evidence that there is discriminant validity between the outcome-relevant and value-relevant involvement scales.

Number of Salient Attributes

The number of salient attributes was measured by asking subjects to indicate whether or not they would use a particular attribute to evaluate car stereos. The original scale asked them to make this judgment in regard to 16 different attributes, and the score for this variable was obtained by summing up for each subject the number of attributes they indicated that they would use. The KR20 for the original scale was .6744. After 5 items were eliminated in the item analysis, the KR20 for the scale was increased to .7326. The item-to-total correlations for the purified measure range from .2347 to .5414.

Product Knowledge

Product knowledge was assessed with three different scales: a 10 question pretest of objective knowledge, a two item assessment of subjective knowledge, and a 12 question post-test of objective knowledge. The pretest was designed to measure preexisting knowledge, the post-test was designed to capture both preexisting knowledge and knowledge acquired during the experimental task, and the subjective scale was designed to assess how much a subject thought they knew about the product category. The pretest scale had an KR20 of .3591 (.5935 if one unreliable question is removed), the two item subjective scale had an KR20 of 1.0, and the post-test had an KR20 of .5303 (.6020 if one unreliable question is removed). When the three scales were combined the KR20 increased to .7145. Thus it was decided to use a combined scale to measure product knowledge. The removal of one unreliable item increased the KR20 of the final measure to .7164, with the item to total correlations ranging from .1353 to .5841.

Awareness Set Size

Awareness set size was assessed by asking subjects to rate their degree of familiarity (definitely familiar, somewhat familiar, unfamiliar) with 20 real and 7 fictitious manufacturers of car stereo. The reliability analysis for the entire 27 item scale yielded an alpha .8728. Item analysis led to the elimination of eight items, including all seven fictitious manufacturers. The final purified measure for

awareness set size features a Cronbach's alpha of .8894, with item-to-total correlations ranging from .3683 to .6465.

Shopping Enthusiasm

Shopping enthusiasm was measured with a scale consisting of 9 items adapted from research in the leisure literature (Unger and Dornoff 1979, Iso-Ahola 1979, Unger and Kernan 1983) and 5 items that were newly created. The complete 14 item scale yielded an alpha of .8861. After the elimination of two unreliable items, the final measurement scale produced an alpha of .9101, with item-to-total correlations ranging from .5588 to .8224.

Lattitudes of Acceptance

Lattitudes of acceptance were assessed using two scales: one measuring the minimum level of performance one was willing to tolerate on nine different performance specifications, the other measuring how necessary it was that the car stereo have or not have 11 different product features. Since conceptually it is believed that both feature and performance requirements are equally valid aspects of the lattitudes of acceptance, a combined scale was used. The overall combined scale had an alpha of .7623. After the measure was purified by eliminating three unreliable scale items, the alpha increased to .8107. The item-to-total correlations for the final measure range from .2598 to .6341.

Evoked Set Size

Evoked set size was measured by asking subjects to indicate whether or not they would seriously consider for purchase a particular model of car stereo. The original scale asked them to make this judgment in regard to 28 different models of car stereo, and the score for this variable was obtained by summing up for each subject the number of models they indicated that they would consider. The KR20 for the original scale was .8319. After 15 items were eliminated in the item analysis, the KR20 for the scale was increased to .8807. The item-to-total correlations for the purified measure range from .3190 to .7466.

Summary

The reliability coefficients that were computed for the final scales used to measure the eight variables in the study range from .7164 to .9384. Since these all greatly exceed Nunnally's (1967) criterion for acceptable internal consistency of .50 to .60, the variables are considered acceptable for further analysis

TESTS OF THE HYPOTHESES OF THE STUDY

The results of the tests of the research hypotheses outlined in Chapter 3 are presented below. For t-tests, the high and low groups were created by using median splits. Subjects with scores above the median were put in the high group, subjects with below median scores were put in the low group. Subjects with the median score were put in the group that best equalized the size of the two groups.

The median was used as the dividing point for the two groups instead of the mean because it better allowed for the creation of groups with near equal sample sizes.

Hypotheses that predicted a difference in the strength of two different correlations were tested using a formula developed by Steiger (1980) to test for differences between correlations from the same sample (see Table 5.4 for complete explication of the formula).

All significance tests were two-tailed and used a .05 level of significance. The statistical results of the simple correlational tests are presented in Table 5.2, the t-test results are shown in Table 5.3, and the test for differences between correlations are presented in Table 5.4.

TABLE 5:2

PEARSON CORRELATIONS OF ALL VARIABLES

	VRI	ORI	PK	ASS	SE	# of SE	L of A	ESS
value-relevant involvement								
outcome-relevant involvement	.40 **							
product knowledge	.39 ** 2a	.26* * 1a						
awareness set size	.46 ** 6a	.27 ** 5a	.48 ** 4a					
shopping enthusiasm	.65 ** 13a	.29* * 12a	.41* *	.43* *				
number of salient attributes	.25 ** 10a	.09 9a	.10 8a	.23 **	.23 **			
lattitudes of acceptance	-.33 ** 15	-.21 ** 14a	-.08	-.16 *	-20 **	-.48 **		
evoked set size	.16 * 21a	.09 20a	-.01	.03 19a	.16 * 16a	.14 17a	.08 18a	

Numbers indicate hypotheses ** $p < .01$, *$p < .05$ (2 tailed)

TABLE 5.3:
RESULTS OF HYPOTHESIS TESTS : T-TESTS

hypoth #	dependent variable	independent variable groups	# of cases	mean	t-value	p-value
1b	product knowledge	high outcome-relevant involvement.	88	21.72	4.41	.001
		low outcome relevant involvement	95	18.55		
2b	product knowledge	high value-relevant involvement.	91	21.62	4.10	.001
		low value relevant involvement	92	18.62		
4b	awareness set size	low product knowledge	98	16.33	-6.95	.001
		high product knowledge	85	23.25		
5b	awareness set size	high outcome relevant involvement	88	21.61	3.70	.001
		low outcome-relevant involvement	95	17.62		
6b	awareness set size	high value relevant involvement	91	22.34	5.36	.001
		low value-relevant involvement	92	16.77		
8b	# of salient attributes	low product knowledge	98	8.65	-2.08	.039
		high product knowledge	85	9.32		
9b	# of attributes	high outcome-relevant involvement	91	9.30	2.02	.045
		high outcome-relevant involvement	92	8.65		
10b	# of salient attributes	high value-relevant involvement	91	9.30	2.09	.038
		low value-relevant involvement	92	8.63		

TABLE 5.3 (continued)
RESULTS OF HYPOTHESIS TESTS: T-TESTS

hypoth #	dependent variable	groups	# of cases	mean	t-value	p-value
12b	shopping enthusiasm	high outcome-relevant involvement	88	30.55	-3.29	.001
		low outcome-relevant involvement	92	34.90		
13b	shopping enthusiasm	high value-relevant involvement	91	28.14	-7.92	.001
		low value-relevant involvement	92	37.41		
14b	lattitudes of acceptance	high outcome-relevant involvement	91	48.65	-3.51	.001
		low outcome-relevant involvement	92	54.80		
16b	evoked set size	high shopping enthusiasm	88	7.99	1.23	.220
		low shopping enthusiasm	95	7.27		
17b	evoked set size	low number of salient attributes	88	7.26	-1.18	.239
		high number of salient attributes	95	7.95		
18b	evoked set size	narrow lattitudes of acceptance	88	7.78	.54	.589
		wide lattitudes of acceptance	95	7.46		
19b	evoked set size	low awareness set size	88	7.28	-1.16	.247
		high awareness set size	95	7.96		

TABLE 5.3 (continued)
RESULTS OF HYPOTHESIS TESTS: T-TESTS

hypoth #	dependent variable	groups	# of cases	mean	t-value	p-value
20b	evoked set size	high outcome-relevant involvement	91	7.99	1.23	.220
		low outcome-relevant involvement	92	7.27		
21b	evoked set size	high value-relevant involvement	91	7.95	1.12	.263
		low value-relevant involvement	92	7.29		

TABLE 5.4: TESTS FOR DIFFERENCES BETWEEN CORRELATIONS

Hypothesis #	Dependent Variable	Independent Variables	rs	*t-Value	p-Value
3	product knowledge	outcome-relevant involvement	-.2651	1.996	.0456
		value-relevant involvement	-.3945		
7	awareness set size	outcome-relevant involvement	-.2703	2.878	.004
		value-relevant involvement.	-.4630		
11	# of attributes	outcome-relevant involvement	-.0897	2.024	.043
		value-relevant involvement	-.2491		
15	lattitudes of acceptance	outcome-relevant involvement	.1737	2.49	.014
		value-relevant involvement	.3969		

*Steiger's (1980) t-test for difference between dependent r's

$$t = \frac{(r_{xy} - r_{vy})\sqrt{(n-1)(1+r_{xv})}}{\sqrt{2(n-1)/(n-3)\,|R| + r^2(1-r_{xv})^3}}$$

$$r^2 = \frac{r_{xy} + r_{vy}}{2}$$

$$|R| = 1 - r_{xy}^2 - r_{vy}^2 - r_{xv}^2 + 2(r_{xy}r_{vy}r_{xv})$$

Hypothesis 1a: Outcome-relevant involvement has a positive effect on product knowledge.

Hypothesis 1b: Subjects with high outcome-relevant involvement have significantly greater product knowledge than subjects with low outcome-relevant involvement.

Both hypotheses are supported. In 1a, a significant positive relationship was found between outcome-relevant involvement and product knowledge. The correlation is .256, R^2 =.066, and the p-value is < .001.

In 1b, a significant difference in mean product knowledge was found between the high and low outcome-relevant involvement groups. The mean of the high group was 21.7, the mean of the low group was 18.5. The t-value for the means test was 4.41 with a p-value < .001, and the difference was in the predicted direction.

The findings of both 1a and 1b, provide strong support for the existence of a positive relationship between outcome-relevant involvement and product knowledge. This supports the reasoning that consumers who are concerned about the outcome of the purchasing task will be more motivated to improve their expertise by actively seeking out information to help them make their decision.

Hypothesis 2a: Value-relevant involvement has a positive effect on product knowledge.

Hypothesis 2b: Subjects with high value relevant involvement have significantly greater product knowledge than subjects with low value-relevant involvement

Both hypotheses are supported. For 2a, a significant positive relationship was found between value-relevant involvement and product knowledge. The correlation is .3935, R^2 =.155, and the p-value is < .001.

For 2b, a significant difference in mean product knowledge was found between the high and low value-relevant involvement groups. The mean of the high group was 21.6, the mean of the low group was 18.6. The t-value for the means test was 4.10 with a p-value < .001, and the difference was in the hypothesized direction.

The findings of both 2a and 2b, provide support for the existence of a positive relationship between value-relevant involvement and product knowledge. These findings support the notion that value-involved consumers are likely to have superior product knowledge due to their maintenance of an ongoing relationship with the product category.

Hypothesis 3: Value-relevant involvement has a stronger relationship with product knowledge than outcome-relevant involvement.

Hypothesis 3 is supported. A significant difference was found between the correlations of the two different involvement types and product knowledge. The correlation between outcome relevant involvement and product knowledge was -.27, the correlation between value-relevant involvement and product knowledge was -.39. The Steiger (1980) significance test yielded a t-value of 1.996, with a p-value of .046, and the difference was in the predicted direction. The results provide support for the hypothesis that value-relevant involvement has a stronger relationship with product knowledge than outcome-relevant involvement. The reasoning for this difference is that value-involved consumers are thought to have maintained a longer term relationship with the product category, and thus should have developed a deeper set of product knowledge.

Hypothesis 4a: Product knowledge has a positive effect on awareness set size.

Hypothesis 4b: Subjects with high product knowledge have larger awareness sets than subjects with low product knowledge.

Both hypotheses are supported. For 4a, a significant positive relationship was found between product knowledge and awareness set

size. The correlation between the two variables is .477, R^2 =.228, and the p-value is < .001.

For 4b, a significant mean awareness set size difference was found between the high and low product knowledge groups. The mean of the high group was 23.2, the mean of the low group was 16.3. The t-value for the means test was -6.95 with a p-value < .001, and the differences are in the predicted direction. Thus the findings of 4a and 4b, provide strong support for the existence of a positive relationship between product knowledge and awareness set size. This was expected since awareness set size is thought to be a type of product knowledge.

Hypothesis 5a: Outcome-relevant involvement has a positive effect on awareness set size.

Hypothesis 5b: Subjects with high outcome-relevant involvement have significantly larger awareness sets than subjects with low outcome-relevant involvement.

Both hypotheses are supported. For 5a, a significant positive relationship was found between outcome relevant involvement and awareness set size, in the hypothesized direction. The correlation is .2703, R^2 =.0731, and the p-value is < .001.

