7-1995

Consumer Variety-Seeking Among Goods and Services: An Integrative Review

Barbara E. Kahn
University of Pennsylvania

Recommended Citation

Kahn, B. E. (1995). Consumer Variety-Seeking Among Goods and Services: An Integrative Review. *Journal of Retailing and Consumer Services, 2* (3), 139-148. http://dx.doi.org/10.1016/0969-6989(95)00038-0

Consumer Variety-Seeking Among Goods and Services: An Integrative Review

Abstract

Reflecting the importance of variety-seeking in consumer choice, there has been an explosion of research in the marketing literature on this topic in the past decade. The goal of this paper is to provide an integrative review of the key findings. In particular, a conceptual, integrating framework for understanding the reasons why consumers seek variety is presented. Within this context, the implications of this research for retail and service management are discussed as well as a review of the measurement tools and predictive models of variety-seeking that have been proposed in the last decade.

Keywords

variety-seeking, choice behavior, choice models

Disciplines

Advertising and Promotion Management | Behavioral Economics | Business | Business Administration, Management, and Operations | Business Intelligence | Cognition and Perception | Cognitive Psychology | Management Sciences and Quantitative Methods | Marketing

REFERENCE: Kahn, Barbara E. (1995), "Consumer Variety-Seeking among Goods and Service," Journal of Retailing and Consumer Services, 2 (Fall), 139-148

Consumer Variety-Seeking Among Goods & Services: An Integrative Review

Barbara E. Kahn*
University of Pennsylvania

*Barbara E. Kahn is the Stephen M. Peck Term Associate Professor of Marketing at The Wharton School, University of Pennsylvania, Philadelphia, PA 19104, (215) 898-7766, fax: (215) 898-2534, e-mail: BARBK@WMKT.WHARTON.UPENN.EDU.

ABSTRACT

Reflecting the importance of variety-seeking in consumer choice, there has been an explosion of research in the marketing literature on this topic in the past decade. The goal of this paper is to provide an integrative review of the key findings. In particular, a conceptual, integrating framework for understanding the reasons why consumers seek variety is presented. Within this context, the implications of this research for retail and service management is discussed as well as a review of the measurement tools and predictive models of variety-seeking that have been proposed in the last decade.

Running Head: Consumer Variety-seeking

Key words: variety-seeking, choice behavior, choice models

The study of how and why consumers seek variety in their choices has long been a major focus of interest among both academics and practitioners in marketing. When purchasing package goods, for example, consumers rate variety as one of their major concerns (Sellars 1991). Likewise in selecting among services, consumers also commonly seek a portfolio of options to satisfy their needs. For example, in financial investments, or in dining and vacation decisions, consumers seem to prefer a variety of options rather than remaining loyal to just one.

Reflecting the importance of variety-seeking in consumer choice, there has been an explosion of research in the marketing literature on this topic in the past decade. The goal of this paper is to provide an integrative review of the key findings. In particular, we begin by expanding and refining the existing framework (McAlister and Pessemier 1982) for classifying the reasons why consumers seek variety. Within this context, we discuss the implications of the recent research on variety-seeking for retail and service management and provide a brief review of the measurement tools and predictive models of variety-seeking that have been developed in the last decade.

WHY CONSUMERS SEEK VARIETY

Variety-seeking in purchase behavior is defined as the tendency of individuals to seek diversity in their choices of services or goods. Such variation may arise over time, such as when a consumer chooses different restaurants over a sequence of dining occasions. Variety may also be an important consideration when a consumer chooses a portfolio of options at one time. For example, when choosing financial services or investments, consumers may choose a diverse portfolio. In choosing to belong to a fitness club, a consumer may choose one which offers a portfolio of fitness options (even if all the options are not eventually used). In this paper, we are not concerned with a retailer's product-variety decisions when the purpose is to cater to different segments of people with different loyalties, i.e., variety *across* consumers. We are only considering the situations where one individual consumes a variety of services, i.e., variety *within* one consumer.

McAlister and Pessemier (1982) classified varied behavior as being either *derived* or *direct*. Derived variety-seeking behavior was the result of some other motivation, i.e., not directly related to a desire for variety. This type of variety-seeking occurred because of "multiple needs, multiple users or multiple situations." Direct variety-seeking behavior was defined as resulting from intrapersonal motives; variety-seeking which occurred because of the desire for change and/or novelty or because of satiation with product attributes. In recent years, another motivation for variety-seeking behavior has been proposed, preference uncertainty or taste misprediction (Kahneman and Snell 1990, Simonson 1990), which suggests the need for a further expansion of the classification scheme.

As the above discussion indicates, the current literature identifies three main motivating factors for variety-seeking behavior (see Figure 1). The first factor corresponds to McAlister and Pessemier's direct variety-seeking in which consumers seek variety because of some internal or personal motivation. We call this type of motivation for variety-seeking, "Satiation/Stimulation," to make precise exactly what is causing the desire to seek variety. The second factor is "External Situations," similar to McAlister and Pessemier's derived variety-seeking. In these conditions, consumers seek variety due to external constraints rather than due to an immediate, internally-derived, need for variety. Finally, there is a third motivation, which does not exist in the McAlister and Pessemier framework, which we call "Future Preference Uncertainty." Here, consumers seek variety so that they will have a portfolio of options as a hedge against future uncertainties or as a means to protect their continued interest in favorite options.

In addition to the refinements in the motivation for variety-seeking behavior, the past decade of research has produced a number of new models of variety-seeking that allow retailers to measure behavior and to predict future variety-seeking tendencies. To measure or model variety-seeking behavior, a retailer needs to record the pattern of choices individuals make over time. Although this is not a new concept, (panel data in supermarket categories have existed for some time), the idea of specifically looking at variety measures within a individual's choice history has not always been a top priority for retailers of other categories or services. For example, a health club might issue membership cards to customers and records patterns of choice over time. Restaurants might record loyal customers' selections of meals over time. Essentially, most service organizations have the ability to issue membership cards, or frequent user cards, so they can observe the pattern of choices their loyal customers make over time. This is essentially what supermarkets have begun doing by issuing "check-cashing" cards or "bonus" cards to loyal customers. Once longitudinal choice histories for individuals exist, then variety-seeking behavior can be measured and modelled.

