

# **The Brand Preference to Search Relationship: An Empirical Investigation**

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## **ABSTRACT**

Establishing a strong brand preference is considered to be an effort-reducing strategy by consumers to simplify information search and choice. However, despite industry-wide acceptance of this axiom in marketing, there has been limited empirical evidence to support the assertion. This paper provides empirical evidence that contradicts this widely held belief. The relationship between brand preference and search is positive for 14 of 19 categories studied. The paper further finds a positive relationship between subjective knowledge and search and explores the mediating effects of brand preference on this relationship. Implications for future research and marketing management are discussed.

## **INTRODUCTION**

Companies are changing from short-term orientations to a focus on building long-term relationships to attain better profits through customer retention, cross-selling, and lower costs related to customer acquisition. To achieve these results, companies are focusing on actions that build brand loyalty among customers. While brand loyalty increases profits for the company, benefits also accrue to customers. These benefits can take the form of reduced consumer stress (as the customer learns to trust the company and perceived risk is reduced), the lack of a need to change (due to predictability and investment in a relationship), and a simplification of a consumer's life (as search and decision making needs are reduced). According to Gwinner et al. (1998, p. 249), "individual and personal benefits to the loyal customer are less documented and certainly underresearched." This study looks at brand preference, a step preceding loyalty. Specifically, the study investigates the relationship between brand preference, subjective knowledge, and external information search.

This research is important because only a few studies look at the relationship between brand loyalty or brand preference and information search. Although these studies provide mixed results, the general assumption is that this relationship is negative. In other words, as consumers develop brand preference or brand loyalty, they engage in less external information search. This assumption may be incorrect. In the current research, brand preference has a positive relationship with search for 14 out of 19 categories evaluated. The relationship for each of the remaining categories is non-significant. This paper contributes to the literature by looking at a clear definition of brand preference; empirically testing the relationship between brand preference, knowledge and search across 19 categories; and developing a framework for the interrelationship of knowledge, brand preference and information search.

## LITERATURE REVIEW

The research on factors impacting information search spans more than four decades, with numerous articles and at least two reviews of the literature (Beatty and Smith 1987; Guo 2001). The focus of this project is to evaluate the relationships of two variables – brand preference and knowledge – with information search.

### *The Relationship between Brand Preference and Search*

Brand preference has been conceptualized in many ways in the marketing literature. In some studies, brand preference has been equated with brand loyalty (e.g., Rundle-Thiele and Mackay 2001). In other studies, it has been evaluated as a precursor to brand loyalty (e.g., Odin et al. 2001). In this study, we consider brand preference as a precursor to brand loyalty. Brand preference is typically viewed as an attitude in which the consumer has a predisposition toward one or more brands. Ben-Akiva et al. (1999) define preferences as “comparative judgments between entities.” We use this definition as a basis for distinguishing brand preference as a comparative judgment between a set of brands which leads to a more favorable attitude toward one or more of the brands.

In contrast, brand loyalty is viewed as a combination of attitude and behavior where a professed commitment toward a brand is manifested in repeat purchasing of the brand. Jacoby and Kyner (1973, p. 2) define brand loyalty as: “(1) the biased (i.e., nonrandom), (2) behavioral response (i.e., purchase), (3) expressed over time, (4) by some decision-making unit, (5) with respect to one or more alternative brands out of a set of such brands, and (6) is a function of psychological (decision-making, evaluative) processes.” This widely accepted definition encompasses behavioral and attitudinal components, stating both must be present since neither is sufficient on its own. Further, the definition allows for loyalty to multiple brands.

Does brand preference necessarily lead to brand loyalty or repeated purchase of the preferred brand? Empirical results have shown that the answer is no. Allenby and Lenk (1995) conclude that “consumer preferences for brands are not nearly as entrenched as might be expected.” Their research shows that promotional activities such as feature ads, displays, and price cuts can have a significant effect on whether or not buyers follow through with their preferences. Additional reasons (other than promotions) why consumers may purchase other brands despite a stated brand preference include a desire to try and learn more about different brands in the category; changing needs or situations; variety seeking; and changes in the available alternatives due to new products or improvements to existing products (Coulter et al. 2003).

