

Influencing Factors in High vs. Low Share Brand Choice*

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ABSTRACT

We investigate factors that influence the choice of high-share brands (HSBs) vs. low-share brands (LSBs) among various product and consumer characteristics related to brand-share perceptions. Specifically, using 8 product categories varying in terms of purchase decision involvement, we show how the influencing factors vary across the categories. At the general level that cover all the 8 categories, our hierarchical Bayesian regressions analysis shows that factors that favor high-share brands are purchase decision involvement, search goods, experience goods, price–quality relationship, positive network externalities, and price–prestige beliefs. Conversely, consumers who value variety seeking and need for uniqueness favor low-share brands. The effects of these factors, however, vary across product categories. The identification of these characteristics can help brand managers establish a more effective brand-share strategy in such areas as setting an optimal market share goal, extending a brand, and developing ad copy. Furthermore, our consumer segmentation analysis demonstrates the general market has two distinct segments – (1) a segment composed of HSB buyers (86%) and (2) a segment composed of LSB buyers (14%). The two segments are also shown to have different significant factors that explain their brand choice. Our segmentation analysis can help marketers establish a marketing strategy that targets a specific segment of interest.

Keywords: Brand Share, Consumer Perception, Cross-category Analysis, Hierarchical Bayesian Regression, Consumer Segmentation

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1. Introduction

Quite often, we get to read a business article about a brand that faces downsizing due to overexpansion that grows beyond demand. Recent examples of such a case include Gap Inc. [22] and Krispy Kreme [3]. These examples imply that each brand may have a market share limitation due to different consumer wants and needs for the same product. It allows for a coexistence of high and low share brands in a product category. Accordingly, it may be wiser for marketing managers to attempt to optimize their brand share based on their brand customer base and marketing resources than blindly maximizing it.

Overall, market share is a key indicator of past performance and future potential [1]. In particular, brands with high market shares have a competitive advantage for various reasons, such as production costs, distribution [4], and consumer awareness [17]. Furthermore, several studies confirm a positive relationship between market share and profitability [25, 28]. Most research in this domain has relied on brand-level aggregate data (e.g., PIMS) [14]. As a result, the role of individual consumers as active decision makers of brand choice has not been fully acknowledged.

On the basis of this observation of the domain, we present two studies that investigate factors that influence individual consumers' choice between high-share brands (HSBs) and low-share brands (LSBs) across various product categories. Indeed, consumers' brand preferences and choice eventually determine the market share of each brand. In contrast, literature provides evidence that brand market share information itself can influence consumers' perceptions of the brand [1, 13], which in turn influence brand share. Although prior literature provides valuable insights, we find a number of fragmentary clues to the relationship between brand share and consumers' brand-share perceptions. For example, positive network externalities work in the HSB's favor [16], whereas people can be satisfied by having a unique brand owned by few people [29]. In addition, most studies investigate only one or two moderating factors at the aggregate brand level without fully considering a wide variety of product characteristics and consumer characteristics that can play a significant role in the HSB vs. LSB choice.

In our research, we aim to provide a comprehensive view of factors that can influence the relationship between brand share and consumers' perceptions by simul-

taneously considering various product and consumer characteristics related to brand-share perceptions. The identification of these characteristics will help brand managers establish a more effective brand-share strategy in various areas (e.g., setting an optimal market share goal, extending a brand, developing ad copy). For instance, marketers can highlight and utilize key determining consumer characteristics identified in our study to advertise and promote their own brand according to whether it is HSB or LSB. More specifically, an LSB manager can emphasize consumer need for uniqueness in her ad copy, whereas a HSB manager can emphasize price-prestige beliefs.

Furthermore, we hypothesize that a comprehensive picture of brand share and consumer perceptions can vary across product categories [13, 27, 32]. Therefore, we extend the relationship framework of an individual category to multiple categories using the hierarchical Bayesian (HB) regression framework. In the hierarchical framework, we estimate consumers' general level responses in addition to category-specific responses. Furthermore, the framework presents a cross-category comparison of the relationship between brand share and consumer preferences. We hope that our *category-specific analysis* of the relationship can shed light on what consumer and product characteristics should be highlighted in understanding the relationship in the given category. For example, for some categories that are high in purchase decision involvement (e.g., PCs, refrigerators), customers who value the price-quality relationship will tend to choose HSBs. Conversely, for some categories that are low in purchase decision involvement (e.g., napkin, gum), customers who are unconscious of price can more easily try LSBs. It is also important to understand different consumer segments and how each segment uniquely behaves in the choice between HSB and LSB. Using the latent class methodology, we investigate what distinct segment markets exist under such a choice decision.