For 5b, a significant mean awareness set size difference was found between the high and low outcome-relevant groups. The mean of the high group was 21.6, the mean of the low group was 17.6. The t-value for the means test was 3.70 with a p-value $< .001$, and the difference was in the predicted direction. Thus both results provide strong support for the existence of a positive outcome-relevant involvement - awareness set size relationship.

Hypothesis 6a: Value-relevant involvement has a positive effect on awareness set size.

Hypothesis 6b: Subjects with high value relevant involvement have significantly larger awareness sets than subjects with low value-relevant involvement

Both hypotheses are supported. For 6a, a significant positive relationship was found between value-relevant involvement and awareness set size. The correlation between the two is .463, $R^2 = .078$, and the p-value is $< .001$.

For 6b, a significant mean awareness set size difference was found between the high and low value-relevant groups. The mean of the high group was 22.3, the mean of the low group was 16.8. The t-value for the test was 5.36 with a p-value $< .001$, and the difference occurs in the predicted direction.

The findings of both 6a and 6b, provide strong support for the existence of a positive relationship between value-relevant involvement and awareness set size. These results support the reasoning that value involved subjects are likely to be familiar with even the lesser known brands due to their maintenance of an ongoing relationship with the product category.

Hypothesis 7: Value-relevant involvement has a stronger relationship with awareness set size than outcome-relevant involvement.

This hypothesis is supported. A significant difference was found between the two types of involvement in terms of the strength of their correlations with awareness set size. The correlation between outcome relevant involvement and awareness set size was -.27, the correlation between value-relevant involvement and product knowledge was -.46. The Steiger (1980) formula yielded a t-value of 2.878, and a p-value of .004, and the difference occurs in the predicted direction. Thus the results of Hypothesis 7 indicate that value-relevant involvement is more strongly related to awareness set size than outcome-relevant involvement. The primary reason for this difference is believed to be the significant difference in the strength of their relationships with product knowledge (see Hypothesis 3) which has been shown to be a significant antecedent of awareness set size (see Hypotheses 4a and 4b).

Hypothesis 8a: Product knowledge has a positive effect on the number of salient attributes.

Hypothesis 8b: Subjects with high product knowledge have more salient attributes than subjects with low product knowledge.

Hypothesis 8a is not supported. While a positive correlation of .1012 was found between the two variables (R^2 =.01), the p-value of .17 indicates that the relationship is not significant.

Hypothesis 8b is supported. At the .05 level, a significant difference in the mean number of attributes was found between the high and low product knowledge groups. The mean of the high group was 9.3, the mean of the low group was 8.7. The t-value for the test was
-2.08 with a p-value of .039, and the difference was in the predicted direction.

These findings provide some support for the existence of a positive relationship between product knowledge and the number of salient attributes. Even though the sample correlation in 8a was insignificant, it was in the hypothesized direction. More convincing were the results of the t-test, which although less powerful than the correlational test, did produce significant results.

The inconsistency in the results of the two tests is believed to be due to possible non linearity in the relationship between product knowledge and the number of attributes. This possibility was examined by breaking down product knowledge into quartiles, and looking at the pattern of the means to see if they deviated from linearity. The results of this breakdown are shown below:

P. K. Quartile	Mean # of salient attributes
1 (low)	8.89
2	8.43
3	9.48
4 (high)	9.08

The breakdown does appear to show some evidence of non-linearity in the relationship between product knowledge and the number of salient attributes (e.g.; Q3>Q4, Q1>Q2). This pattern of results is similar to the inverted-U relationship found between product knowledge and the number of salient attributes in previous research (Johnson and Russo 1984). Using this quartile breakdown an Eta-square - R-square test was conducted to see if there is a significant non-linear relationship between product knowlwdge and the number of salient attributes. The significance test produced an F-ratio of 2.41 which is insifgnificant at the .05 level. Thus it is concluded that the t-test does provide limited evidence of a weak positive relationship, but that the results of the linear and non-linear association tests indicate that the relationsip is not very strong or consistent across different levels of product knolwedge.

Hypothesis 9a: Outcome-relevant involvement has a positive effect on the number of salient evaluative attributes.

Hypothesis 9b: Subjects with high outcome-relevant involvement have significantly more salient attributes than subjects with low outcome-relevant involvement

Hypothesis 9a is not supported. Although the relationship between the variables is in the predicted direction, the correlation is only .09, R^2 =.01, and the p-value is .227, and thus is insignificant.

Hypothesis 9b is supported. At the .05 level, a significant difference in the mean number of attributes was found between the high and low outcome relevant involvement groups. The mean of the high group was 9.3, the mean of the low group was 8.7. The t-value for the means test is 2.02 with a p-value of .045, and the difference is in the hypothesized direction.

The results of the statistical tests above mirror the results of Hypotheses 8a and 8b; an insignificant correlation in the hypothesized direction and a significant difference between the high and low groups. Thus, like in the previous set of hypotheses, it was thought that the inconsistency in the results of the two tests could also be due to non linearity. This possibility was examined by breaking down outcome-relevant involvement into quartiles, and looking at the

means to see if they deviated from linearity. The results of this breakdown are shown below:

O. R. Involvement Quartile	Mean # of Salient Attributes
1 (high)	9.22
2	9.38
3	8.51
4 (low)	8.79

The breakdown does appear to show some evidence of non-linearity in the relationship between outcome-relevant involvement and the number of salient attributes (Q2 > Q1, Q4 > Q3). Once again an Eta-square - R-Square test of nonlinearity was performed and once again the results were insiginicant ($F = 1.91$, $p > .05$). Thus it is concluded that limited evidence of a weak positive relationship is provided by the t-test, but that the results of the linear and non-linear association tests indicate that the relationsip is not very strong or consistent across different levels of outcome-relevant involvement.

Hypothesis 10a: Value-relevant involvement has a positive effect on the number of salient attributes.

Hypothesis 10b: Subjects with high value-relevant involvement have significantly more salient attributes than those subjects with low value-relevant involvement

Both hypotheses are supported. For 10a, a significant positive relationship was found between value-relevant involvement and the number of salient attributes. The correlation between the two is .25, R^2 is .063, and the p-value is < .001.

For 10b, a significant difference in the mean number of attributes was found between the high and low value-relevant involvement groups. The mean of the high group was 8.6, the mean of the low group was 9.3. The t-value for the means test is 2.09 with a p-value of .038, and the difference is in the hypothesized direction. Thus the findings of both tests provide clear support for the existence of a positive relationship between value-relevant involvement and the number of salient attributes.

Hypothesis 11: Outcome-relevant involvement has a stronger relationship with the number of salient evaluative attributes than value-relevant involvement.

The hypothesis is not supported. While a significant difference was found between the two types of involvement in terms of the number of salient attributes, the direction of the difference was opposite of what was hypothesized. The correlation between outcome relevant involvement and the number of salient attributes was -.09, the correlation between value-relevant involvement and the number of attributes was -.25. The Steiger (1980) formula yielded a t-value of

2.02, and a p-value of .043. Thus value relevant involvement was actually found to have a significantly stronger relationship with the number of salient attributes than outcome-relevant involvement.

It had been thought that outcome-relevant involvement would relate more strongly to the number of salient attributes because it would provide more motivation for making thorough evaluations of alternatives. The fact that the results indicate value-relevant involvement relates more strongly could be due to greater awareness and understanding of the attributes resulting from superior product knowledge (see Hypothesis 3).

Hypothesis 12a: Value-relevant involvement has a positive effect on shopping enthusiasm.

Hypothesis 12b: Subjects with high value-relevant involvement have significantly greater shopping enthusiasm than subjects with low value-relevant involvement

Both hypotheses are supported. In 12a, a significant positive relationship was found between value-relevant involvement and shopping enthusiasm. The correlation between the two is .65, R^2 =.423, and the p-value is < .001.

In 12b a significant mean difference in shopping enthusiasm was found between the high and low value-relevant involvement groups. The mean of the high group was 30.5, the mean of the low group was 34.9. The t-value for the means test is -7.92 with a p-value $< .001$, and the difference is in the hypothesized direction. Thus very strong support for the hypothesized positive relationship between value-relevant involvement and shopping enthusiasm was found.

Hypothesis 13a: Outcome-relevant involvement has a negative effect on shopping enthusiasm.

Hypothesis 13b: Subjects with high outcome-relevant involvement have significantly less shopping enthusiasm than subjects with low outcome-relevant involvement

Neither hypothesis is supported. While there is a significant relationship between outcome-relevant involvement and shopping enthusiasm, it is not in the hypothesized negative direction. The correlation between the two variables is .29, $R^2 = .084$, and the p-value is $< .001$ thus indicating a strong positive relationship.

Similarly the t-test found a significant mean difference in shopping enthusiasm between the high and low outcome-relevant involvement groups, however the difference was not in the

hypothesized direction. The mean of the high group was 28.1, the mean of the low group was 37.4. The t-value for the means test is -3.29 with a p-value of .001.

The results of these two hypothesis tests provide strong evidence that a positive relationship exists between outcome-relevant involvement and shopping enthusiasm. It had been hypothesized that the relationship would be negative because outcome-relevant involved people would be more driven by extrinsic motivation (achievement of a satisfactory outcome) and thus find the task itself to be less enjoyable and more stressful.

Possible reasons why a significant positive relationship was found include the following:

1) The drawing used to increase outcome-relevant involvement may have eased the stress of the purchase decision for the subjects by creating a no-lose situation. Instead of being concerned about the consequences of misspending their hard earned money, such subjects may have been excited by the opportunity to win a free car stereo gift certificate and thus have been very enthusiastic about car stereo shopping in that context.

2) A strong positive relationship between value-relevant and outcome-relevant involvement ($r = .3969$) may indicate that value-relevant involvement is an antecedent of outcome-relevant

involvement. This has been suggested by other researchers (Bloch and Richins 1983), but not actually empirically tested. Since value-relevant involvement has already been shown to have a strong positive relationship with shopping enthusiasm (see Hypotheses 12a and 12b), the positive relationship found between outcome-relevant involvement and shopping enthusiasm may be largely the result of a spurious correlation mediated by value-relevant involvement. A test of this explanation was made by calculating the partial correlation between outcome-relevant involvement and shopping enthusiasm, controlling for value-relevant involvement. The partial correlation between the two was only .037 with a p-value of .55 thereby providing support for the explanation that the relationship may be spurious. However the sign of the partial correlation is positive which is contradictory to the direction specified in the hypothesis.

3) Finally, giving subjects access to such extensive product information (particularly product ratings) may have eased the perceived difficulty of the shopping task for the those who initially might have lacked confidence and been most likely to find the task stressful. With such information they may have had confidence that they could make a satisfactory choice thereby increasing their enthusiasm.

Hypothesis 14a: Outcome-relevant involvement has a negative effect on the width of the latitudes of acceptance.

Hypothesis 14b: Subjects with high outcome-relevant involvement have narrower latitudes of acceptance than subjects with low outcome-relevant involvement.

Both hypotheses are supported. For 14a, a significant negative relationship was found between outcome-relevant involvement and the width of the lattitudes of acceptance. The correlation between the two is -.215, R^2 =.046, and the p-value is .004.

For Hypothesis 14b, a significant mean difference in the lattitudes of acceptance was found between the high and low outcome-relevant involvement groups. The mean of the high group was 48.6, the mean of the low group was 54.8. The t-value for the means test is -3.51 with a p-value of .001, and the difference is in the hypothesized direction. As a result both tests provide support for the conclusion that outcome involved individuals are more demanding in their attribute requirements.

Hypothesis 15: Outcome-relevant involvement has as stronger negative effect on the width of the latitudes of acceptance than value-relevant involvement.

This hypothesis is not supported. While a significant difference was found between the two types of involvement in terms of the strength of their negative relationships with lattitudes of acceptance, the direction of the difference was not as hypothesized. The results indicate that value relevant involvement has a significantly stronger negative relationship with lattitudes of acceptance than outcome relevant involvement. The correlation between outcome relevant involvement and lattitudes of acceptance was -.17, the correlation between value-relevant involvement and lattitudes of acceptance was -.40. The Steiger (1980) formula produced a t-value of 2.49, and a p-value of .014.

Thus the results indicate that value-relevant involved consumers are actually more demanding than outcome relevant involved consumers. One possible explanation for this might be that the value-relevant involved consumers maintain an ongoing hobby like interest in the product category. This ongoing interest could likely result in strong commitments being made to beliefs about the necessity of certain attributes. Outcome relevant involved consumers do not necessarily have this background and thus may be less likely to place too much importance on any one attribute.

Hypothesis 16a: Shopping enthusiasm has a positive effect on evoked set size.