Despite the extensive literature on search, only three studies empirically investigate the brand loyalty-search relationship, and only one study could be found that addresses the brand preference-search relationship. For brand loyalty, only one of the studies finds the hypothesized negative, significant relationship between brand loyalty and search. Bennett and Mandell (1969) find this relationship between loyalty and search for the product category automobiles ( $p \leq 0.05$ ), using a behavior-based measure of loyalty (number of prior purchases of a brand and the sequence of prior purchases). In contrast, Kiel and Layton (1981) do not find a significant relationship between a similar behavioral measure of loyalty (repurchase of the same brand) and search time or search activity for the same category of cars. In another context, Jacoby et al. (1978) evaluated the brand loyalty-search relationship for breakfast cereals. In this study, both an attitude-based and a purchase-based measure of brand loyalty were used. Their findings show no

relationship between the purchase-based measure of brand loyalty and search ( $p=0.59$ ) and only a questionable relationship between the attitudinal measure of brand loyalty ( $p = 0.06$ ). As such, the literature provides at best weak support for the hypothesis that brand loyalty reduces search. Despite this limited support, the marketing literature concludes that brand loyalty decreases search effort (e.g., Gwinner et al. 1998). In fact, Sheth and Parvatiyar (1995, p. 256) claim that “the fundamental axiom of relationship marketing is, or should be, that consumers like to reduce choices by engaging in an ongoing loyalty relationship with marketers.”

Similarly, brand preference is presumed to reduce the extent of search, although the relationship may be weaker due to a lesser commitment than loyalty. The one study on the relationship between brand preference and search supports this hypothesized negative relationship (Cobb and Hoyer 1985). A significant, negative relationship between brand preference was found for both search time and package examination for two categories: coffee ( $r=-.32$  for time and  $r=-.32$  for package examination) and bathroom tissue ( $r=-.23$  for time and  $r=-.26$  for package examination). The search variables were based on observation of consumers in the store. Brand preference was measured as strength of preference for the selected brand (one of several questions asked of shoppers after making a selection).

The proposed relationship between brand preference and search is predicated on the conceptual literature and limited empirical evidence to date that supports the use of preference and ultimately loyalty to reduce the effort and cost of an extensive decision process by the consumer. The extent of search is based on the perceived benefits of search (in terms of making the best choice, getting a lower price, etc.) relative to the costs (time and effort required by the search) for the consumer. As one consumer stated, “If you find somebody you like, you don’t have to worry about trying to find somebody else. It’s nice that you don’t have to go through all of that hassle (Gwinner et al. 1998, p. 104).” As a result, in keeping with the extant literature to date, brand preference is hypothesized to have an inverse relationship with search effort.

*H1: Brand preference is negatively related to search effort.*

### ***The Effect of Knowledge on Search***

In contrast to brand loyalty and brand preference, there is an extensive literature evaluating the relationship between knowledge and search. This relationship has been shown to vary depending on the type of knowledge and the measure of search (subjective vs. objective; specific brand knowledge vs. memory structure, cf. Fiske et al. 1993). Empirically, subjective knowledge has been found to be positively related to evoked set size and search activities/effort. These findings exist across a wide range of categories: physicians, phones/answering machines, wine, grocery products, TVs, VCRs, and cars.

Alba and Hutchison (1987) propose that experts are more likely to search for new information because (a) expertise increases awareness of the existence of potentially acquirable information and (b) familiarity reduces the cost of information acquisition. Schmidt and Spreng (1996) further postulate that knowledge increases the perceived ability to search and therefore should decrease the perceived costs of search. A third potential explanation for a positive relationship between knowledge and search is based on the relationship between knowledge and involvement. Greater knowledge has been shown to be positively related to increased involvement with a category (e.g., Raju et al. 1995). As a result, these consumers may have a greater interest in the category, enjoy the search process more, and receive benefits beyond the

quality/deal for the purchase (e.g., market mavenism, cf. Urbany et al. 1996). Therefore, subjective knowledge is hypothesized to be positively associated with external search.