Corresponding to the proposed motivations of variety-seeking, the models can also be divided into three groups. Some models of variety-seeking are based on the notion that consumers switch due to an internal desire for change due to satiation or need for stimulation. Other models of variety-seeking behavior are specifically formulated to measure switching or variety-seeking that occurs because of external changes such as promotions. Finally, there are models of variety that focus on choices made in a portfolio -- or choices that consumers make at one purchase occasion for later consumption and thus issues of future preference uncertainty arise. We will discuss each of the three motivations for variety-seeking in turn and summarize the models that have been proposed to measure and predict each type of behavior.

INSERT FIGURE 1

SATIATION/STIMULATION

Coombs and Avrunin (1977) cite physiological evidence which indicates that a single peak-preference function generally characterizes individuals' reactions to attributes of a stimuli. Once a consumer has reached an optimal level of an attribute, s/he feels satiated and may choose to consume a different attribute on the next occasion. Similarly in purchase behavior, researchers propose that variety-seeking is motivated because consumers experience satiation on attributes provided by specific brands and are therefore less likely to choose that same brand after it has recently been chosen (Jeuland 1978, McAlister 1979, 1982). This satiation with a specific brand could also be occurring because consumers may not find a single option which satisfies all of the attributes of an ideal point (Huber and Reibstein 1978), or because consumers seek a balance of attributes to maximize utility (Farquhar and Rao 1976).

In other situations, consumers may be satisfied with their current choices, but may be looking to try something new or different for the fun of it, or for the thrill of it (e.g., Berlyne 1963, 1970). Thus they may alternate among familiar items or switch to new items to satisfy a desire for novelty or complexity in brand consumption (Maddi 1968, Fiske and Maddi 1961) or because of curiosity (Raju 1980). It should be noted that this internal need for stimulation or novelty may be precipitated from a change in the external environment, but the choice for variety is ultimately an internal drive.

> Faison (1977) offers an interesting example of this type of stimulation:
> "It is known, for example, that television viewers prefer to watch football games that are "live" rather than delayed. Superficially, this preference is hard to explain. The football players perform just as well under one condition as the other and all of the visual and auditory stimuli are the same.
> The difference, however, lies in the excitement of the unpredictability of the outcome of the live game. Viewers watching the action as it occurs have no idea who will win. A variety of outcomes is possible. Once the outcome is known, the game becomes a rerun with nothing new possible and thus becomes dull."

Changing the Internal Desire for Variety. There have been two ways suggested in the literature to alter the consumer's internal drive for variety. One way is to change the consumer's mood state or to induce positive affect. The other way is to change the frequency or intensity with which the consumer approaches the product decision.

The psychology literature shows (see Isen 1987 for review) that positive affect results in more creative and flexible processing and in the recognition of more aspects or features of items. Thus it has been theorized (Kahn and Isen 1993) that the induction of positive affect in consumers in brand choice tasks may lead to a higher recognition of the differences among brands, or the unique features various brands offer, and motivate the subjects to seek additional stimulation in their brand choice patterns. If consumers are motivated to seek additional stimulation, this should lead to more movement or interchange among the brands, choice patterns compatible with variety-seeking. Laboratory experiments (Kahn and Isen 1993) have shown that positive affect, induced by a small gift of candy or gum, can facilitate more variety-seeking behavior for choice sets where there is little or no perceived uncertainty. However, when uncertainty is introduced there is no difference in variety-seeking behavior between the subjects who had received the small gift and the control subjects. Although the induction of affect was done externally in these experiments, the implication is that different internal moods affect a consumer's desire for variety.

The frequency or intensity of consumption, and the mode of consumption can also affect how quickly a consumer feels satiated (Park, Moorman and Kohli 1990) and thus affect a consumer's internal need for variety-seeking. The more frequently and intensely a consumer engages in the consumption, the more quickly s/he will feel satiated. In addition, consumers are more likely to be satiated by particular attributes of a service or good if they relate to the primary aspect being consumed, rather than the secondary aspect being consumed. In other words, if bread is thought of as a food in itself, such as in shops that feature specialty breads, then consumers are more likely to satiate on specific attributes and to seek variety among the breads. On the other hand, if bread is thought of as the outside of a sandwich, the attributes of the filling in the sandwich (the primary product) are more likely to cause satiation. Retailers can protect the loyalty to their main service in a similar way, by providing variety in the ancillary services. In a restaurant, for example, that specializes in a certain type of seafood, consumers' need for variety can be accommodated in the use of sauces or side dishes, while still maintaining loyalty to the same seafood over time.

Measures/Models of Variety-Seeking Behavior Due to Satiation/Stimulation

If consumers have an inherent drive for variety either because they have satiated with the currently consumed product or because they are looking for stimulation, then they will be less likely to choose the same item on two consecutive choice occasions. The simplest measure of this type of variety-seeking would be to consider the degree of alternation or patterning of brands within a choice set even if the brands are familiar (Faison 1977, Venkatesan 1973). Thus a consumer would be labelled more of a variety-seeker if s/he alternated between two brands over time, rather than consuming one brand on every consecutive occasion for half the time and the other brand on every consecutive occasion for other half of the time. An easy way to measure this aspect of variety-seeking would be to count the number of switches, where a subject changed from one item on one choice occasion to a different item on the next choice occasion, where a higher number of switches indicates more variety-seeking behavior.