In summary, our contributions to the literature are fourfold. First, our research mainly focuses on consumers, whereas prior research has focused mostly on brands [13, 32]. Such a consumer-level analysis provides an in-depth understanding of the relationship between brand share and consumer preferences. Second, we investigate under what circumstances brand-share information affects consumers' brand preferences by simultaneously considering various product and consumer characteristics. Compared with most previous studies that consider only one or two factors in the relationship, our approach provides an expanded view of the relationship. Third, the product categories we include in our studies differ greatly in terms of the purchase

decision involvement (PDI), which enables us to understand the differential effects of various consumer characteristics across those products. Finally, we investigate what distinct segment markets exist in the HSB vs. LSB choice decision to help marketers establish a marketing strategy that targets a specific segment of interest.

2. A Review of Brand Share and Consumer Preferences

Our review of the literature suggests that information on market share of alternative brands can influence brand preferences either positively or negatively. Notably, many theories are related to or overlap with one another.

2.1 Factors That Favor HSBs

2.1.1 Positive network externality

“There are many product for which the utility that a user derives from consumption of the good increases with ... the number of other users in the same network” [16, 20: 133]. Computer software, Internet chat rooms, and video games are common examples of the positive network externality that benefits the market leader. Word-of-mouth is an effective way to strengthen this effect [5]. The effect makes consumers favor HSBs.

2.1.2 Search goods and experience goods

For search goods (e.g., clothing), potential buyers can examine and determine product quality before purchase. For experience goods (e.g., fragrances, restaurant meals), quality cannot be determined before purchase [23]. For credence goods (e.g., medical diagnosis), quality cannot be determined even after purchase [8]. Therefore, we hypothesize that the more experience (or credence) characteristics are in the product, the more consumers rely on market-share information. However, one consumer’s experience good may be perceived by another consumer as a search good. For example, “Tourists usually choose relatively crowded restaurants and avoid empty ones” [6: 221]; knowledgeable locals may choose to do the opposite. Thus, the market leader’s advantage depends not only on the product category but also on the consumer (e.g., expertise or experience with the product category).

2.1.3 Uncertainty, risk, or insufficient information or knowledge

Brand choice almost always entails uncertainty or risk as a result of the consumer's lack of product knowledge and brand-specific information [12]. All other things being equal, buyers will choose the HSB because it is used by a majority of people and can be perceived as a low-risk choice.

2.2 Factors That Favor LSBs

2.2.1 Need for uniqueness

People differ in the amount of value they place in having a unique brand. People who score high in the consumer need for uniqueness (CNFU; Tian, Bearden, and Hunter [29]) category tend to favor LSBs in most product categories. In a similar vein, when the expression or communication of a high social status is an important motivation for product purchase, consumers will try to avoid overexposed brands [31]. For example, Merrick and Ellison [22: B1] note that "shoppers eventually wanted to wear something different from the colleague in the cubicle next to them." According to Kirmani, Sood, and Bridges [18], owners of premium-brand automobiles dislike their brands being owned by many others. In these cases, and beyond a certain level, brand popularity is considered a disutility to the owner, and thus this type of consumer will avoid such an option. In these circumstances, HSBs is at a disadvantage.

2.2.2 Variety seeking

Unlike the need for uniqueness, an individual trait variable that is expressed across a wide range of product choices, variety seeking or novelty seeking behavior is generally limited to certain product categories (e.g., vacation destination, breakfast cereals) [21].

2.2.3 Preference heterogeneity

In some product categories, consumers do not weigh others' judgment to a great degree because they know that preference (or taste) for the product varies widely [10]. For example, one person's music can be another person's noise. This factor benefits LSBs and can lead to multiple LSBs, each of which serves a distinct consumer segment [30].

2.3 Other Relevant Factors

The factors we discussed thus far have clear implications in that they favor either

HSBs or LSBs. The following factors are likely to play a role in the consumers' brand perceptions, but their roles seem to be complex or unclear.

2.3.1 Purchase Decision Involvement (PDI)

Consumer involvement in product purchase can differ widely. For most low-involvement products, the amount of uncertainty and risk can be low, which makes brand choice itself largely inconsequential. That is, consumers do not have much to lose when purchasing low-involvement products. Two scenarios are possible. First, brand-share information may cause consumers to shortcut the purchase decision, which thus favors HSBs. Second, consumers may consider brand-share information irrelevant, which thus eliminates the HSB advantage. In contrast, when the level of involvement is high, consumers may be willing to consider the purchase decision more thoroughly. For example, "social proof ... provides a convenient shortcut for determining how to behave," but highly involved consumers may not respond to social proof in a "mindless and reflexive fashion" [7: 116]. In summary, the effects of involvement are not straightforward.