*H2: Subjective knowledge is positively related to search effort.*

### ***Mediating Effect of Brand Preference on the Relationship between Knowledge and Search***

There has been limited empirical research on the relationship between knowledge and brand preference; however, there has been much postulation about the nature of this role. Alba and Hutchison (1987) postulate that knowledge creates familiarity with products, enables consumers to categorize products into more complex structures, and leads to less prototypicality in brand choices. Since knowledge leads to greater awareness, categorization and memory of brand-related information in the category, knowledge is expected to have a positive relationship to brand preference.

*H3: Brand preference will be positively related to subjective knowledge.*

Increased knowledge is likely to lead to brand preference, as experts categorize brands and information about brands. These knowledge structures allow consumers to identify the “best” brand based on familiarity and information. Therefore, consumers may use brand preference in decision making, and this preference may supersede the direct relationship between knowledge and search.

*H4: Brand preference will mediate the relationship between subjective knowledge and search.*

## **METHODOLOGY**

To test these hypotheses, a survey was administered by e-Rewards Inc. (ERI) through its online panel of consumers. This panel of more than 800,000 members represents a cross-section of the U.S. and allows ERI to accurately screen and solicit participation in a survey. One thousand seventy-one respondents completed the survey. The sample was balanced as closely as possible to the 2000 U.S. Census demographics on geography, gender, age, household income, and ethnicity.

Previous studies have typically only looked at the relationship between search and brand preference or loyalty for one category per respondent. The goal of this study was to evaluate the relationship between brand preference and search across a broad range of categories to determine the robustness of the hypothesized relationships. The decision was made to select categories based on the four-digit NAICS sub-sector codes for retail businesses. There are twenty such categories, of which one was dropped (flowers) because of the potential confusion of consumers since flowers are not typically branded. Thus, nineteen categories were included in our analysis as shown in Table 1. These categories represent a broad cross-section of the categories that consumers are likely to purchase (low vs. high involvement, differentiated vs. commodity products, infrequent vs. frequent purchase, utilitarian vs. hedonic).

Since the goal of the survey was to look at subjective knowledge, brand preference, and search effort across 19 categories, a tradeoff in terms of categories vs. measures was necessary to make the survey a reasonable task for consumers to complete. Due to the number of categories, single-item measures were used for search, brand preference, and subjective knowledge to encourage response and avoid over-taxing the respondent. While single-item measures have been criticized, empirical research has shown that single-item measures are likely to be easier and take less time

for respondents to complete; often contain more face validity; and may have greater flexibility than multiple-item scales (cf. Wanous et al. 1997). Since these constructs are easily understood and have been shown to be unidimensional (e.g. Brucks 1985), using a global measure for each should adequately capture the core construct for the purposes of this research.

### ***Dependent and Independent Variables***

Consistent with prior research, the dependent variable for the analysis is search time. Each respondent was asked to think about the last time that he or she bought a product in the category and to estimate the amount of time spent “researching the product and comparing brands and prices before you made a purchase.” If an individual had not made a purchase in the category, then no responses were recorded.

As stated previously, respondents were asked to think about the last time they purchased a product in this category while answering the questions. For brand preference, respondents were asked how likely they were to prefer one specific brand of the product for their purchase on a 7-point scale ranging from “very unlikely” to “very likely.” This measure is adapted from the strength of brand preference measure used by Cobb and Hoyer (1985). Knowledge was measured using self assessment. Subjective knowledge has been used extensively in research on information search (e.g., Brucks 1985; Urbany et al. 1996). In this study, the respondent was asked to rate his or her knowledge for each product category. The measure used a 7-point scale that ranged from “very low” to “very high.”