First-order models: More sophisticated models of this kind of variety-seeking have used first-order Markov processes to model the behavior. First-order models of variety-seeking behavior are specified by a purchase transition matrix, where the diagonal entries represent the repeat purchase probabilities (P[i|i]), and the off-diagonal entries represent the probabilities of switching from one brand to another (P[i|j]). Using the entries in the transition matrix, the long-run unconditional probabilities of purchasing any brand (P[i]) can also be obtained. These long-run probabilities are frequently treated as market shares. If variety-seeking behavior is occurring, then the probability of purchasing the same brand given it was purchased on the last occasion (P[i|i]) is posited to be less than the unconditional probability of purchasing that brand (P[i]).

Most first-order models of variety-seeking behavior are based on modifications of the basic model Givon proposed in (1984). In his model the choice made on the last purchase occasion can either increase the probability of choosing the same brand on the next occasion (i.e., variety-avoidance) or decrease the probability of choosing the same brand on the next occasion (i.e., variety-seeking) or have no effect, zero-order. Givon defines a parameter, VS, which indicates the degree of variety-seeking or variety-avoidance which is occurring or which is forecasted to occur. The parameter VS ranges from -1 which is extreme variety-avoidance (i.e., a consumer always chooses the same brand as s/he chose on the last purchase occasion) to +1 which is extreme variety-seeking (i.e., a consumer never chooses the same brand s/he chose on the last purchase occasion.) If VS equals zero then the consumer is following zero-order behavior.

In the Givon (1984) model, the variety-seeking parameter is estimated at the individual level. Kahn, Kalwani and Morrison (1986) model variety-seeking behavior similarly to Givon, but they estimate the variety-seeking parameter at the aggregate level. Preferences for brands are assumed to be heterogeneous across consumers, but variety-seeking or loyal tendencies are assumed to be homogeneous across the consumers for a specific product class. Their approach results in a very easy-to-implement estimation technique based on empirical conditional probabilities. They use their model to test for differences in variety-seeking tendencies across product classes and also across brands within those product classes.

Another issue in the Givon (1984) model is that when a consumer shifts out of a brand due to variety-seeking, it is assumed that the new share generated is distributed equally among all other brands. Feinberg, Kahn and McAlister (1994) modify this assumption to more closely resemble natural behavior. In the modified-Givon model the new share that is generated strictly from variety-seeking is distributed in proportion to the extant preferences of the brands. Thus in this modified Givon model, given a consumer switches out of a brand due to variety-seeking, there is a greater likelihood that s/he will switch to a more preferred brand than to a less preferred one.[1]

Finally, Trivedi, Bass and Rao (1994) relax the assumption that the VS or variety-seeking parameter is deterministic, and they assume that the consumer's internal need for variety-seeking can

[1]Givon discusses the possibility of this type of modification to his model in his 1984 paper.

vary from occasion to occasion. They present a model that incorporates the variety-seeking variable as a random variable on every purchase occasion.. Their model allows for the estimation of variety-seeking parameters which differ across and within individuals and across product categories.

First-Order Models That Incorporate Dissimilarity. If variety-seeking is occurring because of a consumer's desire for something different on the next occasion from that which has been consumed previously, then it makes sense to include in the model some measure of the difference between the items. Lattin and McAlister (1985) included in their model a parameter that measured the value of the product features shared by the brand last-consumed and the new brand currently being consumed. They argued that if a consumer had a strong need for variety, the likelihood that he or she would buy Brand X after previously buying Brand Y increased with the independent preference for Brand X, the distinctiveness of Brand X via-a-vis Brand Y and the distinctiveness of Brand X vis-a-vis all other competing options. As variety-seeking increased, brands composed of different features than the ones just consumed became relatively more desirable. Their model was defined on the individual-level and it assumed that consumers desired variety uniformly across all characteristics provided by the available items. Feinberg, Kahn and McAlister (1992) built on the Lattin and McAlister model to show the predicted market share implications if the degree of variety-seeking, perceived similarity of items, or relative preferences changed.

More Complex Models: Several more complex models have also been offered in the literature which model variety-seeking behavior as occurring because of a consumer's internal needs. The main advantage of these more complicated models is not measurement or prediction, but rather a more mapping of actual behavior. These higher order models do not offer significantly better predictions of market share than first-order or zero-order models, however, they allow for more complex types of choice behavior. For example, Lattin (1987) uses a multinomial logit formulation and generalizes the description of variety-seeking behavior to be a function of longer choice histories and also to be related to the salient attributes of the past brands consumed. The salience, referring to the lingering impact of the characteristics after consumption, can have either a negative (i.e., variety-seeking) or a positive effect (i.e., brand loyalty). The form Lattin uses for item salience is identical to the exponential smoothing model used by Guadagni and Little (1983) as their construct of loyalty; however, in Lattin's model the specification permits variety-seeking as well as loyal behavior in the choice of brands and attributes.

Bawa (1990) suggests that there is within subject variability in the tendency to seek variety or to be brand loyal depending on choice history. He assumes that choice on any given occasion is affected by choices made after the most recent brand switch. Bawa's model differs from Lattin's model in that he does not consider the effects of product characteristics or brand similarities, but the Bawa model allows consumers variety-seeking or loyal tendencies to change over time depending on consumption history, similar in spirit to the assumption made in the Trivedi, Bass and Rao (1994) first-order model.

EXTERNAL SITUATIONS

Variety-seeking has also been shown to occur if the external environment changes, resulting from a consumer's response to these changes, rather than emanating from internal provocation. As McAlister and Pessemier (1982) pointed out in their framework, consumers seek variety in their choices when usage situation change (Huber and Reibstein 1978, Laurent 1978, McAlister and Pessemier 1982). Usage situations could differ due to time of day, seasonality, vacation, presence of others, or presence or absence of other consumable products . For example, variety-seeking in the restaurant category could result if a consumer frequented one type of restaurant for breakfast and another type for dinner. Similarly in using travel services, patterns may differ within one consumer depending upon whether the traveller was on business or on leisure time. At the household level, variety-seeking behavior may also occur because of the attempt to satisfy different users within the household (Laurent 1978, Lattin 1987, McAlister and Pessemier 1982). This type of variety-seeking occurs primarily as a function of changing preferences due to the changing situations (Belk 1975), not just as a desire for something different based on past consumption.