Hypothesis 16b: Subjects with high shopping enthusiasm have larger evoked set sizes than subjects with low shopping enthusiasm.

Hypothesis 16a is supported. A significant positive relationship was found between shopping enthusiasm and evoked set size. The correlation between the two is .163, R^2 =.027, and the p-value is .028.

However hypothesis 16b is not supported. While the differences are in the hypothesized direction, a significant difference does not exist between the mean evoked set sizes of the low and high shopping enthusiasm groups. The mean of the high group was 8.0, the mean of the low group was 7.3. The t-value for this means test is 1.23, with a p-value of .220.

Despite the insignificant t-test, the data provides evidence that a positive relationship exists between shopping enthusiasm and evoked set size. It is believed that the discrepancy in the results of the two tests is simply due to the fact that the relationship between the two variables is not particularly strong, and that the t-test may have lacked the power to detect it.

Hypothesis 17a: The number of salient evaluative attributes has a negative effect on evoked set size.

Hypothesis 17b: Subjects with a high number of evaluative attributes have smaller evoked set sizes than subjects with a low number of evaluative attributes.

Neither hypothesis is supported. For 17a, a marginally significant positive relationship was found between the number of salient attributes and evoked set size. The correlation between the two variables is .144, (R^2 =.021), and the p-value = .052.

For 17b, a significant difference in mean evoked set size was not found between the low and high number of salient attributes groups. The mean of the high group was 7.9, the mean of the low group was 7.3. The t-value for the means test is -1.18, the p-value is .239, and the differences are not in the hypothesized direction. Thus given the results of the two tests above do not provide sufficient evidence that a relationship exists between the number of salient attributes and evoked set size.

Hypothesis 18a: The widths of the latitudes of acceptance have a positive effect on evoked set size.

Hypothesis 18b: Subjects with wide latitudes of acceptance have larger evoked set sizes than subjects with narrow latitudes of acceptance.

Neither hypothesis is supported. In 18a, an insignificant positive relationship was found between latitude of acceptance width and evoked set size. The correlation between the two is .083, R^2 =.007, and the p-value is .259.

In 18b, a significant difference was not found between the mean evoked set sizes of the wide and narrow lattitudes of acceptance groups. The mean of the wide group was 7.5, the mean of the low group was 7.8. The t-value for the means test is .54, the p-value is .588, and the differences are not in the hypothesized direction.

Thus surprisingly, based on the results above, no evidence was found that lattitudes of acceptance have a significant effect on evoked set size. The simplest explanation for this lack of a relationship might be that consumers do not adhere very closely to their own stated selection criteria. Another, perhaps more plausible explanation, is that differences in the price ranges subjects were willing to consider may have worked to equalize the evoked sets of demanding (narrow lattitudes) and non demanding (wide lattitudes) consumers. The non demanding consumer may have found only a limited number of the models to be practical due to a rather limited price range, while the demanding consumer might have been more willing to consider the higher priced models which offered the kind of performance he/she demanded. Thus perhaps non demanding consumers were limited in their choice alternatives by price, and demanding consumers were limited by their more stringent performance requirements.

Hypothesis 19a: Awareness set size is positively related to evoked set size.

Hypothesis 19b: Subjects with large awareness sets have larger evoked sets than subjects with small awareness sets.

Neither hypothesis is supported. In 19a, an insignificant positive relationship was found between awareness set size and evoked set size. The correlation between the two is .026, R^2 =.001, and the p-value = .724.

In 19b, a significant difference was not found between the mean evoked set sizes of the low and high awareness set size groups. The mean of the high group was 8.0, the mean of the low group was 7.3. The t-value for this means test was -1.16, the p-value is .247, and the differences are in the hypothesized direction. Thus no support is found for a relationship between awareness set size and evoked set size. One obvious explanation for the lack of a significant relationship is that the checklist format of the evoked set measure eliminated the necessity for subjects to make unaided recalls of which brands to consider. Another possible explanation could be that the "Consumer Reports style" product ratings provided to the subjects may have given them enough confidence to consider unfamiliar brands. These attribute by attribute ratings of each model may have convinced subjects that high rated, but unfamiliar brands, were

worthy of consideration. Without such ratings, unknowldgeable people may have been more wary of considering unfamiliar brands.

Hypothesis 20a: Outcome-relevant involvement is negatively related to evoked set size.

Hypothesis 20b: Subjects with high outcome-relevant involvement have significantly smaller evoked sets than subjects with low outcome-relevant involvement.

Neither hypothesis is supported. For 20a, an insignificant positive relationship was found between outcome-relevant involvement and evoked set size. The correlation between the two is .094, R^2 =.009, and the p-value = .205.

For 20b, a significant difference was not found between the mean evoked set sizes of the low and high outcome-relevant involvement groups. The mean of the high group was 8.0, the mean of the low group was 7.3. The t-value for this test is 1.23, the p-value is .220, and the differences are not in the hypothesized direction.

While this relationship was not significant as hypothesized, the results are not surprising given the results of the Hypotheses 17a through 18b. Outcome-relevant involvement had been hypothesized

to affect evoked set size primarily by working through lattitudes of acceptance and the number of salient attributes. However since both of these variables had insignificant relationships with evoked set size, so too did outcome-relevant involvement.

Hypothesis 21a: Value-relevant involvement has a positive effect on evoked set size.

Hypothesis 21b: Subjects with high value-relevant involvement have significantly larger evoked sets than subjects with low value-relevant-relevant involvement.

Hypothesis 21a is supported. A significant positive relationship was found between value-relevant involvement and evoked set size. The correlation between the two is .162, R^2 =.026, and the p-value = .028.

Hypothesis 21b is not supported. A significant difference was not found between the mean evoked set sizes of the low and high value-relevant groups. The mean of the high group was 8.0, the mean of the low group was 7.3. The t-value for this test is 1.12, the p-value is .263, and the differences are in the hypothesized direction.

Despite the insignificant t-test, the data does support the conclusion that value-relevant involvement has a positive effect on

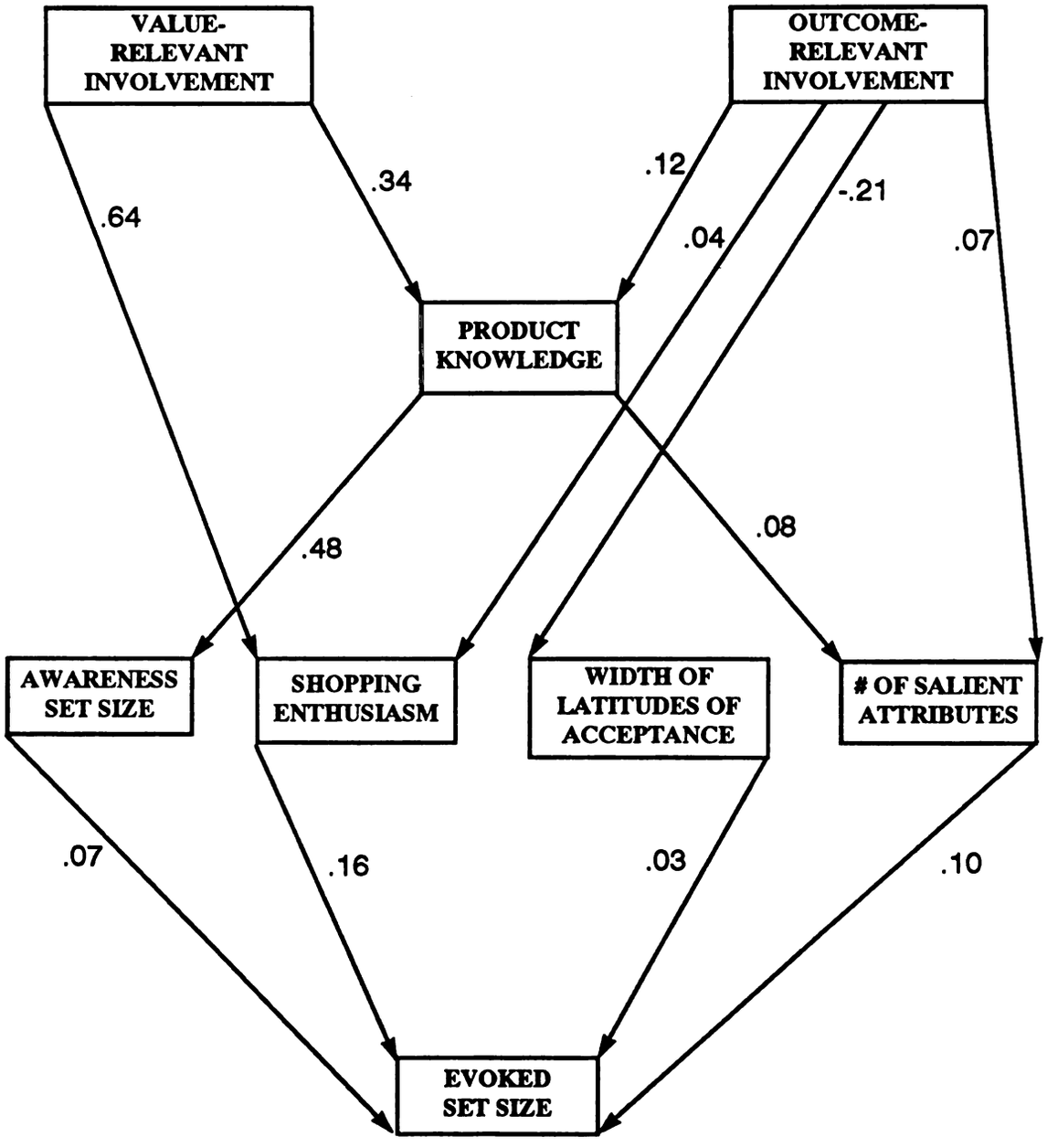
evoked set size. Similar to the interpretation of the findings in Hypotheses 17a and 17b, it is believed that the discrepancy in the results of the two tests is simply due to the fact that the relationship between the two variables is not particularly strong, and that the t-test may have lacked the power to detect it.

The positive relationship is supported despite the findings in Hypotheses 14a, 14b , and 15 which indicate that value-involved consumers are more demanding (narrow lattitudes of acceptance). One explanation that might reconcile these two seemingly contradictory results could be that value-relevant involvement may cause consumers to be less price conscious and thus more likely to consider the high priced/high performance alternatives that may be out of the price range of less demanding consumers.

Hypothesis 22: The hypothesized path model explicated in Figure 1, will provide a good fit to the data ($p > .1$).

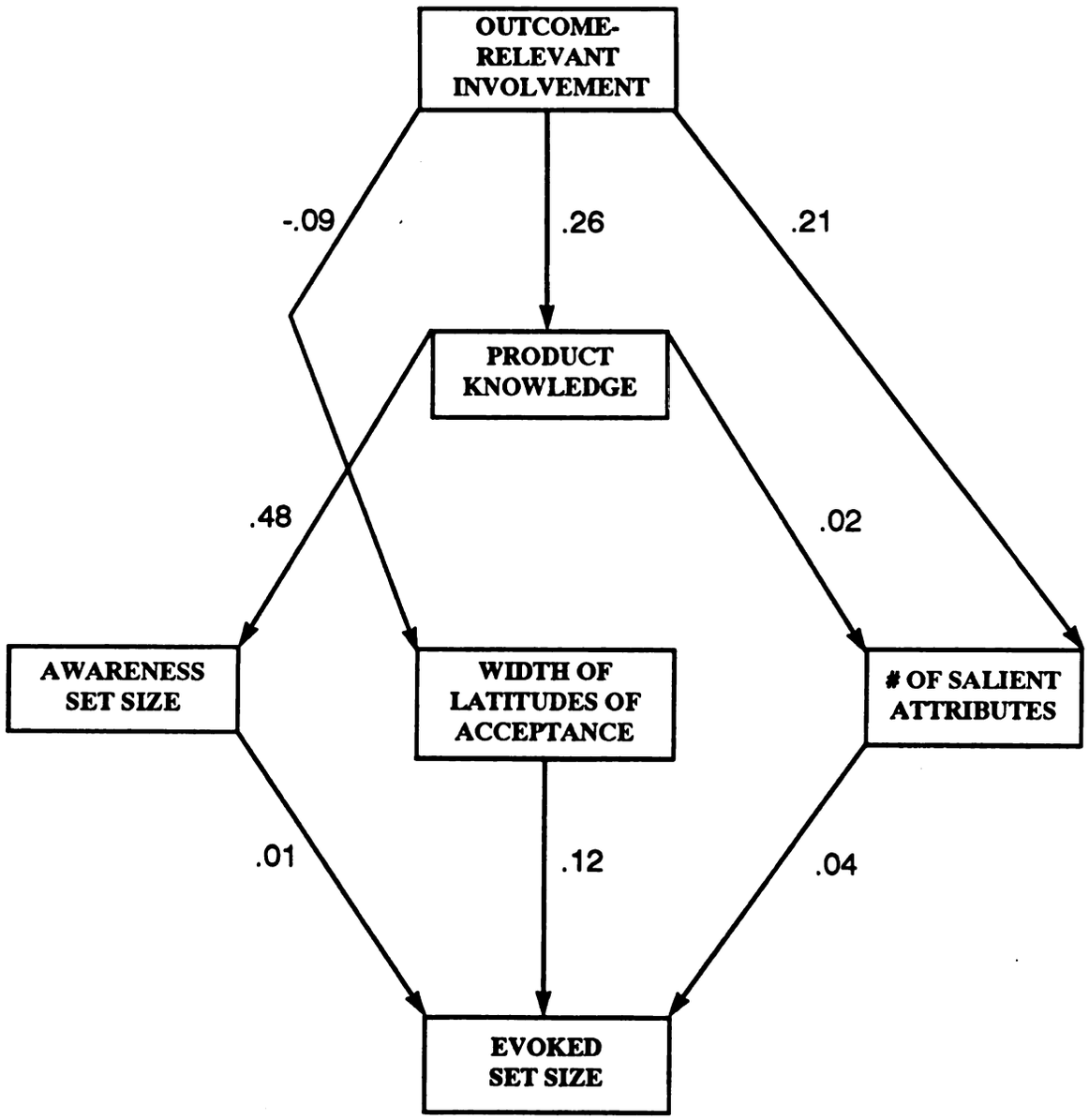
The hypothesis, as stated above is not supported. The path model explicated in figure 1, produced a χ^2 value of 41.14 with 14 degrees of freedom. This χ^2 corresponds to a p-value $< .005$, thus indicating the model fails to provide a good fit to the data. The results of the path analysis for this model are shown in Figure 3.