	Sample Size	Search Time in Minutes (Rank)	Subjective Knowledge (Rank)	Brand Preference (Rank)
Overall (all categories)		257	4.03	4.02
Automobiles	992	1638 (1)	4.69 (9)	5.65 (1)
Other motor vehicles	201	861 (2)	4.13 (13)	4.68 (6)
Automotive parts, accessories, and tires	949	188 (8)	3.29 (19)	4.22 (10)
Furniture	1010	607 (3)	3.81 (15)	3.54 (16)
Home furnishings	836	498 (4)	3.78 (16)	3.53 (17)
Electronics and appliances	1043	424 (5)	4.72 (8)	5.16 (2)
Building material and supplies	599	249 (6)	3.48 (18)	3.51 (18)
Lawn and garden equipment and supplies	757	200 (7)	3.71 (17)	3.89 (14)
Groceries	1060	81 (15)	5.53 (1)	4.67 (7)
Specialty food	812	60 (17)	4.87 (6)	4.72 (5)
Beer, wine, and liquor	892	42 (18)	4.96 (3)	5.16 (2)
Health and personal care products	1046	62 (16)	4.88 (5)	4.98 (4)
Gasoline	1031	31 (19)	4.31 (10)	3.75 (15)
Clothing	1068	142 (11)	4.98 (2)	4.54 (9)
Shoes	1062	99 (12)	4.93 (4)	4.58 (8)
Jewelry, luggage, and leather goods	929	151 (10)	4.22 (11)	3.97 (12)
Sporting, hobby, and musical goods	934	172 (9)	4.19 (12)	4.09 (11)
Books, periodicals, and music	1027	88 (13)	4.74 (7)	3.97 (12)
Office supplies, stationery, and gifts	1010	86 (14)	4.10 (14)	3.38 (19)

***Table 1: Average Ratings of Search Time, Knowledge and Brand Preference***

## RESULTS

Table 1 presents the average rating and relative rankings for search time, brand preference, and subjective knowledge for each of the 19 categories. As expected, more expensive, higher risk purchases such as motor vehicles, furniture, home furnishings, and electronics and appliances elicited the highest search times. Products involving safety or financial risk (e.g., building, lawn and auto parts/materials) or more social risk (e.g., jewelry, clothing and shoes) were in the middle in terms of search time. Frequently purchased goods with relatively low financial risk (e.g., gasoline, alcoholic beverages, health and personal care products, and grocery and specialty food products) had the lowest search times. Subjective knowledge was highest for more frequently purchased or personal goods (e.g., groceries, alcoholic beverages, healthcare products, clothing, and shoes). Brand preference was lowest for infrequently purchased or commodity products (e.g., office supplies, furniture and home furnishings, building materials, and gasoline).

### *Method of Analysis*

To assess direct effects, simple regressions were run between the dependent and independent variables. To test for mediating effects, four separate regressions were run for each category: (1) knowledge on brand preference (the mediator), (2) knowledge on search time, (3) brand preference on search time, and (4) brand preference and knowledge on search time. A mediating effect is supported if the coefficient for knowledge is significant in the first two regressions; the coefficient for brand preference is significant in (3) and (4); and the effect of knowledge on search is weaker in regression (4) than in regression (2). This analysis is consistent with the tests suggested by Baron and Kenny (1986) for mediation. Table 2 summarizes the results of these analyses. All of the coefficients reported in Table 2 are standardized.

### *Direct Effects*

The most surprising finding of the survey is that while brand preference is significantly related to search for 14 of the 19 categories ( $p \leq 0.05$ ), the relationship is positive, not negative. Two of the categories have a negative, although non-significant relationship to search (automobiles and health/personal care products). Therefore, there is no support for H1.

H2, however, is supported. Knowledge is positively related to search in 14 of the 19 categories studied ( $p \leq 0.05$ ). There is no evidence to support a negative or inverted-U relationship between knowledge and search. Across all categories, the results also show a strong and positive relationship ( $p \leq 0.05$ ) between knowledge and brand preference. This finding supports H3.

### *Mediating Effects of Brand Preference*

The mediating effects are not as clear-cut as the direct effects. The overall analysis for all 19 categories shows a mediating effect for brand preference. In this analysis, knowledge is positively related to brand preference, and knowledge and brand preference are positively related to search time. In addition, when brand preference is entered into the regression with knowledge and search, the knowledge-search relationship becomes non-significant. Five other categories provide evidence for brand preference as a mediator of the knowledge to search relationship: building materials & supplies; lawn and garden equipment & supplies; groceries; books, periodicals, & music; and office supplies, stationery & gifts. These findings partially support H4.