These past studies have looked at the effects of natural changes in the environment and the resulting effects of variety-seeking. The newest work in this area has focused on ways a retailer can strategically alter the external environment or situation to affect variety-seeking behavior.

Price Promotions: Price promotions are one salient changing aspect of the external environment. Consumers may frequently choose something different from what they normally choose in promotional environments (see Blattberg and Neslin (1990) for a comprehensive review of this extensive literature). Some experimental work has shown that consumers may use price promotions to decide when to add variety to their purchase history (Kahn and Louie 1990). In a laboratory experiment, subjects who were experimentally motivated to seek variety, used the presence of promotions to determine when they would choose something different from their normal selections. The subjects sought variety in their brand choices in times of promotional intensities and were loyal to their old favorites when the promotions were retracted.

This result suggests that if promotions are patterned successfully, they can perhaps be used to provide structured variety-seeking for consumers. Neslin (1991, personal communication) offers the following argument for this perspective: (1) sales promotions induce brand switching (e.g., Gupta 1988)**;** (2) the managerial use of sales promotion has grown tremendously over the past 15 years. Putting these two pieces of information together, there should be a lot more brand switching going on and presumably a decrease in brand loyalty. However, brand loyalty as measured by share of requirement indices did not decline during this 15-year period (Johnson 1984). Thus, it is possible that instead of seeking variety on their own whims, consumers let sales promotions determine their variety-seeking.

External Retail Environment. The second way retailers can affect variety-seeking behavior is through the external retail environment. Laboratory experiments (Menon and Kahn 1994) have shown that if a retailer made the retail environment more stimulating, by incorporating changes over time, consumers would exhibit less variety in the product choices than if the retail environment was static over time. These changes in the environment include changing locations of items within a store or changing the layout -- specifically, changes that would not increase positive affect. As mentioned earlier, if positive affect is induced, a consumer's need for stimulation may be enhanced which would mitigate the effect. Menon and Kahn (1994) also showed that if a consumer was given sufficient variety in one product class, s/he exhibited less variety-seeking than usual in another product class than s/he would have if the first product class had offered no opportunity for variety. In other words, the degree of variety-seeking in choice that a consumer exhibits may not be a function of only category-specific needs. The desire for variety could be satisfied either from variation within the category through brand switching <u>or</u> from variation across product categories or across purchase situations.

Another series of experiments (Mitchell, Kahn and Knasko 1994) found that pumping odors into the retail environment could affect choice behavior and variety-seeking. Specifically, they found that when the odor matched the items in the choice set (e.g., flower smells when choosing flowers, chocolate smells when choosing among candies), subjects chose more variety in their choice sets than subjects in the conditions when the odor did not match. This suggests that perhaps retailers could pump congruent odors into the retail environment to stimulate consumers to seek more variety in their choices. On the other hand, the laboratory studies showed that conflicting odors seem to inhibit variety-seeking behavior and induce more brand loyalty. Conflicting odors could occur in the retail environment due to the recent trend of consolidating retailers into more compact areas. For example, in supermarkets, one can find a Chinese food service next to a bakery next to the air freshener aisle. In malls, a shop featuring ham and sausages may be located next to a bath shop that is actively scenting the air. More research in this area needs to be done to determine precisely why these effects occur, but this preliminary work offers interesting directions for future experimentation.

Models of Variety-Seeking Resulting from Changes in External Situations

In order to measure the degree of variety-seeking or switching behavior that is occurring as a result of external situations rather than from internal needs, the models have to partial out switching due to internal needs from switching due to external needs. To some extent, all choice models which measure the effects of marketing mix variables (particularly price and promotion), size of household, seasonality, etc. are providing answers to this measurement problem. Rather than review the extensive choice model literature (see Meyer and Kahn 1990 or Blattberg and Neslin 1990 for comprehensive reviews), we focus here on models that have explicitly examined variety-seeking behavior per se.

The only model to date that has tried to provide a method of measuring the degree of switching due to intrinsic variety-seeking, independent of the degree of switching due to promotional activity is one proposed by Kahn and Raju (1991). They extend the Kahn, Kalwani and Morrison (1986) framework to include consumers' reactions to price discounts. They assume consumers have stable brand preferences, exhibit tendencies to seek variety or to exhibit brand loyalty, and they allow the switching behavior to change as a result of the promotional environment. Using laboratory experiments, they show that if variety-seeking models do not include promotions, the models may be incorrectly describing the degree of variety-seeking occurring. If variety-seeking is naturally high without promotions, and promotions are increased, the resulting analysis of switching behavior may actually hide how much variety-seeking would have occurred in a promotion-free environment. On the other hand if natural variety-seeking was low, then analyzing switching behavior in heavily promoted environments could make the consumers appear to be seeking variety more than they actually were.

PREFERENCE UNCERTAINTY

Finally, the third motivation for choosing variety in purchases that has been suggested in the literature, is that consumers want a portfolio of options as a hedge against the uncertainty of future tastes (Pessemier 1978). In these circumstances, variety in a choice set is sought not because of the utility for diversity per se, but because of the uncertainty about what future preferences will be (Kahneman and Snell 1990, Simonson 1990, Walsh 1993). Kreps (1979) suggests several reasons why it is rational for consumers to be uncertain about future preferences, e.g., tastes may depend upon what was consumed immediately prior to the decision or future moods may affect preferences. As a result of this uncertainty, it is sensible for consumers to preserve as many options as possible for the future (March 1978).