FIGURE 3
RESULTS OF PATH ANALYSIS:
NEWLY HYPOTHESIZED MODEL



$x^2 = 41.14$
df = 15
$p < .01$

FIGURE 4
RESULTS OF PATH ANALYSIS:
CURRENT LITERATURE MODEL



$x^2 = 17.47$
df = 7
$p < .025$

Hypothesis 23: The hypothesized path model explicated in Figure 1, will provide a better fit to the data than the path model derived from the current literature (Figure 2).

This hypothesis is not supported. While the model derived from the current literature also fails to provide a good fit ($\chi^2=17.47$, $df=7$, $p<.025$) it does actually have a higher p-value than that for the hypothesized path model. Thus no evidence is provided that the hypothesized path model fits the data better than the one derived from the current literature. The results of this path analysis are shown in Figure 5.

SUMMARY OF RESULTS

In all, 23 sets of hypotheses were tested that examined the effects of two different types of involvement (outcome and value-relevant) on the size of consumer evoked sets, working through a number of mediating variables (product knowledge, lattitudes of acceptance, number of salient attributes, awareness set size, and shopping enthusiasm). Support was found for all five hypothesized bivariate relationships that involved value-relevant involvement as an antecedent. Three of the five hypothesized bivariate relationships involving outcome-relevant involvement as an antecedent also received support. Of the six variables that were hypothesized to be antecedents of evoked set size, only two, shopping enthusiasm and value-relevant involvement, had significant relationships.

The results of the path analysis did not show that the hypothesized path model fit the data better than the model derived from the current literature. However, it is worth noting that the only two variables in the study that were found to have a significant effect on the dependent variable (evoked set size), appeared only in the new model. Thus while the current literature model was able to provide accurate specifications of the effects of involvement on the mediating variables, it failed to specify any mediating variables which could explain significant variance in evoked set size. Thus, despite the fact that the new model did not provide a better overall fit to the data, the results of the study provide justification for the necessity of considering the effects of both shopping enthusiasm and value-relevant involvement, in the study of the antecedents of evoked set size.

CHAPTER SIX

SUMMARY AND DISCUSSION

This chapter gives a summary of the research and the conclusions that were reached. This chapter also discusses the contributions of the study, its managerial implications, and its limitations. In addition, future research directions are suggested.

RESEARCH SUMMARY

The current research study examined the effects that value-relevant and outcome-relevant involvement have on evoked set size, working through a number of mediating variables. A theoretical path model of the hypothesized evoked set formation process was devised, and measurement scales for each variable in this process were developed from measures used in previous research. These scales were put together in a questionnaire that specifically applied this model toward the formation of evoked sets in the product category of car stereos.

Data were collected, by administering the resulting questionnaire to 182 upper division undergraduate college students. Subjects were asked to assume they were currently in the market for a car stereo, and to evaluate the acceptability of 28 different car stereo models. Outcome relevant involvement was manipulated by tying the evaluation of the car stereo models to an incentive drawing. This was

done by telling the subjects in the high outcome-relevant involvement condition that the prize for the incentive drawing was a car stereo gift certificate that could only be redeemed on one of the car stereos they were asked to evaluate.

After the data were collected, path analyses were performed on both the newly hypothesized model of the evoked set formation process as well as the competing model derived from the current literature. The results of the path analysis indicated that neither provided a good fit to the data. In addition individual tests were made of the relationships between key variables in the process. Sets of hypotheses regarding 21 different bivariate relationships were tested, and 14 received statistically significant support. While most of the hypothesized relationships between the two involvement types and the mediating variables were supported, shopping enthusiasm was the only one of the four mediating variables hypothesized to have an effect on evoked set size, that was actually found to have a significant relationship.

In summary, the major conceptual focus of the research was an examination of the effects that different types of involvement have on the evoked set formation process. Previous research had tended to focus only on outcome-relevant involvement, however this study also considered the potentially differential effects of value-relevant involvement as well. The results indicated that several previously neglected variables (value-relevant involvement, shopping

enthusiasm) had a much stronger effect on evoked set size than those more frequently studied in previous research (outcome-relevant involvement, awareness set size, number of attributes, lattitudes of acceptance).

RESEARCH OBJECTIVES AND CONCLUSIONS

For the purpose of summary and conclusions, the 40 separate hypotheses that were tested in the research study can be condensed into three major research objectives. These objectives were: 1) To provide evidence showing that the two types of involvement have differential effects on the process of forming evoked sets. 2) To develop a good fitting path model of the evoked set formation process. 3) To provide justification for the inclusion of two variables previously neglected in studies of evoked sets, value-relevant involvement and shopping enthusiasm.

In terms of the first objective, the research results do not provide evidence that the two types of involvement have differential effects on evoked set size nor for that matter any of the other variables in the study. As a result, these findings alone will not support the conclusion that the two types of involvement are conceptually distinct. Instead the evidence more strongly supports the perspective that value-relevant involvement is an antecedent of outcome-relevant involvement. The conceptual justification for this relationship is that one's interest in a product category might cause them to become more concerned about the outcome of a purchase

decision regarding that product category. This relationship is supported by the relatively high correlation of .39 between the two types of involvement. In addition the two variables had parallel correlations with all the other variables in the study, with value-relevant involvement always having the stronger correlation (see table 5.2).

While it is still believed that the two types of involvement are conceptually distinct, the study results do provide strong evidence that value-relevant involvement is an antecedent of outcome-relevant involvement. The parallel correlations seem to be a result of a combination of this relationship and a failure to create a significant amount variation in outcome-relevant involvement with the treatment manipulation. Comparison of mean manipulation check and outcome-relevant involvement scale scores for the two treatment groups indicate that relatively high levels of involvement were induced in both groups. Thus it appears the main problem with the manipulation was that the use of a fairly high involvement product, and a cash drawing, created too much involvement in the low involvement condition. As a result the only strong source of variation on outcome-relevant involvement was the level of value-relevant involvement one had. Thus the outcome-relevant involvement measure in this study appears to be little more than an attenuated version of value-relevant involvement.

While it is unfortunate that the manipulation was not more effective, it does not totally nullify the usefulness of the research in regard to providing support for this objective. This is particularly true when the results of this study are compared to the findings of previous studies. One of the most notable findings of this study actually tends to support the first objective. This finding is that, as hypothesized, value-relevant involvement had a significant positive effect on evoked set size. This is important because the accepted view in the literature is that involvement has a negative effect on evoked set size (Gensch and Javalgi 1987, Harrell 1986, Rothschild and Houston 1977). Given that these previous studies only operationalized outcome-relevant involvement, the difference in results could be attributable to the hypothesized differential effects that outcome and value relevant involvement have on evoked set size. Thus while the ineffectiveness of the manipulation may explain why some of the hypothesized results were not obtained for outcome-relevant involvement, it does not diminish the validity of the hypothesized results that were obtained with regard to value-relevant involvement. Thus it is believed that limited support for this objective was found. This support is based on the differential effects value relevant involvement had on evoked set size in comparison to the effects that outcome relevant involvement had on evoked set size in previous studies.

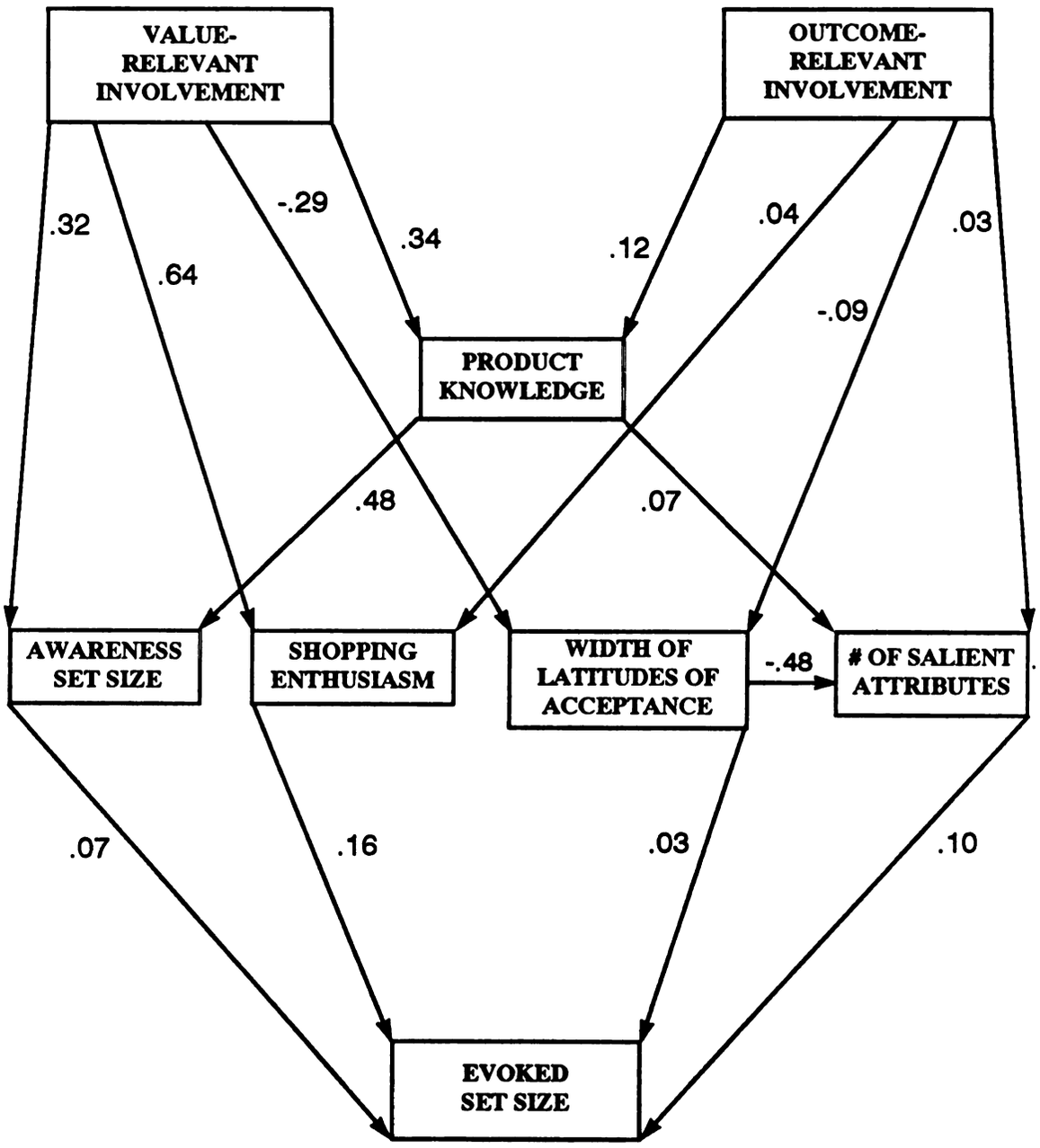
The second objective, to develop a good-fitting model of the evoked set process, was not met. Path analysis of the hypothesized

path model produced a χ^2 that was significant at the .01 level. However, it should be noted that if the model is revised by adding three relatively rather minor linkages (minor in terms of the conceptual focus of the paper), the χ^2 can be dropped to 6.10, at 12 degrees of freedom. This revised model produces a p-value $< .25$, thereby indicating a good fit. The three additions that were made to the revised model are; a link from lattitudes of acceptance to the number salient of attributes, a link from value-relevant involvement to awareness set size and a link from value-relevant involvement to lattitudes of acceptance. The results of the revised model are shown in Figure 5.