2.3.2 Demographics

Consumer demographics are likely to moderate the relationship between brand share and consumer perceptions (e.g., income, sex, age). For example, in general, younger consumers may be more likely than older consumers to choose LSBs because they have a stronger need for uniqueness. Older consumers may be more risk averse and thus may consider LSBs to be a higher risk alternative.

3. HSB vs. LSB Choice Model: Cross-category Model

We administered two successive surveys to generate data appropriate for our study of the HSB vs. LSB choice. We administered the first survey as a pilot survey to the second survey (main survey). The purposes of the pilot survey that contacted adult consumers were twofold. First, the survey was intended to measure how consumers' preferences between HSB and LSB differ across diverse product categories. Second, the study asked consumers *why* they would prefer either HSB or LSB. This pilot survey confirmed that the preference advantage of HSB differs by the product category.

Most importantly, *based on their answers to why they would prefer either brand, we selected influencing factors that were used in our main survey that follows.* Furthermore, we conducted a reliability test to classify a variety of reasons from the pilot survey in a systematic manner.

3.1 Main Survey

In this main survey, we administered the survey to a convenience sample of adult consumers in the Northeast region of the United States. Paid research assistants and college students who volunteered for extra course credit solicited participations on and off campus. A strict age quota was imposed among four age groups—20s, 30s, 40s, and 50 and over— so that each group had approximately one-fourth of the total participants. A graduate research assistant randomly contacted one-fourth of the participants to verify completed surveys. The sampling procedure generated 550 valid questionnaires; 51% were from female respondents.

The survey inquired about eight product categories varying in terms of purchase decision involvement: personal computers, refrigerators, automobiles, winter coats, khaki pants, fragrances, paper napkins, and chewing gum. The questionnaire was composed of four major parts. The first part inquired about consumers' product characteristics *perceptions* (e.g., purchase decision involvement, network externalities). For example, we inquired about respondents' *perception* of experience goods (questions item: Only after an actual use or experience, consumers can determine the quality levels of products in this category.) The same questions were repeated for all eight products. The second part collected the dependent variables, that is, consumers' choice between HSB and LSB in each category with a seven-point scale (1 = "definitely Brand A," 4 = "indifferent," and 7 = "definitely Brand B"). Respondents were told that Brand A had a 10% market share (i.e., LSB) and that Brand B had a 50% share (i.e., HSB). *It should be noted that we used hypothetical brands the only information of which was the brand share in the given category. This is for eliciting unbiased reactions pertaining to the brand share from respondents and, concurrently, for avoiding an unintended influence of the known brand.*¹ The third part inquired about consumers' characteristics

¹ Survey respondents may associate the brand share information with the price level of the brand, but the direction of the relationship is not clearly known. For instance, HSB can be perceived as expensive when high quality increase the brand share and respondents believe

in three areas – need for uniqueness, price consciousness, and price–prestige belief. The fourth part consisted of two demographics questions: sex and age (see Table 1).

3.2. Analyses and Results

3.2.1 Choice predictors

To investigate the effects of the predictors on consumers' choice between HSB and LSB, we developed a hierarchical Bayesian (HB) linear regression model that simultaneously embraces the eight product categories in the main survey [2, 26]. From the survey results, we observe the brand evaluation (y) of each respondent (r) for each category (c) on a seven-point scale, where 1 indicates "definitely choose LSB," 4 indicates "completely indifferent between both brands," and 7 indicates "definitely choose HSB." In addition to the dependent variable (y_{cr}), we observe each respondent's responses to the product characteristics perception items (P) and the consumer characteristics items (Q). Note that the product characteristics perception items vary across the categories (P_{cr}) but that the consumer characteristics items remain the same across the categories (O_r). Thus, the consumer characteristics items vary across the respondents only. The proposed HB model takes the following equation:

$$y_{cr} = \alpha_c + P_{cr}\beta_c + Q_r\gamma_c + \varepsilon_{cr} \quad \varepsilon_{cr} \sim i.i.d. \ N(0, \sigma_c), \quad (1)$$