Simonson (1990) tested this motivation for variety-seeking in a series of experiments using snack foods. One group of subjects were asked to choose a single item from a group of six snacks (e.g., candy bars, potato chips, etc), and were told that they could consume the item immediately. This group was then asked to repeat this procedure twice more in the following two weeks. Another group of subjects were offered the same set of six snacks and asked to choose one snack for immediate consumption and to indicate now which two snacks they would want to consume for the following two weeks. (All alternatives were available for each of the choices.) In this condition, the subjects had to anticipate what their future preferences would be. As anticipated, the subjects who were asked to make their choices all at once for future consumption had more variety in their choice set than the subjects who made one choice each week for immediate consumption that week. Subjects who were anticipating future preferences desired more variety as a hedge against the uncertainty.

Harlam and Lodish (1994) find empirical evidence using scanner data that supports the Simonson laboratory findings. Harlam and Lodish find that consumers tend to exhibit less variety in their purchases across purchase occasions than within purchase occasions. So across occasions, consumers buy the same brand within a product class, but if consumers purchase more than one unit in a product class on a specific occasion, then they tend to seek more diversity and purchase more than one brand.

This situation of choosing a portfolio of items for future consumption occurs in several consumer choice situations. First, there is the situation when consumers buy a bundle of options, all of which will be consumer sometime in the future. For example, consumers frequently purchase food products on one shopping trip for consumption the following week. Then, there is the situation where a portfolio of options has to be chosen first, but then all alternatives in the portfolio may not be consumed. For example, consumers choose the restaurant (assortment) first, and then choose the specific meal (Kahn and Lehmann 1991). In both of these situations, more variety is preferable as the uncertainty either in future tastes or inherent in the situation, increases. Providing the variety may be particularly important if consumers are unfamiliar with the option set or with changes in the option set itself (Meyer and Kahn 1990). By offering a diversified portfolio of services, the time and effort needed to reach a decision is reduced (Simonson 1990) and thus consumers may be more prone to purchase. It should be noted that in these circumstances offering more variety will be perceived as a benefit, even if the consumers do not end up sampling all of the options offered.

Another reason consumers may seek variety in choices is to protect anticipated over-saturation with favorite choices (Ratner, Kahn and Kahneman, research in progress). For example, a consumer may purposely choose a different restaurant from his or her favorite, not because s/he is tired of the favorite yet, but because of the fear that eating at the restaurant too often might make it less special and desirable. Similarly, a consumer may choose not to listen to a favorite song, and thus seek variety in listening to music, not because they especially want variety, but because it is anticipated that listening to favorite music too much will cause annoyance rather than delight. Preliminary research suggests that perhaps if a retailer purposely provides some constraints to the potential overconsumption of consumers' favorite items, (forcing the consumer to maintain some variety in consumption), the overall customer satisfaction is increased and there is less decay in preferences for the favorite.

This line of reasoning would also support the behavior suggested in Loewenstein and Prelec (1990). They found that consumers prefer a pattern of increasing utility over time -- the utility of current consumption depended on previous consumption. They used theories of adaptation and loss aversion (Kahneman and Tversky, 1979) to explain the results. Over time, people tend to adapt to ongoing stimuli and to evaluate new stimuli relative to their adaptation level. Loss aversion implies that people are averse to negative departures from a reference point. Improving sequences allow one to continually position the next purchase or consumption as a gain from one's previous adaptation level; declining sequences provide a series of losses. This suggests the possibility as mentioned above that in some instances, consumers may seek variety specifically to make their most preferred option taste better. Consumer may want to savor their expensive, first class wine (preference for improvement over time); thus they choose to drink a variety of poorer quality wines first so that the expensive wine will taste better in the future.

Models of Variety-Seeking Behavior Due to Preference Uncertainty

In this discussion of variety-seeking behavior, variety is sought not as a change but as a hedge against uncertainty. The simplest measure of the amount of variety a portfolio could offer would be to count the number of options and/or flavors in a choice history where the higher the number, the more variety in the assortment (Kahn and Lehmann 1990, Simonson 1990).

A second way to compute the amount of variety offered in the portfolio of options would be to take into account how many times each options appears. When each option appears with equal frequency, variety is increased (Pessemier 1985). An entropy model would capture this aspect of variety. Even if the number of items included in the choice set is constant, there is more variety in the choice history if the choice shares of the items included are equal (maximum entropy) than if one alternative dominates (low entropy). Following Shannon (1948), a common measure of entropy would be:

$$Entropy = \left| \sum_{j=1}^{m} p_j \ln p_j \right|$$

where p_j equals the market share of item j and m is the total number of items in the category.

Simonson and Winer (1991) constructed a similar variable to measure the variety of a portfolio of options or a choice history on the individual level. They calculated the overall share of purchases of each item for each household across all the household's observed purchases and they called this a variety score. Items associated with smaller variety-scores represented greater variety because these were items that the household did not usually consume. A household-level index was calculated as the sum of the squares of the shares of the brands for the household. The index would be very high if the individual tended to purchase the same flavor each time, and would be very low if the individual were seeking more variety.

Models of Variety in a Portfolio. Several researchers have developed models that examine the assortment of items chosen (Harlam and Lodish 1991, Kahn and Lehmann 1991, Walsh 1994). All of these researchers propose models of consumer choice which explicitly take into account a temporal separation between purchase and consumption. Temporal separation of purchase and consumption affects the assortment of items chosen because consumers are likely to choose a broader range of items within a product category so that uncertain future tastes may be met. Thus purchase of a larger assortment of items results in more flexibility for later consumption.