The link between lattitudes of acceptance and the number salient of attributes is considered minor because it simply links two mediating variables and hence does not involve either of the two involvements nor evoked set size (the primary antecedent and consequent variables in the model). The latter two additions are new linkages between value-relevant involvement and two of the mediating variables. They are considered minor since their inclusion simply indicates that value-relevant involvement has greater influence over the evoked set formation process than was initially proposed.

Conceptual justification for the linkage between lattitudes of acceptance and number of salient attributes can be justified by the fact that previous research by Belonax and Javalgi (1989), and Rothschild and Houston (1977) has indicated that two variables are highly

FIGURE 5
RESULTS OF PATH ANALYSIS:
REVISED NEWLY HYPOTHESIZED MODEL



x^2 = 6.10
df = 12
p > .25

interrelated. Both of these studies combined the two variables together into a surrogate measure of involvement (e.g. the Consumer Involvement Matrix), and thus it is felt that the omission of this linkage from the original model was simply an oversight.

The proposed direct positive link between value-relevant involvement and awareness set size is thought to occur in addition to the indirect positive effect mediated through product knowledge. This indicates that value-involved consumers would have awareness sets larger than expected even when their superior product knowledge is taken into consideration (controlled for). Possible explanations for this positive direct effect might be that the strong hobby like interest of value involved consumers might result in greater memory accessibility (car stereos might occupy a more central position in their memory schemas) and/or it might give them stronger motivation to retrieve previously stored information regarding car stereos.

The third revision was the link added between value-relevant involvement and lattitudes of acceptance. This addition to the model was inspired by the results of the test of Hypothesis 15. These findings showed that value-relevant involvement has a significantly stronger negative effect on lattitudes of acceptance than outcome-relevant involvement. This is noteworthy since Hypotheses 14a and 14b, had already established support for the existence of a strong negative relationship between outcome-relevant involvement and lattitudes of acceptance. Thus, given the uncovering of this

unexpectedly strong relationship, it was felt that the model should be revised in order to better reflect the true nature of the relationships between the variables.

While these revisions do alter the originally conceived path model it should be noted that none of these three additional links contradict nor detract from the central focus of the research, that was outlined in Chapter 2. As a matter of fact, the addition of two new links with value-relevant involvement as an antecedent actually provides validation for one of the major research propositions: that value-relevant involvement, although neglected by previous researchers, plays a major role in the evoked set formation process. Thus while the second objective was not met, the results of the path analysis point to several revisions that could be made to the model and investigated further in future research.

The third objective, establishing that value-relevant involvement and shopping enthusiasm play a significant role in the evoked set formation process, was also achieved. Despite the fact these two variables had been neglected in previous studies of the evoked set process, they were the only two in the study to have a significant effect on evoked set size. In addition, value-relevant involvement had a significant effect on every other variable in the study (see table 5.1) thereby indicating its critical role in driving the process. Thus the results indicate that evoked sets are not selected just on the basis of a rational need for task simplification, but rather

selection is also affected by one's interest in the product and affect for the shopping process.

RESEARCH CONTRIBUTIONS

Conceptually this research has made several contributions. First, in Chapter 2 a theoretical basis for synthesizing the many different kinds of involvement in the literature into two basic forms of the construct was presented. The classification criterion that was developed is based on an application of motivational theory to the study of involvement. Under this classification criterion involvement types are categorized on the basis of whether they represent an intrinsic or extrinsic motivational state.

A second conceptual contribution of the research was the introduction of a new variable, shopping enthusiasm, to consumer choice research. While the view that shopping can be a form of leisure behavior has long been recognized and written about, the inclusion of this new variable provides a means by which the extent of one's affect toward the shopping process and its effect on consumer choice decisions can be properly assessed. The introduction of this variable is important because it provides a means by which the experiential aspects of consumer behavior can be considered in an information processing based study.

A third conceptual contribution of the research, was the development of a theoretical path model of the evoked set process.

While a great deal of research has been done on various evoked set antecedents and selection strategies, this research was the first to devise a comprehensive model of the overall process.

In terms of methodology, the first contribution was the development of a reliable measurement scale (alpha = .91) for the new variable, shopping enthusiasm. Second, a measurement method was developed for measuring lattitudes of acceptance for product features. Previous studies had only developed measures for assessing the lattitudes of acceptance for performance standards, but this research extended this work by developing a scaling approach for attributes which are characterized by being either present or absent from a product.

A third methodological contribution was made by establishing an approach for addressing one of the most hotly debated conceptual issues in social psychology; the issue of whether value-relevant and outcome-relevant involvement are actually separate constructs. While the results of the current research were inconclusive, the approach taken to resolve this issue, testing for differential effects in a correlational experiment, establishes a methodology by which this issue can be more conclusively resolved in future studies.

A final contribution of the current research was it was the first to examine the involvement-evoked set size relationship using a product category that features wide variations in the price and quality

of the purchase alternatives . Previously, Campbell (1968) had used the product categories of toothpaste and detergent, while Jarvis and Wilcox (1973) used coffee, napkins and detergent. All of these categories are characterized by relative homogeneity in terms of the price and quality of alternatives. While Belonax and Javalgi (1989) actually used a fairly heterogeneous product category, microwave ovens, they homogenized it by limiting the choice alternatives to six and by not giving subjects price information.

Wide variability in price is considered to be an important factor for several reasons. First, most durables are characterized by large differences in price and quality, and thus this is important in terms of extending the generalizability of existing theory. Second, price/quality variability is thought to be a potential moderator of the involvement-evoked set size relationship. This is reasoned as follows; when high involvement subjects are allowed to select an evoked set from a choice domain that includes a number of higher priced/higher quality alternatives, their evoked sets are likely to be larger than average. This is because their high interest in the product is likely to make them less price sensitive, and more willing to consider paying a higher price to get higher quality. If the choice domain is fairly homogeneous in terms of price and quality, then high involvement consumers are likely to have smaller than average evoked sets since few alternatives will be able to meet their more stringent standards .

MANAGERIAL IMPLICATIONS

The main managerial implications to come out of the current research are centered around the findings regarding the effects of value-relevant involvement on shopping enthusiasm, lattitudes of acceptance and evoked set size. These findings indicate that marketers may need to develop special strategies to sell to enthusiastic/value-relevant involved shoppers, because they may approach the shopping process much differently than other types of consumers.

The first implication deals with the finding that value-relevant involvement has a positive effect on evoked set size. This finding contradicts the previous research which had indicated that involvement negatively effects evoked set size. The negative relationship had been explained by reasoning that the highly involved customer is more demanding (narrower lattitudes of acceptance), and thus tends to find fewer brands worthy of consideration. The problem with this reasoning is that it indicates small evoked sets result from an inadequate retail selection, not because the high involvement consumer actually wishes to reduce his or her choice options.

In the current research, high value-relevant involvement consumers were given the opportunity to consider a large number of models including many higher priced/higher performance brands. The result was that the value-relevant involved subjects were more likely to consider these high end models and thus tended to have

larger overall evoked sets. Thus the results of the current research indicate that even though consumers with value-relevant involvement, tend to be more selective, they still tend to have larger evoked sets because they are more willing to consider higher priced brands.

The managerial implication of this finding for retailers is that specialty retailers who cater to the value-relevant involved customer might do better by concentrating on carrying a good selection of high performance models from a variety of different manufacturers, rather than carrying the full product lines of a limited number of manufacturers. For manufacturers the implication is that for value-relevant involved customers, performance/quality is a more important determinant of evoked set composition than price (although price may play a role in deciding which model in the evoked set eventually gets purchased). For consumers with low value-relevant involvement price is more likely to be an important determinant of evoked set composition and thus identifying the appropriate reference prices and price thresholds is critical if the manufacturer is going to get this group to seriously consider its products.

A second managerial implication to arise from the research is the need for marketers to consider the effects of shopping enthusiasm on the shopping process. Enthusiastic shoppers are unlikely to want the process to be simplified for them, and thus would likely favor stores with a large number of alternatives available for their consideration. Large superstores would likely appeal to this group

provided they carry a sufficient amount of high quality merchandise. For small retailers, attracting such consumers might require a strategy of concentrated depth rather than superficial breadth. In other words they would likely be better off concentrating their product offerings in specific sub-categories of the market rather than providing minimal coverage of the entire product category. For example a small record shop would probably do better if they had an extensive inventory of jazz records than if they only had the top sellers across several musical genres.

Unenthusiastic shoppers on the other hand are more likely to want to want the process simplified for them. As a result, retailers who make things easy for these customers are more likely to get their business. For example many car dealers are simplifying the process of car shopping by going to a one price system. This has great appeal to the unenthusiastic car shoppers who do not enjoy negotiating prices. Home shopping networks on cable TV have made the process very easy for those who do not like to shop for products like clothing, jewelry and home electronics. Selection is very limited, but this actually makes the decision process much easier (particularly since most have liberal return policies). Thus selection seems to be less important to these shoppers than the promise of getting a satisfactory purchase outcome, with a minimum of effort.

Personal selling is one way larger retailers can simplify the process for unenthusiastic shoppers. These customers may be

intimidated by the large selections of superstores, and thus would likely welcome the advice of a salesperson to help them select an evoked set. The role of a salesperson in this context would be to determine the customer's needs and then find a set of alternatives that meet their requirements and from which they can make a satisfactory final purchase choice.

RESEARCH LIMITATIONS

The first limitation in the research was that only one product class was examined, therefore it is possible that the results found are idiosyncratic to car stereos. There is no guarantee that the relationships between variables that were observed in this study would hold true for a different product category.

A second limitation was the use of students as subjects. Such subjects were used because their high degree of homogeneity was considered to be desirable due to its positive effects on statistical power and internal validity. However by relying totally on the responses of student subjects the external validity of the findings are limited.

A third limitation of the current research is that subjects were not actual buyers of car stereos and thus the purchase scenario may have been too contrived and artificial. It was hoped however that the use of an incentive drawing may have increased the realness of the experimental situation by providing subjects with a context in which

they might actually become a buyer. However it is recognized that a paper and pencil simulation of a purchase situation will not be isomorphic with actual purchasing behavior.

A final limitation was the weakness of the outcome-relevant involvement manipulation. While variation was still achieved on this variable, it is felt that much of this came from a suspected antecedent, value-relevant involvement. As a result the effects that outcome-relevant involvement has on the shopping process that are independent of value-relevant involvement may not have been adequately introduced into the study.

SUGGESTIONS FOR FUTURE RESEARCH

Based on the last limitation listed above, it is felt that the best way to extend the current research would be to replicate the experiment with treatments that would more effectively manipulate outcome-relevant involvement. It is felt that the best way to do this would be to put subjects in high and low involvement purchase situations rather than trying to manipulate their involvement by using incentives. One way the outcome-relevant involvement of a purchase situation could be varied is by manipulating the perceived visibility of the purchase outcome.

Another area for future research might be directly testing to see if price variability has a moderating effect on evoked set size. One of the findings of the current research was that value-involved

customers appeared to be less price conscious in the formation of their evoked sets. This could be more directly tested by making the price variability of the choice domain one of the factors in a similar experiment.

Another suggestion for future research would be to compare the relative effects of the two types of involvement on purchase decisions in different kinds of product categories. For example it might be hypothesized that value-relevant involvement has a greater influence on the decision making process for purchases of highly experiential products like movies, music, and computer games, than outcome-relevant involvement. On the other hand, outcome-relevant involvement might have more influence on purchases of instrumental products like tools, appliances and computer hardware. By comparing their relative effects across product categories the potential moderating effect of product type on the involvement-evoked set relationship can be addressed.

APPENDICES

APPENDIX A:
INSTRUCTIONS FOR HIGH OUTCOME RELEVANT INVOLVEMENT CONDITION

Thank you for your participation in this research study. The purpose of this study is to collect data on consumer preferences regarding car stereos. This data will be used by a Michigan based home electronics retailer to help them decide what models of car stereo they should carry in their stores. Because this data is being used to help make important business decisions, it is critical that you answer all questions as realistically and truthfully as possible. You have been selected as part of a limited sample and thus your opinions are likely to have a great deal of influence on these decisions.