For the majority of the remaining categories, knowledge is dominant in the regressions. These categories show a positive, significant effect for knowledge on search time. For six of the categories (automotive parts/tires/accessories; furniture, home furnishings, electronics/

appliances, shoes, jewelry/luggage/leather goods), brand preference is also significant. However, the coefficient is higher for knowledge and remains significant when both knowledge and brand preference are entered into the regression with search time, showing the dominance of knowledge in these categories. There are three exceptions. For specialty food, brand preference is the only significant factor. For two categories (gasoline and sporting goods, hobby, & musical instruments), neither knowledge nor brand preference is significantly related to search time.

Dependent Variable	Brand Preference	Search				
Mediator Model	(1)	(2)	(3)	Overall Model (4)		
Independent Variables	K R <sup>2</sup> , $\beta$	K $\beta$	BP $\beta$	K & BP R <sup>2</sup> , F	K $\beta$	BP $\beta$
All Categories	.246, .496 <sup>a</sup>	.035 <sup>a</sup>	.054 <sup>a</sup>	.003, 27.485 <sup>a</sup>	.014 <sup>c</sup>	.047 <sup>a</sup>
<b>Brand Preference as Mediator</b>						
Building material & supplies	.156, .395 <sup>a</sup>	.024	.088 <sup>b</sup>	.008, 2.347 <sup>c</sup>	.000	.088 <sup>b</sup>
Lawn/garden equipment & supplies	.245, .495 <sup>a</sup>	.106 <sup>a</sup>	.159 <sup>a</sup>	.025, 9.583 <sup>a</sup>	.052	.128 <sup>a</sup>
Groceries	.119, .345 <sup>a</sup>	.039	.080 <sup>a</sup>	.007, 3.487 <sup>b</sup>	.013	.076 <sup>b</sup>
Books, periodicals, & music	.157, .397 <sup>a</sup>	.066 <sup>b</sup>	.124 <sup>a</sup>	.016, 8.206 <sup>a</sup>	.023	.115 <sup>a</sup>
Office supplies, stationery, & gifts	.230, .479 <sup>a</sup>	.100 <sup>a</sup>	.104 <sup>a</sup>	.014, 7.294 <sup>a</sup>	.066 <sup>c</sup>	.073 <sup>b</sup>
<b>Knowledge as Dominant Factor</b>						
Automotive parts, tires, accessories	.129, .359 <sup>a</sup>	.151 <sup>a</sup>	.080 <sup>b</sup>	.024 11.493 <sup>a</sup>	.140 <sup>a</sup>	.032
Furniture	.210, .459 <sup>a</sup>	.110 <sup>a</sup>	.075 <sup>b</sup>	.013, 6.505 <sup>a</sup>	.095 <sup>a</sup>	.030
Home furnishings	.197, .443 <sup>a</sup>	.105 <sup>a</sup>	.097 <sup>a</sup>	.014, 6.054 <sup>a</sup>	.078 <sup>b</sup>	.063
Electronics & appliances	.127, .356 <sup>a</sup>	.166 <sup>a</sup>	.109 <sup>a</sup>	.031, 16.477 <sup>a</sup>	.146 <sup>a</sup>	.058
Shoes	.264, .514 <sup>a</sup>	.147 <sup>a</sup>	.109 <sup>a</sup>	.023, 12.550 <sup>a</sup>	.124 <sup>a</sup>	.046
Jewelry, luggage, & leather goods	.232, .518 <sup>a</sup>	.141 <sup>a</sup>	.073 <sup>b</sup>	.020, 9.408 <sup>a</sup>	.137 <sup>a</sup>	.009
Automobiles	.071, .266 <sup>a</sup>	.094 <sup>a</sup>	-.046	.013, 6.699 <sup>a</sup>	.108 <sup>a</sup>	-.069 <sup>b</sup>
Health/personal care products	.241, .491 <sup>a</sup>	.078 <sup>b</sup>	-.015	.010, 5.066 <sup>a</sup>	.111 <sup>a</sup>	-.068 <sup>c</sup>
Beer, wine, and liquor	.425, .652 <sup>a</sup>	.068 <sup>b</sup>	.043	.005, 2.109	.062	.012
Other motor vehicles	.150, .387 <sup>a</sup>	.162 <sup>b</sup>	.149 <sup>b</sup>	.034, 3.463 <sup>b</sup>	.120	.096
Clothing	.212, .460 <sup>a</sup>	.074 <sup>b</sup>	.065 <sup>b</sup>	.007, 3.585 <sup>b</sup>	.057	.039
<b>Other/No Effects</b>						
Specialty food	.276, .526 <sup>a</sup>	.062 <sup>c</sup>	.078 <sup>b</sup>	.007, 2.895 <sup>c</sup>	.035	.063
Gasoline	.187, .433 <sup>a</sup>	.015	.046	.002, 1.082	-.005	.048
Sporting goods, hobby, & musical instruments	.347, .589 <sup>a</sup>	.054	.053	.004, 1.553	.036	.034
<sup>a</sup> p≤0.01; <sup>b</sup> p≤0.05; <sup>c</sup> p≤0.10; BP = Brand Preference; K = Knowledge						
<b>Table 2: Regression Results</b>						