Kahn and Lehmann (1991) propose a model that suggests the variety represented in a portfolio or assortment of options is a function of the number of items in the assortment, the degree of similarity/uniqueness of the items within the set to one another and is affected by the preference for the items within the set. So an assortment offers less variety if there are fewer items, if the items offered were very similar to one another, or if the items offered were unacceptable in terms of preference.

Walsh (1994) proposes a choice model in which he assumes the consumer maximizes expected utility but also reflects the consumer's need for flexibility. He shows that when a consumer purchase multiple items at one purchase occasion for future consumption, the assortment the consumer chooses depends not only on a consumer's internal desire for variety due to feelings of satiation or needs for stimulation, but also on the consumers' need for flexibility because of uncertainty about future tastes. His model shows that if both forces were occurring, i.e., consumer's internal drive for variety and consumer's uncertainty about future tastes, then more variety would be observed in a consumer's portfolio than if just one of the phenomenon were present.

CONCLUSION

In this paper, we have discussed three basic motivations for why consumers seek variety in their purchases. Consumers may seek variety because of an internal need for variety due to satiation of particular attributes or because of a desire for additional stimulation. Consumers may also seek variety because of changes in the external environment. These changes may be directly manipulated by the retailer through changes in the marketing mix such as price or place, or may just be naturally occurring. The third reason consumers seek variety is as a hedge against uncertainty in future tastes. A varied portfolio of options increases the likelihood that the consumer will be able to choose his or her most preferred option in the future.

These needs for variety based on satiation and uncertainty, suggest that marketers and retailers must provide variety in product and service assortments, so as not to lose loyal customers. For example, a restaurant can fall out of favor when customers tire of it; similarly with currently in-vogue vacation areas. The effects of external factors on the degree of variety-seeking suggest that marketers can control the amount of switching and variety desired by consumers to some degree. Preliminary evidence suggests that price promotions can be a way marketers may channel variety-seeking habits. Also some changes in the external environment seem to alter consumers' needs for variety.

We also summarized in this paper, the last decade of research on quantitative measures and models of variety-seeking. Armed with the ability to measure and forecast how much variety-seeking is occurring, the marketer can experiment and test ways to either stimulate or mitigate variety-seeking behavior. The implications of the existence of variety-seeking behavior is clear for manufacturers of products or services. Large-preference brands, or brands for which consumer preferences are high, tend to lose market share in variety-seeking markets. When looking for variety, consumers often switch away from their most preferred brands to purchase something new for a change. Thus large-preference brands should <u>discourage</u> variety-seeking behavior, (encourage brand loyalty) and only respond to variety-seeking behavior which already exists in the market. On the other hand, a viable strategy for small-preference brands, or for new brands, is to induce or <u>encourage</u> variety-seeking behavior and urge consumers to try a different brand for a change-of-pace (Kahn, Kalwani and Morrison 1988).

From a retailer's point of view, the consumers' relative need for variety could affect the relative size of the assortment offered. If a retailer's strategy is to offer value to the customer through a large assortment of items, (rather than competing on price for example) then the retailer may want to stimulate consumers' variety-seeking tendencies, so the large assortment would be appreciated and help keep the consumer loyal. On the other hand, some retailers may be looking to keep costs down and reduce the size of the offered assortment. In these cases, the retailer would want to encourage loyal behavior and satisfy consumers' potential needs for variety in ways other than through product or service assortment.

NEW OPPORTUNITIES FOR RESEARCH

Although research in variety-seeking behavior has been extensive, gaps exist. For example, most of the work to date on variety-seeking has been descriptive: modelling and measuring the behavior or discussion of the underlying reasons and motivations. Some of the more recent work has been prescriptive, e.g., the use of promotional and positioning strategies for variety-seeking markets (Kahn and Raju 1991, Feinberg, Kahn, and McAlister 1992). Lacking though, is a thorough investigation of the profit implications of these marketing strategies. In addition, most of the current work on variety-seeking has been with regard to consumer goods, specifically supermarket goods. More research may be warranted for applications in services, industrial products and financial services.

Another potentially fruitful area of future research might be the relationship between variety-seeking and advertising. Deighton, Henderson and Neslin (1990) show that advertising has an effect only on consumers who did not recently buy the brand. In their empirical application, it had no effect on consumers who did recently buy the brand. They conclude that advertising may enhance awareness and brand beliefs among non-current users so that it works only among those people. Similarly, Givon and Horsky (1990) suggest that in mature product categories, advertising may have similar effects to price promotions in only having short-run trial inducing effects. They suggest that this may mean that advertising has short-range informational effects but may not cause lasting changes in attitude. This type of effect of advertising would seemingly be quite useful for encouraging variety-seekers to use a brand for a change-of-pace. How and if advertising works when consumers are actively choosing to seek variety has not been adequately explored.

EXTERNAL SITUATION

Huber and Reibstein 1978;
Kahn and Louie 1990; Kahn and Raju 1991;
Laurent 1978; McAlister and Pessemier 1982;
Menon and Kahn 1994;
Mitchell, Kahn and Knasko 1994

SATIATION/ STIMULATION

Bawa 1990; Faison 1977;
Farquhar and Rao 1976;
Feinberg, Kahn and McAlister 1992, 1994;
Givon 1984; Huber and Reibstein 1978;
Jeuland 1978; Kahn and Isen 1993;
Kahn, Kalwani and Morrison 1986, 1988;
Lattin 1987; Lattin and McAlister 1984;
McAlister 1979, 1982; McAlister and Pessemier 1982;
Park, Moorman and Kohli 1990;
Pessemier 1985; Venkatesan 1973

FUTURE PREFERENCE UNCERTAINTY

Harlam and Lodish 1994;
Kahn and Lehmann 1990;
Kahneman and Snell 1990;
Meyer and Kahn 1990;
Pessemier 1978;
Simonson 1990;
Simonson and Winer 1991;
Walsh 1994

FIGURE 1: Motivating Factors for Variety-Seeking Behavior

REFERENCES

Bass, Frank M., Edgar. A. Pessemier, and Donald R. Lehmann (1972), " An Experimental Study of Relationships Between Attitudes, Brand Preference, and Choice," Behavioral Science, 17 (November), 532-541.