The primary task you will be asked to perform as part of your participation in this research will be to evaluate the acceptability, to you, of 28 different models of car stereo. To assist you in making these determinations you have been provided with the accompanying Product and Attribute Information Booklet. This booklet consists of two types of information: descriptions of different attributes that you might use to evaluate car stereos, and ratings showing how each of the 28 models of car stereo you are to consider rates on each of these attributes. After looking over this information booklet, you will be asked to identify which of the 28 different models you would consider for purchase. You may select as many or as few as you like.

In exchange for your participation in this research your name will be placed, along with the names of the other participants, into a drawing for three $100 car stereo gift certificates. These gift certificates may be used toward the purchase a new car stereo at the home electronic stores that is sponsoring this research. The models of car stereo you will be asked to evaluate represent all the models that are carried by this retailer, and thus represent the only models you can redeem your gift certificate on should you win. You may redeem your certificate on any of the 28 models of car stereo carried by the retailer however you will be responsible for paying (or financing) any amount over $100.

One of the primary purposes of the incentive drawing is to motivate you to perform the product evaluations in a manner similar to what you would do in an actual purchase situation. You are encouraged to give serious and thoughtful consideration to your evaluations of the 28 models of car stereo since you might want to

actually use these evaluations to help you select a car stereo in the event you do win one of the gift certificates.

Because of the importance of this research it is hoped that you will evaluate the different models of car stereo as realistically and as carefully as you would if you were actually making such a purchase decision. The only way this retailer can obtain accurate information on your preferences is for you to treat the simulated purchase situation as being real as possible and to give responses that reflect the decisions you would make if you were actually shopping for a car stereo.

APPENDIX B:
INSTRUCTIONS FOR LOW OUTCOME RELEVANT INVOLVEMENT CONDITION

Thank you for your participation in this research study. The purpose of this study is to collect data on consumer preferences regarding car stereos for a Michigan based home electronics retailer. In particular we are interested in what type of car stereo college students are interested in buying.

The primary task you will be asked to perform as part of your participation in this research will be to evaluate the acceptability, to you, of 28 different models of car stereo. To assist you in making these determinations you have been provided with the accompanying Product and Attribute Information Booklet. This booklet consists of two types of information: descriptions of different attributes that you might use to evaluate car stereos, and ratings showing how each of the 28 models of car stereo you are to consider rates on each of these attributes. After looking over this information booklet, you will be asked to identify which of the 28 different models you would consider for purchase. You may select as many or as few as you like.

In exchange for your participation in this research your name will be placed, along with the names of the other participants, into a drawing for three $100 cash prizes.

Please evaluate the different models of car stereo as realistically and as carefully as you would if you were actually making such a purchase decision since this is the only way we can obtain accurate information on your preferences.

APPENDIX C:
PRETEST QUESTIONNAIRE

QUESTIONNAIRE 1
CAR STEREO RESEARCH STUDY
Department Of Marketing And Hospitality Services Administration
Central Michigan University

1. Are You : 1. ____ male 2. _____female

I. For each car stereo manufacturer listed below please circle the response that best represents your degree of familiarity with that manufacturer.

	DEFINITELY FAMILIAR	SOMEWHAT FAMILIAR	UNFAMILIAR
2. CLARION	1	2	3
3. JVC	1	2	3
4. FUTURA	1	2	3
5. BLAUPUNKT	1	2	3
6. KENWOOD	1	2	3
7. PIONEER	1	2	3
8. SANYO	1	2	3
9. SHERWOOD	1	2	3
10. PARRALLAX	1	2	3
11. SONY	1	2	3
12. ALPINE	1	2	3
13. ACUVOLT	1	2	3
14. JENSEN	1	2	3
15. PANASONIC	1	2	3
16. TANAKA	1	2	3
17. AUDIOVOX	1	2	3
18. CRAIG	1	2	3
19. MOWEN	1	2	3
20. KRACO	1	2	3
21. AIWA	1	2	3
22. WOLFE	1	2	3
23. DENON	1	2	3
24. TARGA	1	2	3
25. FULTRON	1	2	3

26. OMEGA	1	2	3
27. NAKAMICHI	1	2	3
28. SENTREK	1	2	3

II. The purpose of this next set of questions is to measure your interest or involvement with the product category of car stereos. To take this measure we need you to judge car stereos against a series of descriptive items according to how YOU perceive car stereos. Please circle the response that best represents your true feelings about car stereos.

Important
1. Be sure that you respond to every item, please do not omit any.
2. Please do not circle more than one response on any single item..

Make each item a separate and independent judgment. Work at a fairly high speed through this set of questions. Do not worry or puzzle over individual items. It is your first impressions, the immediate feelings that we want. On the other hand, please do not be careless, because we want your true impressions.

CAR STEREOS...

29. Boring To Me	1	2	3	4	5	6	7	Interesting To Me
30. Exciting To Me	1	2	3	4	5	6	7	Unexciting To Me
31. Appealing To Me	1	2	3	4	5	6	7	Unappealing To Me
32. Fascinating To Me	1	2	3	4	5	6	7	Mundane To Me
33. Involving To Me	1	2	3	4	5	6	7	Uninvolving To Me
34. Important To Me	1	2	3	4	5	6	7	Unimportant To Me
35. Relevant To Me	1	2	3	4	5	6	7	Irrelevant To Me
36. Worthless To Me	1	2	3	4	5	6	7	Valuable To Me
37. Means Nothing To Me	1	2	3	4	5	6	7	Means A Lot To Me
38. Not Needed By Me	1	2	3	4	5	6	7	Needed By Me

III. Following are a series of items regarding your attitudes toward car stereos. For each item please indicate whether you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with the statement. There are no right or wrong answers: we only want to know what you think.

	strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
39. I could talk about car stereos for a long time.	1	2	3	4	5
40. I am interested in car stereos.	1	2	3	4	5
41. I definitely have a "wanting" for a new car stereo.	1	2	3	4	5

	strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
42. I rate car stereos as being of the highest importance to me personally.	1	2	3	4	5
43. A new car stereo would help to define and express the "I" and "me" within myself.	1	2	3	4	5
44. Because of my personal values, I feel that car stereos is a product that ought to be important to me.	1	2	3	4	5
45. Car stereos offer me relaxation and fun when life's pressures build up.	1	2	3	4	5
46. Car stereos are nothing more than appliances.	1	2	3	4	5
47. Listening to music is one way I often use to relieve daily pressures .	1	2	3	4	5
48. I get bored when other people talk to me about their car stereos.	1	2	3	4	5
49. I have little or no interest in music.	1	2	3	4	5
50. I enjoy talking about car stereo equipment with my friends.	1	2	3	4	5
51. It is natural that young people become interested in car stereos.	1	2	3	4	5
52. I do not pay much attention to advertisements for car stereo equipment.	1	2	3	4	5
53. It is worth the extra cost to own a car stereo that is attention getting.	1	2	3	4	5
54. I would not like to think of my car stereo equipment as being ordinary.	1	2	3	4	5

	strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
55. I prefer to own a car stereo with a strong personality of its own.	1	2	3	4	5

IV. The following questions are designed to assess how much you know about car stereos. For each question circle the response that you think is correct.

56. Which of the following specifications indicates the ability of a tape deck to reproduce the audible range.
a. tape deck quieting
b. tape deck frequency response
c. tape deck signal to noise ratio
d. tape deck sensitivity

57. Which of the following specifications indicates the ability of an FM receiver to pick up weak broadcast signals and stations from far away markets.
a. FM quieting
b. FM frequency response
c. FM signal to noise ratio
d. FM sensitivity

58. Which of the following specifications indicates the amount of background noise being produced by a car stereo's tape deck?
a. tape deck wow and flutter
b. tape deck frequency response
c. tape deck signal to noise ratio
d. tape deck quieting

59. Which of the following specifications indicates the accuracy of a tape deck's playback speed and indicate the consistency of the playback mechanism.
a. tape deck wow and flutter
b. tape deck frequency response
c. tape deck signal to noise ratio
d. tape deck quieting

60. Which of the following specifications is used to indicate how strong an FM signal must be to provide noise free reception.
a. FM quieting
b. FM frequency response
c. FM signal to noise ratio
d. FM sensitivity

61. Which of the following specifications indicates how loud a car stereo can be played.
a. power
b. wow and flutter
c. sensitivity
d. frequency response

62. Which feature gives you the ability to select the correct setting for playing back metal or chromium dioxide tapes.

a. music search
b. adjustable bias control
c. Dolby noise reduction
d. radio/tape switch

63. Which feature gives you the ability to virtually eliminate background noise during playback of tapes.

a. music search
b. adjustable bias control
c. Dolby noise reduction
d. separate bass and treble controls
e. radio/tape switch

64. Which car stereo feature gives the listener the ability to listen to the radio while rewinding or fast forwarding a tape?

a. music search
b. adjustable bias control
c. separate bass and treble controls
d. radio/tape switch

65. Which car stereo feature gives the listener the ability automatically fast forward or rewind to the beginning of the next song on a tape, at the touch of a button.

a. music search
b. adjustable bias control
c. separate bass and treble controls
d. radio/tape switch

V. For the next two questions please circle the response that best represents your opinion regarding the amount of knowledge you feel you have regarding car stereos. There are no right or wrong answers: we only want you to answer the questions as truthfully as you can.

66. Rate your knowledge of car stereos as compared to the average person. I am ....

one of the LEAST knowledgeable people	1	2	3	4	5	6	7	one of the MOST knowledgeable people

67. Circle one of the numbers below to describe your familiarity with car stereos.

not at all familiar	1	2	3	4	5	6	7	extremely familiar

IV. For the next two questions please circle the response that best represents your opinion. There are no right or wrong answers: we only want you to answer the questions as truthfully as you can.

	very likely	likely	unlikely	very unlikely
68. How likely do you think it is that you will purchase a car stereo within the next three years?	1	2	3	4
69. Assuming you could afford to buy a new car stereo now, how likely do you think it is that you would purchase one.	very likely 1	likely 2	unlikely 3	very unlikely 4

APPENDIX D:
PRODUCT AND ATTRIBUTE INFORMATION BOOKLET

PART 1: ATTRIBUTE DESCRIPTIONS

There are two types of attributes listed below: specifications and product features. Specifications are statistics or measurements that indicate how good or bad a particular car stereo performs in specific areas. Taken together these specifications indicate the overall level of sound quality a car stereo is capable of providing. Product features are car stereo functions or options which are either present or absent from a particular model of car stereo. These features may enhance audio performance, make the unit easier to use, or provide additional benefits.

A. SPECIFICATIONS - indicators of car stereo performance

1. POWER - Power gives you **the ability to play music at a higher volume level without unpleasant distortion.** For a basic system, a low power (3-4 watts) car stereo unit will produce good results, if efficient speakers are used. A high power (10-15 watts) unit may be needed if you want to play music very loud, want extra bass, or want to drive larger or inefficient speakers. If you select a low power car stereo unit the power can always be upgraded by hooking it up to an external amplifier.

2. AM SENSITIVITY - AM sensitivity indicates **the ability of a receiver to pick up AM stations with weak signals.** Thus this is the primary indicator of the strength of the AM receiver and is most important to people who want to pick up weak stations or who live in fringe areas away from broadcast signals.

3. FM SENSITIVITY - FM sensitivity indicates **the ability of a receiver to pick up FM stations with weak signals.** Thus this is the primary indicator of the strength of the FM receiver and is most important to people who want to pick up weak stations or who live in fringe areas away from broadcast signals.

4. FM QUIETING - FM quieting indicates how strong the FM signal has to be for the receiver to provide clear noise-free reception. Thus this is the **primary indicator of the clarity of the FM reception.**

5. FM STEREO SEPARATION - Stereo separation indicates **the ability of a receiver to separate the left and right channels of a stereo broadcast.** Thus this is the **primary indicator of the quality (or fidelity) of the FM stereo sound.**

6. TAPE DECK FREQUENCY RESPONSE - The frequency response indicates **the ability of a tape deck to reproduce the audible range** (from 20 to 20,000 hertz for the average human ear). The wider the range of sound a tape deck is able to reproduce the greater the sound fidelity. Thus this is **the primary indicator of the capability of a tape deck to reproduce high quality sound.**

7. TAPE DECK WOW AND FLUTTER - Wow and flutter is **the accuracy of a tape deck's playback speed.** Wow is distortion caused by low-frequency speed fluctuation. Flutter is caused by high-frequency speed changes. The less wow and flutter the more precise the playback mechanism is. Thus this is the **primary indicator of the consistency of the sound produced by the tape deck.**

8. TAPE DECK SIGNAL TO NOISE RATIO - The signal to noise ratio tells you **how much background noise is being produced** by comparing the strength of the desired signal (music) to the

level of the background noise. The bigger this ratio the less background noise is audible. Thus this is the **primary indicator of the amount of audible distortion produced during tape playback.**

B. PRODUCT FEATURES - optional functions that add to the utility of a car stereo

1. SEPARATE BASS AND TREBLE CONTROLS - separate controls for bass and treble provide greater control over the sound than can be obtained with a single tone control.