where *i.i.d. N* indicates the identical and independent normal distribution, and α_c is a category-specific intercept. The regression parameters for the vectors $\beta_k = [\beta_{k1}, \beta_{k2}, \dots, \beta_{k8}]'$ and $\gamma_k = [\gamma_{k1}, \gamma_{k2}, \dots, \gamma_{k8}]'$ go across all eight product categories, for each regression parameter k respectively. The two subscripts in β_{kc} indicate predictor k and category c . Furthermore, it is assumed that the collection of regression parameters in the vector $\theta_k = [\beta_k' \ \gamma_k']$ follow the multivariate normal distribution (MVN) across all the predictors as follows:

there is a positive price-quality relationship (e.g., iPod). Conversely, LSB can be perceived as expensive when a high price can make the brand unaffordable to normal consumers (e.g., Benz). To account for the impact of the price and brand share association, we included three price related questions in the survey – (1) price-quality relationship, (2) price unconsciousness, and (3) price-prestige beliefs.

$$\theta | P, Q \sim i.i.d. \text{ MVN}(\gamma_p, \Sigma_p), \quad (2)$$

where γ_p and Σ_p are defined as the population means and variances-covariances [11]. A collection of the hyperparameters (θ) show the overall effects of the predictors on the dependent variable across the categories. The prior for γ_p follows the MVN and the prior for Σ_p follows the inverse Wishart distribution. We specify all the priors diffusely enough to minimize the impact of the priors and to maximize the impact of the data. We use this hierarchical Bayesian (HB) regression model in Equations 1 and 2 to estimate all the category-specific models simultaneously. The model can also pool information across categories in each question item (i.e., predictor), and accordingly, the estimates shrink toward the mean of the common-predictor estimates. In other words, for estimation, our model uses information not only from its own category but also from the other seven categories. Furthermore, it can provide overall parameter estimates that embrace all eight categories. The HB model estimation was conducted by WinBUGS (www.mrc-bsu.cam.ac.uk/bugs/welcome.shtml).

We summarize the HB regressions results in Table 1.² It is noted that we took the medians of the estimated values of 10,000 MCMC runs after discarding the initial 5,000 runs. The table indicates the sign of each parameter estimate along with its significance at the .05 (**) or .10 (*) level. We do not express the specific estimate values because our main purpose of the model estimation is to identify significant predictors in consumers' preferences between HSB and LSB. The "+" sign indicates that respondents prefer the LSBs for the product category in association with the predictor, and the "-" sign indicates their preference for the HSB. We examine the model results at two levels – the overall level and the category-specific level. At the overall level (the "Overall" column in Table 1), only 8 of the 17 predictors were significant at the .10 significance level. Among the 8 significant predictors, 6 predictors (purchase decision involvement, search goods, experience goods, price-quality relationship, positive network externalities, and price-prestige beliefs) led to the HSB choice. By contrast,

² We included logically obvious factors such as preference homogeneity, variety seeking, positive network externalities, and need for uniqueness to explain the HSB and LSB choice to measure the impact degree of these factors on the choice. There are two variation sources that contribute to the degree. First, respondents vary in valuing these factors even though the direction is unquestionably the same for most respondents. Second, the degree will vary across categories. Our cross-category analysis is aimed to measuring the varying degree across categories.

only 2 predictors (variety seeking and need for uniqueness) led to the LSB choice.

On the other hand, significant factors vary across the 8 categories. The cross-category variability is more pronounced in 4 variables (purchase decision involvement, experience goods, price-quality relationship, and positive network externalities) out of the 8 variables significant at the overall level because consumers perceive these factors differently among categories. The preference level of the HSB differed markedly across categories as well. By contrast, two significant consumer characteristics factors (need for uniqueness and price-prestige beliefs) do not vary much across the categories because respondents' evaluations of the consumer factors do not vary across categories. Furthermore, it is noted that some factors (i.e., search goods, credence goods, price-quality relationship, price unconsciousness, and gender) turned out to be significant in only one or two product categories.