Bass, Frank M. Moshe Givon, Manohar U. Kalwani, David Reibstein and Gordon P. Wright (1984), "An Investigation into the Order of the Brand Choice Process," Marketing Science, 3 (Fall), 267-287.

Bawa, Kapil (1990), "Modeling Inertia and Variety Seeking Tendencies in Brand Choice Behavior," Marketing Science, 9 (Summer), 263-278.

Belk, Russell W. (1975), "Situational Variables and Consumer Behavior," Journal of Consumer Research, 2 (December), 157-163.

Berlyne, D. E. (1954), "A Theory of Human Curiosity," British Journal of Psychology, 45, 180-191.

Berlyne, D. E. (1960), Conflict, Arousal and Curiosity, New York: McGraw Hill.

Berlyne, D. E. (1970), "Novelty, Complexity and Hedonic Value," Perception and Psychophysics, 8 (5A), 279-286.

Berlyne, D. E. (1963), "Motivational Problems Raised by Exploratory Behavior," in Psychology: A Study of a Science, (Ed) S. Koch, New York: McGraw Hill

Blattberg, Robert C. and Scott A. Neslin (1990), Sales Promotion: Concepts, Methods and Strategies, Englewood Cliffs, NJ: Prentice-Hall, Inc.

Brown, George H (1952), "Brand Loyalty -- Fact or Fiction? Advertising Age, 23 (June 19), 53-55.

Coombs, Clyde and George S. Avrunin (1977), "Single Peaked Preference Functions and Theory of Preference," Psychological Review, 84 (2), 216-230.

Deighton, John, Caroline Henderson and Scott A. Neslin (1990), "Using Single Source Data to Measure the Effects of Advertising on Brand Switching and Brand Loyalty," Dartmouth University Working Paper.

Faison, Edmund W. J. (1977), "The Neglected Variety Drive: A Useful Concept for Consumer Behavior," Journal of Consumer Research, 4 (December) 172-175.

Farquhar, Peter H. and Vitahala R. Rao (1976), "A Balance Model for Evaluating Subsets of Multiattribute Items," Management Science, 5 (January), 528-39.

Feinberg, Fred. M., Barbara E. Kahn and Leigh McAlister (1992), "Market Share Response When Consumers Seek Variety," Journal of Marketing Research, 29 (May), 227-237.

Feinberg, Fred M., Barbara E. Kahn and Leigh McAlister (1994), "Implications and Relative Fit of Several First-Order Markov Models of Consumer Variety-Seeking," European Journal of Operations Research, 76 (July 28), 309-320.

Fiske, Donald W. and Salvatore R. Maddi (1961), Functions of Varied Experience, Homewood, IL: Dorsey Press.

Givon, Moshe and Dan Horsky (1990), "Untangling the Effect of Purchase Reinforcement and Advertising Carryover," Marketing Science, 9 (Spring), 171-187.

Givon, Moshe (1984), "Variety-Seeking Through Brand Switching," Marketing Science, 3 (Winter), 1-22.

Givon, Moshe (1985), "Variety-Seeking, Market-Partitioning and Segmentation," International Journal of Research in Marketing 1985 (2), 117-127.

Guadagni, Peter and John D. C. Little (1983), A Logit Model of Brand Choice Calibrated on Scanner Data," Marketing Science,2 (Summer), 203-239.

Gupta, Sunil (1988), "Impact of Sales Promotions on When, What and How Much to Buy," Journal of Marketing Research, 25 (November), 342-355.

Harlam, Bari A. and Leonard M. Lodish (1991), "Modelling Consumers' Choice of Assortments of Multiple Items," Columbia University Working Paper.

Huber, Joel and David J. Reibstein (1978), "The Relationship Between Attitude Measures and Choice Frequency," in J. C. Maloney (ed), Attitude Research Plays for High Stakes, American Marketing Association, Chicago, Ill.

Isen, Alice M. (1987), "Positive Affect, Cognitive Processes, and Social Behavior," in Leonard Berkowitz (ed.) Advances in Experimental Social Psychology, Vol. 20, New York: Academic Press, 203-53.

Jeuland, Abel (1978), "Brand Preferences Over Time: A Partially Deterministic Operationalization of the Notion of Variety-Seeking," in Research Frontiers in Marketing: Dialogues and Directions, No. 43, Educators' Conference Proceedings, Subashi Jain, ed., Chicago: American Marketing Association, p. 33-38.

Johnson, Tod (1984), "The Myth of Declining Brand Loyalty," Journal of Advertising Research, 24 (February-March), 9-17.

Kahn, Barbara E. and Alice M. Isen (1993), "The Influence of Positive Affect on Variety-Seeking Behavior Among Safe, Enjoyable Products," Journal of Consumer Research, September, 257-270.

Kahn, Barbara E., Manohar U. Kalwani and Donald G. Morrison (1988), "Niching versus Change-of-Pace Brands: Using Purchase Frequencies and Penetration Rates to Infer Brand Positionings." Journal of Marketing Research, 25 (November), 384-390.

Kahn, Barbara E., Manohar U. Kalwani and Donald G. Morrison (1986), "Measuring Variety-Seeking and Reinforcement Behaviors Using Panel Data," Journal of Marketing Research, 23 (May), 89-100.

Kahn, Barbara E. and Donald R. Lehmann (1991), "Modeling Choice Among Assortments," Journal of Retailing, 67 (Fall), 274-299.

Kahn, Barbara E. and Therese A. Louie (1990), "The Effects of Retraction of Price Promotions on Brand Choice Behavior for Variety-Seeking and Last-Purchase Loyal Customers," Journal of Marketing Research, XXVII (August), 279-289.