## DISCUSSION AND IMPLICATIONS

While there has been extensive research on the relationship between knowledge and search, empirical research on the relationship between brand preference and search has been much more limited. In contrast to the hypothesized inverse relationship, brand preference is found to be positively related to search in 14 categories. In other words, consumers with a stronger brand preference will tend to search more not less. While this finding seems somewhat counter-intuitive, it is not without precedent in the conceptual literature. The literature provides at least three possible explanations for this finding. (1) The dynamic nature of most product categories due to product proliferation, global markets, and advancement of science and technology may encourage information search to make the "best choice" regardless of brand preference (Peterson 1995). (2) Even with a limited evoked set (or a set of one), extensive information search may be necessary because "a given brand offers many models and a consumer could go through a complex decision process if he or she considers all of the possible models that a single brand and dealer offer (Lambert-Pandraud et al. 2005, p. 101)." (3) Consumers appear to prefer more rather than fewer choices. By having a larger evoked set and engaging in a greater search effort, consumers may derive more confidence and satisfaction in the final choice (Peterson 1995).

The positive relationship between knowledge and search has both conceptual and empirical support in the literature. As discussed previously, knowledge leads to lower search costs and the ability to assimilate a broader range and greater detail of information. The findings in this research extend previous findings by showing that this positive relationship exists across a variety of product categories.

The positive relationship between knowledge and brand preference is one of particular interest to understanding how brand preference develops and its relationship to consumer search and decision making. While knowledge may lead to brand preference, it does not appear that this is merely an effort-reducing mechanism for the consumer. Rather, it appears that greater knowledge leads to informed brand preference. Greater knowledge may lead to a greater ability and also a greater desire (due to higher involvement or need for cognition) to seek out relevant information even when there is a stated brand preference.

Based on the results, a definitive mediating relationship cannot be prescribed for brand preference on the knowledge-to-search relationship. The categories where this relationship does hold appear to be lower involvement (e.g., groceries) and/or commodity-type products (e.g., building materials, office supplies). In these categories, brand preference serves as an intervening variable between knowledge and search. In contrast, the categories where knowledge is dominant are primarily higher involvement categories either due to financial or social risk. Many of these categories are hedonic and potentially related to the individual's self-image or status (e.g., furniture, electronics, jewelry, automobiles, etc.). In these categories, knowledge supersedes brand preference in determining the investment in information search. As such, further research is needed to evaluate when brand preference may be more or less important in determining the degree of external search and ultimately choice.

This study is not without limitations. As discussed previously, while the use of single-item measures seems appropriate in the context of the study and the constructs measured, replication of the findings with multiple-item measures would support the robustness of the results. Also, this research only considers subjective knowledge. Research that incorporates measures of objective as well as subjective knowledge may provide interesting relationships between the two



types of knowledge and brand preference. The broadness of some of the categories (e.g., groceries) may have led some respondents to include search time for multiple products in the shopping trip so claimed search time for these categories may be high. Finally, the nature of cross-sectional surveys prohibits definitive causation determination. Although the order and instructions parallel those of previous research to encourage the respondent to think of one specific purchase in each category, the respondent may still have considered current knowledge and brand preference. As a result, the research shows the relationship between knowledge, brand preference, and search, but cannot fully explicate the directionality of these relationships. Future research using experimentation will help clarify the direction and evolution of these relationships.

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