Importantly, we can classify the eight categories in terms of the 5-point purchase decision (PDI) rating (automobiles 4.48, personal computers 4.09, refrigerators 3.67, fragrance 3.66, winter coats 3.62, khaki pants 3.19, chewing gum 2.66, and paper napkins 2.18). Category-specific average PDI ratings are next to each category in the parenthesis. We determine the distinction between high (i.e., automobiles, personal computers, and refrigerators), medium (fragrance, winter coats, and khaki pants), and low (i.e., chewing gum and paper napkins) involvement products on the basis of the rating. The three high involvement products can be considered functional products for which people seek better quality rather than satisfy individual tastes. This is confirmed by the finding that the price-quality relationship is significant in personal computers and refrigerators with an exception in automobiles. (The variable is not significant for all the medium and low involvement products). We speculate that the variable was not significant in automobiles because product differentiation and prestige are important as a public good frequently exposed to other people unlike personal computers and refrigerators. Conversely, for the two low involvement products (i.e., gum and napkins), price unconsciousness influenced consumers to choose LSB but not in the other six products. This implies that consumers are willing to purchase relatively unknown brands (i.e., LSB) because the purchase is less risky in such cheap products. In summary, for some categories high in purchase decision involvement (e.g., PCs, refrigerators), the price-quality relationship will motivate consumers to choose HSBs. Conversely, for some categories low in purchase decision involvement (e.g., napkin, gum), product unconsciousness will motivate consumers to try LSBs.

Table 1. Cross-category hierarchical Bayesian regressions

	PC	RE	AU	WC	PA	FR	NA	GU	Overall
Intercept	2.61**	2.84**	3.05**	3.58**	3.57**	3.67**	3.67**	3.68**	3.33**
<i>Product Category Perceptions (Involving Product Purchase Situation)</i>									
Purchase Decision Involvement	.162**	.170**	.108	.101	.188**	.081	.137**	.081	.129**
Technical complexity	.016	.022	-.049	.070	.012	.019	-.065	.008	.004
Risk	.036	.009	.018	.031	.009	.063	.018	.031	.027
Search goods	.041	.052	.071*	.031	.035	.053	.020	.028	.042*
Experience goods	.052	.087**	.070*	.094**	.062	.083**	.079**	.086**	.077**
Credence goods	-.014	.016	.054	.101*	-.001	.094*	-.029	-.060	.020
Price-quality relationship	.078**	.063*	.012	.053	.050	.025	.046	.052	.047*
<i>Product Category Perceptions (Involving the Consumer's Preference)</i>									
Preference homogeneity	.072	.056	.006	.012	.008	.003	.042	.019	.026
Variety seeking	-.182**	-.180**	-.139**	-.117**	-.138**	-.107**	-.153**	-.137**	-.144**
Product knowledge /experience	-.052	-.039	-.082	-.091	-.037	-.042	.071	.055	-.027
Choice confidence	-.027	.009	-.029	-.023	-.011	.003	.035	-.024	-.009
Positive network externalities	.060*	.020	.070*	.063	.077**	.069*	.031	.036	.053**
<i>Consumer Characteristics (Psychological)</i>									
Need for uniqueness	-.319**	-.324**	-.424**	-.358**	-.390**	-.296**	-.090	-.122*	-.291**
Price unconsciousness	-.016	.006	-.019	-.015	-.044	-.002	-.084**	-.064*	-.030
Price-prestige beliefs	.170**	.160**	.148**	.132**	.165**	.141**	.156**	.150**	.153**
<i>Consumer Characteristics (Demographic)</i>									
Gender (male = 1; female = 2)	.093	.063	.113	.119*	.047	.062	.042	.060	.074
Age	.015	-.013	.029	-.010	-.026	-.029	.005	-.010	-.005

* p-value < .10.

** p-value < .05.

Notes: (1) Product Category Abbreviations: PC = personal computers, RE = refrigerators, AU = automobiles, WC = winter coats, PA = khaki pants, FR = fragrances, NA = paper napkins, and GU = chewing gum.

(2) "+" indicates that the high-share brand (HSB) is preferred for the product category; "-" indicates that the low-share brand (LSB) is preferred.

(3) The p-values in this table are based on a region of highest posterior density because the model is a Bayesian model. It is comparable to the p-values in a frequentist model.

(4) Evaluation Scales: The dependent variables of choosing between HSB and LSB are a 7-point scale whereas all the independent variables (except for Gender and Age) are a 5-point scale.

3.2.2 Consumer segmentation

The results of Table 1 are at the general market level without segmentation, which is an average of multiple heterogeneous consumer segments. It is important to understand different consumer segments and how each segment uniquely behaves in the choice between HSB and LSB. This subsection examines significant differences between potential consumer segments in the context of the HSB and LSB choice. The customer segmentation analysis can help marketers establish a marketing strategy that targets a specific segment of interest. Thus, target-specific marketing strategies are more effective than general strategies that are intended to satisfy every consumer.