Kahn, Barbara E. and Robert J. Meyer (1990), "Modeling Customer Loyalty: A Customer-Based Source of Competitive Advantage," in The Interface of Marketing and Strategy, edited by George Day, Barton Weitz and Robin Wensley, JAI Press, Greenwich Connecticut.

Kahn, Barbara E., Donald G. Morrison and Gordon P. Wright (1986), "Aggregating Individual Purchases to the Household Level," Marketing Science, 5 (Summer), 260-268.

Kahn, Barbara E. and Jagmohan Raju (1991), "The Effects of Price Promotions on Variety-Seeking and Reinforcement Behavior," Marketing Science, 10 (Fall), 316-337.

Kahneman, Daniel and Jackie Snell (1990), "Predicting Utility," in R. M. Hogarth (Ed.), Insights in Decision Making: A Tribute to Hillel J. Einhorn, Chicago: University of Chicago Press.

Kahneman, Daniel and Tversky, Amos (1979), "Prospect Theory: An Analysis of Decision Under Risk," Econometrica, 47 (2), 363-91.

Kalwani, Manohar U. and Donald G. Morrison (1977), "A Parsimonious Description of the Hendry System," Management Science 23 (5), 467-477.

Kreps, David M. (1979), "A Representation Theorem for 'Preference for Flexibility,'" Econometricia, 47 (3), 565-577.

Lattin, James M. (1987), "A Model of Balanced Choice Behavior," Marketing Science, 6 (Winter), 48-65.

Lattin, James M. and Leigh McAlister (1985), "Using a Variety-Seeking Model to Identify Substitute and Complementary Relationships Among Competing Products," Journal of Marketing Research, 22 (August), 330-339.

Lang, Joan (1986), "The Ethnic Food Explosion; Restaurant Chains." Restaurant Business, 85 (July 1), 142.

Laurent, Gilles (1978), "A Study of Multiple Varient Consumption for Frequently Purchased Consumer Products," unpublished dissertation, MIT.

Loewenstein, George and Drazen Prelec (1990), "Preferences Over Outcome Sequences," Harvard Business School Working Paper (April).

Loewenstein, George and Drazen Prelec (forthcoming), "Anomalies in Intertemporal Choice: Evidence and Interpretation," Quarterly Journal of Economics.

Maddi, Salvator R, (1968), "The Pursuit of Consistency and Variety," in Theories of Cognitive Consistency: A Source Book, ed.s Robert P. Abelson et. al., Chicago: Rand McNally.

March, James G. (1978), "Bounded Rationality, Ambiguity, and the Engineering of Choice," Bell Journal of Economics, 9, 587-608.

McAlister, Leigh (1979), "Choosing Multiple Items from a Product Class," Journal of Consumer Research, 6 (December), 213-224.

McAlister, Leigh and Edgar A. Pessemier (1982), "Variety-Seeking Behavior: An Interdisciplinary review," Journal of Consumer Research, 9 (December), 311-22.

McAlister, Leigh (1982), "A Dynamic Attribute Satiation Model of Variety-Seeking Behavior," Journal of Consumer Research 9 (September), , 141-150.

Menon, Satya and Barbara E. Kahn (1994), "The Impact of External Context on Variety-Seeking in Product Choices," Working Paper, The Wharton School, University of Pennsylvania, Philadelphia, PA.

Meyer, Robert J. and Barbara E. Kahn (1990), "Probabilistic Models of Consumer Choice Behavior," in Handbook of Consumer Research, Eds: Thomas S. Robertson, Harold H. Kassarjian, Englewood Cliffs, New Jersey: Prentice-Hall. (pages 85-123).

Mitchell, Deborah J., Barbara E. Kahn and Susan C. Knasko, "There's Something in the Air: Effects of Ambient Odor on Consumer Decision-Making," Working Paper, The Wharton School, University of Pennsylvania, Philadelphia, PA.

Park, C. Whan, Christine Moorman and Rajeev Kohli (1991), "A Strategic Framework for Predicting and Managing Consumer Loyalty to Need-Satisfying Alternatives," University of Wisconsin Working Paper.

Pessemier, Edgar (1978), "Stochastic Properties of Changing Preferences," American Economic Review, 68 (2), 380-385.

Raju, P. S. (1980), "Optimum Stimulation Level: Its Relationship to Personality Demographics and Exploratory Behavior," Journal of Consumer Research, 7 (December), 272-282.

Sellers, Patricia (1991) "Winning over the New Consumer," Fortune (July 29), 113-124.

Shannon, C. E. (1948), "A Mathematical Theory of Communication," Bell System Technical Journal, 27 (July), 379-423.

Simonson, Itamar (1990), "The Effect of Purchase Quantity and Timing on Variety-Seeking Behavior," Journal of Marketing Research, XXVII (May), 150-162.

Simonson, Itamar and Russell S. Winer (1991), "The Relationships Between Purchase Quantity and Selection of Product and Brand Variety: External Validation and Examination of the Moderating Role of Product Display Format," University of California, Berkeley, Working Paper.

Trivedi, Minakshi, Frank M. Bass and Ram C. Rao (1994), "A Model of Stochastic Variety-Seeking," Marketing Science, 13 (Summer), 274-298.

Venkatesan, M. (1973), "Cognitive Consistency and Novelty Seeking," in Consumer Behavior: Theoretical Sources, eds. Scott Ward and Thomas S. Robertson, Englewood Cliffs, NJ: Prentice-Hall, 3550384.

Walsh, John William (1994), "Flexibility in Consumer Purchasing for Uncertain Future Tastes," to appear in Marketing Science..

Winer, Russell S. (1986), "A Reference Price Model of Brand Choice for Frequently Purchased Products," Journal of Consumer Research, 13 (September), 250-6.