2. ANTI-THEFT PROTECTION - this helps to prevent your car stereo from being stolen from an unattended car. There are three types of anti theft protection currently available:

a. **Security Code** - This requires the correct entry of a code number into the car stereo unit to enable it to play. This also features a flashing LED message to warn thieves that the receiver is code protected.

b. **Removable Chassis** - This allows you to remove the entire car stereo unit and carry it off with you when you leave the car.

c. **Detachable Face** - This feature allows you to remove the face or the control panel of the car stereo unit and carry it off with you when you leave the car.
The rest of the unit is rendered worthless without the control face, and thus not of any value to thieves.

Comparative Rankings Of The Three Theft Protection Systems
1=best to 3=worst

Theft Protection System	Cost	Level Of Theft Protection	Ease Of Use
security code	1*	3	1
removable chassis	2	1	3
detachable face	3	2	2

*** 1 = cheapest system**

3. CD CHANGER CONTROLS - this offers dual function controls which will allow one to directly hook up and operate a compatible multiple-CD changer through the base unit. While CD changers can still be hooked up to car stereo units without this feature, doing so requires the purchase of additional equipment (such as a CD/FM tuner interface, a CD remote control pad, and a CD antenna) to make it compatible and the frequency response is not as high.

4. AUTO MUSIC SEARCH - the ability to automatically fast forward or rewind the tape to the next song, at the touch of a button. This is done through a mechanism that locates the silent gap between songs.

5. RADIO/TAPE SWITCH - this allows you to change from playing the tuner to playing a tape with the touch of a button. The primary advantage of this feature is that enables you to listen to the radio while rewinding or fast-forwarding a tape.

6. POWER OFF EJECT - this automatically ejects a tape from the car stereo unit whenever power is shut off to the unit. This protects both the tape and the mechanism by releasing tension.

7. ADJUSTABLE BIAS CONTROL - this gives you the ability to playback high bias tapes. High bias tapes (Type II and IV) have the potential to deliver a wider dynamic range with less distortion than standard Type I tapes, if proper techniques were used to record the music.

8. DOLBY NOISE REDUCTION - this system decodes Dolby encoded tapes during playback to virtually eliminate background noise (i.e. tape hiss). The noise reduction will only work on tapes encoded with Dolby during recording. Dolby B is the most widely used system, but the newer Dolby C is generally considered to be more effective.

PART 2: PRODUCT RATINGS

Listed below are profiles of the 28 different brands of car stereo you are to consider. The brands are listed in order of price. The prices reflect typical selling prices at the sponsor's retail outlets. The specifications are presented in the form of ratings. These ratings are on a 1 to 7 scale, with 1 indicating well above average performance on that specification, 4 indicating average performance, and 7 indicating well below average performance. In terms of features "y "indicates that a particular model of car stereo has a feature, "n" indicates the feature is not present. In terms of anti-theft protection, code signifies security code, chassis signifies removable chassis, and face signifies detachable face.

	1. Clarion S5200	2. JVC KSR125	3. Sanyo MAR1000	4. Pioneer KE2828
price	99	99	99	129
SPECIFICATION RATINGS 1-well above average 7-well below average				
power	7	7	7	7
AM sensitivity	4	5	7	4
FM sensitivity	4	6	7	3
FM separation	4	6	7	1
FM quieting	4	6	6	3
tape frequency response	4	7	3	6
tape wow & flutter	3	4	4	5
tape signal/noise ratio	6	7	5	7
PRODUCT FEATURES				
separate treble and bass	n	n	n	n
anti-theft	n	n	n	n
CD-changer controls	n	n	n	n
tape music search	n	n	n	n
radio/tape switch	n	n	n	n
adjustable bias control	n	n	n	n
dolby noise reduction	n	n	n	n

PRODUCT RATINGS (CONTINUED)

	5. JVC KSR470	6. Kenwood KRC1005	7. Sanyo MAR120	8. Sherwood XR4127
price	149	149	149	159
SPECIFICATION RATINGS 1-well above average 7-well below average				
power	3	6	4	1
AM sensitivity	4	4	5	6
FM sensitivity	6	5	6	4
FM separation	6	2	6	1
FM quieting	6	2	6	7
tape frequency response	7	4	6	2
tape wow & flutter	4	4	3	2
tape signal/noise ratio	7	6	4	6
PRODUCT FEATURES				
separate treble and bass	y	y	y	y
anti-theft	n	n	n	n
CD-changer controls	n	n	y	n
tape music search	y	n	n	y
radio/tape switch	n	n	y	n
adjustable bias control	n	y	n	y
dolby noise reduction	n	n	y	n

	9. Audiovox AV238	10. Blauplunkt Newport	11. Fultron 8000	12. Pioneer KE3700QR
price	159	169	199	229
SPECIFICATION RATINGS 1-well above average 7-well below average				
power	2	6	2	4
AM sensitivity	4	4	6	3
FM sensitivity	4	4	6	3
FM separation	4	6	5	1
FM quieting	3	2	6	3
tape frequency response	5	4	5	4
tape wow & flutter	5	4	2	5
tape signal/noise ratio	5	5	2	3
PRODUCT FEATURES				
separate treble and bass	y	y	y	y
anti-theft*	y (code)	y (code)	n	y (chassis)
CD-changer controls	y	n	n	n
tape music search	y	y	n	y
radio/tape switch	n	n	n	n
adjustable bias control	y	y	y	y
dolby noise reduction	y	n	n	y

PRODUCT RATINGS (CONTINUED)

	13. Clarion 9772RT	14. Blauplunkt Boston	15. Blauplunkt Louisville	16. Pioneer KEHM5500
price	229	249	269	289
SPECIFICATION RATINGS 1-well above average 7-well below average				
power	4	3	3	3
AM sensitivity	3	3	3	3
FM sensitivity	4	4	4	3
FM separation	4	6	6	1
FM quieting	4	2	2	3
tape frequency response	2	4	4	5
tape wow & flutter	3	4	3	5
tape signal/noise ratio	3	3	3	7
PRODUCT FEATURES				
separate treble and bass	y	y	y	y
anti-theft*	y (chassis)	y (code)	y (code)	y (face)
CD-changer controls	n	n	y	y
tape music search	y	y	y	y
radio/tape switch	y	y	y	y
adjustable bias control	y	y	y	y
dolby noise reduction	y	y	y	y

	17. Kenwood KRC-540	18. Sony XRU-220	19. Clarion 3670RC	20. Pioneer KEHM7200
price	299	299	299	349
SPECIFICATION RATINGS 1-well above average 7-well below average				
power	1	2	2	3
AM sensitivity	2	3	2	2
FM sensitivity	4	4	4	3
FM separation	1	4	4	1
FM quieting	2	3	4	3
tape frequency response	3	2	2	3
tape wow & flutter	4	5	3	5
tape signal/noise ratio	6	6	2	3
PRODUCT FEATURES				
separate treble and bass	y	y	y	y
anti-theft*	y (chassis)	y (face)	y (chassis)	y (face)
CD-changer controls	y	y	y	y
tape music search	n	n	y	y
radio/tape switch	n	y	y	y
adjustable bias control	y	n	y	y
dolby noise reduction	n	n	y	y

PRODUCT RATINGS (CONTINUED)

	21. JVC KSR470	22. Nakamichi XRU550	23. Kenwood KRC-740	24. Targa Q700
price	349	369	389	399
SPECIFICATION RATINGS 1-well above average 7-well below average				
power	2	1	1	1
AM sensitivity	2	3	2	4
FM sensitivity	4	4	4	1
FM separation	4	4	1	4
FM quieting	3	3	2	1
tape frequency response	2	2	4	2
tape wow & flutter	2	2	4	2
tape signal/noise ratio	4	1	2	2
PRODUCT FEATURES				
separate treble and bass	y	y	y	y
anti-theft*	y (face)	y (chassis)	y (face)	n
CD-changer controls	y	y	y	n
tape music search	y	n	y	y
radio/tape switch	y	n	y	n
adjustable bias control	y	y	y	y
dolby noise reduction	y	y	y	y

	25. Sony XRU-550	26. Pioneer KEHM8200	27. Sony XRU770	28. Kenwood KRC940
price	449	449	499	529
SPECIFICATION RATINGS 1-well above average 7-well below average				
power	2	3	1	1
AM sensitivity	3	3	2	2
FM sensitivity	4	3	1	4
FM separation	4	1	4	1
FM quieting	3	3	3	2
tape frequency response	2	2	1	1
tape wow & flutter	2	1	2	1
tape signal/noise ratio	1	1	1	1
PRODUCT FEATURES				
separate treble and bass	y	y	y	y
anti-theft*	y (face)	y (face)	y (face)	y (face)
CD-changer controls	y	y	y	y
tape music search	y	y	y	y
radio/tape switch	y	y	y	y
adjustable bias control	y	y	y	y
dolby noise reduction	y	y	y	y

APPENDIX E:
EVALUATION TASK QUESTIONNAIRE

QUESTIONNAIRE 2
CAR STEREO RESEARCH STUDY
Department Of Marketing And Hospitality Services Administration
Central Michigan University

PART 1
Assume you are in the market for a car stereo and have to decide which models of car stereo you would like to give serious consideration for purchase. In order to make such determinations the first thing you will need to decide is what exactly it is you want from a car stereo. This entails determining which product attributes are relevant to your needs in a car stereo.

In **Part 1** of the **Product and Attribute Information Booklet**, there are detailed descriptions of the different attributes. Please look over this information and use it to help answer the following sets of questions (A, B, and C).

A. DETERMINATION OF RELEVANT ATTRIBUTES
For each car stereo attribute below please indicate whether or not it is something you would use to evaluate the acceptability of different models of car stereo. If you are not sure what an attribute is refer back to the descriptions in **Part 1** of the **Product and Attribute Information Booklet**.

	I will use this attribute to evaluate car stereos	**I will not use this attribute to evaluate car stereos**
SPECIFICATIONS		
1. Price	1	2
2. Power	1	2
3. Am Reception	1	2
4. Fm Sensitivity	1	2
5. Fm Stereo Separation	1	2
6. Fm Quieting	1	2
7. Tape Frequency Response	1	2
8. Tape Wow And Flutter	1	2
9. Tape Signal To Noise Ratio	1	2
FEATURES		
10. Separate Treble & Bass	1	2
11. Anti-Theft	1	2
12. Cd-Changer Controls	1	2
13. Tape Music Search	1	2
14. Radio/Tape Switch	1	2
15. Adjustable Bias Control	1	2

16. Dolby Noise Reduction 1 2

B. PRODUCT FEATURE REQUIREMENTS

For each car stereo feature listed below indicate which of the seven responses most closely corresponds to your view of the role that feature will play in your evaluations of different models of car stereos. Keep in mind that each of these features adds to the cost of a car stereo and thus should be evaluated in terms of your willingness to pay a little extra to get the feature. If you indicated above that you are not going to consider a feature, please circle response 4. Please circle only one response.

RESPONSES

1. I will not consider car stereo models that do not have this feature.
2. I will be unlikely to consider car stereo models that do not have this feature.
3. I will consider car stereo models that do not have this feature, although I prefer that they have it.
4. I will not consider this feature when making evaluations of car stereo models.
5. I will consider car stereos that have this feature, although I prefer that do not have it..
6. I will be unlikely to consider car stereos that have this feature.
7. I will only consider car stereos models that do not have this feature.

CAR STEREO FEATURES	RESPONSES						
17. Separate Treble & Bass	1	2	3	4	5	6	7
18. Anti-Theft	1	2	3	4	5	6	7
19. Cd-Changer Controls	1	2	3	4	5	6	7
20. Tape Music Search	1	2	3	4	5	6	7
21. Radio/Tape Switch	1	2	3	4	5	6	7
22. Adjustable Bias Control	1	2	3	4	5	6	7
23. Power Off Eject	1	2	3	4	5	6	7
24. Dolby Noise Reduction	1	2	3	4	5	6	7
Anti-Theft Protection Systems							
25. security code	1	2	3	4	5	6	7
26. removable chassis	1	2	3	4	5	6	7
27. detachable face	1	2	3	4	5	6	7

C. PRODUCT SPECIFICATION REQUIREMENTS

Please indicate what is the minimum performance rating a car stereo model could have on the following specifications without automatically being rejected from consideration for purchase. This minimum rating should indicate the lowest level of performance you would be willing to tolerate on a particular attribute. This means that if a particular model of car stereo falls below your minimum rating on this specification it would automatically be eliminated from consideration regardless of how well it performed on all other evaluative criteria. Please keep in mind that higher ratings are generally associated with higher priced models which tend to have more sophisticated technological designs. Thus if you demand higher performance expect to pay for it. If you indicated in part A. that you are not going to consider a specification, please circle response 7. Only circle one response per specification.

28. POWER

well above average 1 2 3 4 5 6 7 well below average

29. AM RECEPTION

well above average 1 2 3 4 5 6 7 well below average

30. TAPE FREQUENCY RESPONSE

well above average 1 2 3 4 5 6 7 well below average

31. FM SENSITIVITY

well above average 1 2 3 4 5 6 7 well below average

32. FM STEREO SEPARATION

well above average 1 2 3 4 5 6 7 well below average

33. FM QUIETING

well above average 1 2 3 4 5 6 7 well below average

34. TAPE WOW AND FLUTTER

well above average 1 2 3 4 5 6 7 well below average

35. TAPE SIGNAL TO NOISE RATIO

well above average 1 2 3 4 5 6 7 well below average

For the attribute of price please circle the number that most accurately reflects or is the closest to the maximum price you would pay for a car stereo. This price should be one such that no matter how impressive a particular model of car stereo is, you would not even consider purchasing it if it has a price above this upper limit.

36. PRICE 100 150 200 250 300 350 400 450

PART 2:
This section seeks to uncover your attitudes toward the process of shopping for a car stereo. Car stereo shopping generally entails such activities as gathering car stereo information from magazines, talking to knowledgeable friends, and visiting car stereo retailers so that you can listen to different models, demonstrate their features and obtain pricing information. Such activities are generally performed in order to give the buyer enough information to make a satisfactory purchase decision.

A. Following are a series of items which seek to assess your perceptions about the amount risk there is in a car stereo purchase decision. For each item listed below please indicate which of the seven responses most closely corresponds to your view. There are no right or wrong answers: we only want to know what you think.

Financial risk

37. What are the chances that you would pay too much money for a car stereo, if you were to make an uninformed purchase decision?

    low financial risk 1 2 3 4 5 6 7 high financial risk

38. If this financial loss happened to you, it would be:

    unimportant 1 2 3 4 5 6 7 important

Performance risk

39. What are the chances that the car stereo model you select will not work properly if you were to make an uninformed purchase decision?

    low performance risk 1 2 3 4 5 6 7 high performance risk

40. If this performance loss happened to you, it would be:

    unimportant 1 2 3 4 5 6 7 important

Psychological risk

41. What are the chances that the model of car stereo you select will not fit in well with your self-image (i.e. the way you think about yourself) if you make an uninformed purchase decision.

    low psychological risk 1 2 3 4 5 6 7 high psychological risk

42. If this psychological loss happened to you, it would be:

    unimportant 1 2 3 4 5 6 7 important .

Social risk

43. What are the chances that the model of car stereo you select will have a negative effect on the way others think about you if you make an uninformed purchase decision?

low social risk 1 2 3 4 5 6 7 high social risk

44. If this social loss happened to you, it would be

unimportant 1 2 3 4 5 6 7 important

Overall perceived risk

45. On the whole, considering all sorts of factors combined, about how risky would you say it is to make an uninformed car stereo purchase:

not risky at all 1 2 3 4 5 6 7 extremely risky

B. Following are a series of items regarding how much involvement you would have with the task of selecting and purchasing a car stereo. For each item please indicate whether you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with the statement.

	strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
46. In regards to the purchase decision on which car stereo to buy, the choice I make is of little consequence.	1	2	3	4	5
47. For a car stereo purchase, I would probably spend a lot of time and effort making my purchase decision, since it is important to get the best deal.	1	2	3	4	5
48. It would be important to me to be aware of all the alternatives before buying a car stereo.	1	2	3	4	5
49. It is part of my value system to shop around for the best price.	1	2	3	4	5
50. In regards to a car stereo purchase, it wouldn't make much difference which brand I choose.	1	2	3	4	5
51. It is not worth it to read what **Consumer Reports** says about car stereos since most brands are about the same.	1	2	3	4	5

	strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
52. I am willing to spend extra time shopping in order to get the cheapest possible price on the car stereo model I decide I want.	1	2	3	4	5
53. I won't worry so much about getting the best deal when I make a car stereo purchase, I will just spend the money as I please.	1	2	3	4	5
54. Because of my personal values I feel that making a "smart car stereo purchase" ought to be important to me.	1	2	3	4	5
55. I feel very confident in my ability to make a good decision regarding which model of car stereo to buy.	1	2	3	4	5

PART 3

The next two series of questions are designed to assess your feelings about the process of shopping for a car stereo. This process might entail visiting different car stereo retailers and doing such things as listening to demonstration models, getting information from salesmen and obtaining price information.

A. For the next two questions please circle the responses that best represent your opinions about the process of shopping for a car stereo. There are no right or wrong answers: we only want you to answer the questions as truthfully as you can.

56. In comparison to how much I like to shop for all other products, I anticipate that a car stereo would be....

one of the products I would most enjoy shopping for	1	2	3	4	5	6	7	one of the products I would least enjoy shopping for

57. In comparison to all other tasks and activities that I perform, I anticipate that shopping for a car stereo would be....

very much like a leisure activity	1	2	3	4	5	6	7	very much like a task or a chore

B. Below are a series of items asking you to give your opinions regarding how you would feel about the process of shopping for a car stereo. For each item please indicate whether you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with the statement.

	strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
I would emjoy the process of car stereo shopping for its own sake, not just for any benefits it will get me.	1	2	3	4	5
59. Shopping for a car stereo would be an activity I would find to be intrinsically rewarding.	1	2	3	4	5
60. "Not because I have to but I want to" would characterize my reasons for car stereo shopping.	1	2	3	4	5
61. The car stereo shopping process would satisfy my sense of curiosity.	1	2	3	4	5
62. The car stereo shopping process would offer novel experiences.	1	2	3	4	5
63. Car stereo shopping would be an activity that would totally absorb me.	1	2	3	4	5
64. Car stereo shopping is an activity I feel obligated to perform before making a stereo purchase.	1	2	3	4	5
65. Car stereo shopping is an activity I would be enthusiastic about performing.	1	2	3	4	5
66. I think that car stereo shopping would be a very stressful experience for me.	1	2	3	4	5
67. I think I would find car stereo shopping to be a very enjoyable activity.	1	2	3	4	5
68. I would prefer to have a knowledgeable person do my car stereo shopping for me.	1	2	3	4	5

	strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
69. I would rather just buy the car stereo rated highest by Consumer Reports, than try and make my own decision about what model to buy.	1	2	3	4	5

PART 4:

Please look over the product ratings of car stereos in **Part 2** of the **Product and Attribute Information** booklet. Please use this information to help you decide which models of car stereo might be appropriate for your needs. We realize that before you make a final purchase decision you would probably want to visit a stereo retailer and personally inspect models that seem appealing on paper. Additionally before making a final purchase decision you would need to find out which of these car stereos are compatible with your model of car. However with the information provided you can take the preliminary step of identifying which alternatives are either unacceptable, or unimpressive and which alternatives merit further consideration. Please keep in mind that the more brands of car stereo you consider for purchase, the more effort you will have to exert in the shopping process in order to make a final decision. With this in mind please indicate which of the following models of car stereo you would seriously consider for purchase based upon the product ratings provided.

	I would seriously consider this model	I would ***NOT*** seriously consider this model
1. Clarion S5200	1	2
2. JVC KSR125	1	2
3. Sanyo MAR1000	1	2
4. Pioneer KE2828	1	2
5. JVC KSR470	1	2
6. Kenwood KRC1005	1	2
7. Sanyo MAR1200	1	2
8. Sherwood XR4127	1	2
9. Audiovox AV238	1	2
10. Blauplunkt Newport	1	2
11. Fultron 8000	1	2
12. Pioneer KE3700QR	1	2
13. Clarion 9772RT	1	2
14. Blauplunkt Boston	1	2
15. Blauplunkt Louisville	1	2
16. Pioneer KEHM5500	1	2
17. Kenwood KRC540	1	2

	I would seriously consider this model	I would *NOT* seriously consider this model
18. Sony XRU220	1	2
19. Clarion 3670RC	1	2
20. Pioneer KEHM7200	1	2
21. JVC KSRG8	1	2
22. Nakamichi TD3/PP1	1	2
23. Kenwood KRC740	1	2
24. Targa Q7000	1	2
25. Sony XRU550	1	2
26. Pioneer KEHM8200	1	2
27. Sony XRU770	1	2
28. Kenwood KRC940	1	2

PART 5:

29. There are a variety of different methods that people use to determine whether purchase alternatives are worthy of serious consideration for purchase. In this research study you were asked to indicate which models of car stereo you would seriously consider if you were to make such a purchase. We are interested in knowing what method you used to make these determinations. Look through the descriptions of different decision making methods listed below and indicate which comes the closest to describing the method you used.

a. All brands that had **acceptable performance on all relevant attributes** were selected for consideration.

b. All brands that had **outstanding performance on any relevant attribute** were selected for consideration.

c. Brands that performed the **best on the most important attribute** were selected for consideration.

d. Brands that had the **best average performance across all relevant attributes** were selected for consideration. Relevant attributes were considered to be **roughly equal in terms of importance.**

e. Brands that had the **best average performance across all relevant attributes** were selected for consideration. Relevant attributes were **differentially weighted in terms of their importance.**

f. Some other method of decision making was used. Please describe your decision making method in the space below :

APPENDIX F:
POST-TEST QUESTIONNAIRE

QUESTIONNAIRE 3
CAR STEREO RESEARCH STUDY
Department Of Marketing And Hospitality Services Administration
Central Michigan University

The following questions are designed to assess how much you know about car stereos. For each question circle the response that you think is correct.

30. Which of the following specifications indicates the ability of a tape deck to reproduce the audible range.
a. tape deck quieting
b. tape deck frequency response
c. tape deck signal to noise ratio
d. tape deck sensitivity

31. Which of the following specifications indicates the ability of an FM receiver to pick up weak broadcast signals and stations from far away markets.
a. FM quieting
b. FM frequency response
c. FM signal to noise ratio
d. FM sensitivity

32. Which of the following specifications indicates the amount of background noise being produced by a car stereo's tape deck?
a. tape deck wow and flutter
b. tape deck frequency response
c. tape deck signal to noise ratio
d. tape deck quieting

33. Which of the following specifications indicates the accuracy of a tape deck's playback speed and indicate the consistency of the playback mechanism.
a. tape deck wow and flutter
b. tape deck frequency response
c. tape deck signal to noise ratio
d. tape deck quieting

34. Which of the following specifications is used to indicate how strong an FM signal must be to provide noise free reception.
a. FM quieting
b. FM frequency response
c. FM signal to noise ratio
d. FM sensitivity

35. Which of the following specifications indicates how loud a car stereo can be played.
a. power
b. wow and flutter
c. sensitivity
d. frequency response

36. Which feature gives you the ability to select the correct setting for playing back metal or chromium dioxide tapes.
a. music search
b. adjustable bias control
c. Dolby noise reduction
d. radio/tape switch

37. Which type of anti-theft protection offers the greatest ease of use but the lowest level of protection?
a. security code
b. removable chassis
c. detachable face

38. Which feature gives you the ability to virtually eliminate background noise during playback of tapes.
a. music search
b. adjustable bias control
c. Dolby noise reduction
d. separate bass and treble controls
e. radio/tape switch

39. Which type of car stereo anti-theft protection is generally the most expensive?
a. security code
b. removable chassis
c. detachable face

40. Which car stereo feature gives the listener the ability to listen to the radio while rewinding or fast forwarding a tape?
a. music search
b. adjustable bias control
c. separate bass and treble controls
d. radio/tape switch

41. Which car stereo feature gives the listener the ability automatically fast forward or rewind to the beginning of the next song on a tape, at the touch of a button.
a. music search
b. adjustable bias control
c. separate bass and treble controls
d. radio/tape switch

Following are a series of items regarding the amount of thought and effort you feel you put into this evaluation task. For each item please indicate whether you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree with the statement. There are no right or wrong answers: we only want you to answer the questions as truthfully as you can.

	strongly agree	agree	neither agree nor disagree	disagree	strongly disagree
42. I put a lot of thought into my responses.	1	2	3	4	5
43. I took the evaluation task as seriously as if I was making a real car stereo purchase.	1	2	3	4	5
44. I was very involved with the evaluation task.	1	2	3	4	5
45. The evaluation task was important to me.	1	2	3	4	5

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