Toward the end, we apply the latent class methodology [15]. The methodology generates both segment-specific parameter estimates and posterior membership probabilities. Posterior membership probabilities indicate the likelihood that each consumer belongs to each segment. In the latent class analysis, we assume that a consumer repeats his or her preference rating between HSB and LSB across the eight categories. Accordingly, the category distinction is ignored, and we focus on customer segmentation in consumers' overall responses. The other aspects of the HB model remain the same in our latent class analysis. To determine the number of segments, we ran the model for different numbers of segments. The latent class model with two segments was the best model in terms of the Bayesian information criterion value. In addition, the fit of entropy of the two-segment model was .84, which suggests that most consumers have posterior probabilities that strongly favor one of the two segments over the other. In other words, survey respondents were clearly assigned to one of the two consumer segments.

Table 2 shows the parameter estimates of each segment from the two-segment model. The two segments had exactly the same 17 variables that we used for the HB model. We highlight the following points from Table 2. First, Segment 1 has 86% of all the respondents and Segment 2 has the other 14%. Therefore, the impact of Segment 1 on the total market is greater because it constitutes the absolute majority; however, marketers cannot ignore the minority segment. Logically, different marketing strategies need to be developed to target each segment. The need to develop such strategies becomes clearer when we compare the differences of the estimate results between the two segments. Specifically, Segment 1 shows 10 significant predictors at the .10 significance level compared with 8 significant predictors in Segment 2.

Although all the estimate values are different between both segments in the same

predictor, Segment 1 strongly favors the HSB over the LSB in positive network externalities, whereas Segment 2 strongly prefers the LSB in variety seeking. The network externalities predictor implies that consumers in Segment 1 generally prefer the HSB when the brand has strong network externalities. This aspect will naturally strengthen the leading position of the HSB in the market. In addition, consumers in Segment 1 tend to use the product heavily in association with the product knowledge/experience predictor (relevant question item: I use this product very frequently or very heavily.). Notably, this result confirms the widespread double-jeopardy (DJ) phenomenon [9]. The double-jeopardy phenomenon indicates that a small brand has far fewer buyers than a large brand and that its buyers tend to buy it less often. The phenomenon is just the flip side of our result from the product knowledge/experience predictor in Segment 1. Conversely, consumers in Segment 2 (the LSB segment) tend to prefer the LSB due to their preference heterogeneity, variety seeking, and need to uniqueness. (Note that the positive sign for preference homogeneity implies that consumers who value preference homogeneity prefer the HSB. That is, consumers who value preference heterogeneity prefer the LSB in Segment 2.) Especially, the preference heterogeneity and need to uniqueness predictors strongly imply that the LSB is preferred by consumers who want to be different from other consumers. It is noted that the difference between the two segments is the most pronounced in the purchase decision involvement (PDI) predictor because both segments are significant in the predictor with the opposite sign. Specifically, the combination of its positive sign in Segment 1 (HSB segment) and its negative sign in Segment 2 (LSB segment) implies that consumers taking the purchase decision more seriously (i.e., consumers who rate high on the PDI variable) are more likely to purchase HSB because it is perceived a safer choice than LSB. This result highlights our position that marketers should develop a different marketing strategy for each segment, especially in association with purchase decision involvement.

As a follow-up analysis to our main customer segmentation analysis in Table 2, we further investigated brand evaluation patterns of the two segments. As Table 3 shows, in most product categories, consumers from the two segments have significantly different evaluations between HSB and LSB with only two exceptions (paper napkins and chewing gum). Notably, the two exception categories are low-involvement products. In the other six categories, consumers in Segment 1 tend to prefer the HSB, whereas those in Segment 2 tend to prefer the LSB. Therefore, we

Table 2. Two-segment latent class model estimates

		Segment 1 (HSB Segment)	Segment 2 (LSB Segment)
<i>Product Category Perceptions</i>	Purchase Decision Involvement	.1820**	-.4359**
	Technical complexity	.0740**	.1774**
	Risk	.0280	.0187
	Search goods	.0137	.1840**
	Experience goods	.0772**	.0979
	Credence goods	-.0254	.1106
	Price-quality relationship	.0879**	.0007
	Preference homogeneity	.0810**	.2897**
	Variety seeking	-.0241	-.2133**
	Product knowledge/experience	.0420*	.0358
	Choice confidence	-.0389*	-.1491**
	Positive network externalities	.1197**	.1005
	<i>Consumer Characteristics</i>	Need for uniqueness	-.2569**
Price unconsciousness		-.0178	.0617
Price-prestige beliefs		.1749**	.1775**
Gender (male = 1; female = 2)		.0385	.1994
Age		-.0230	-.0283
Segment Proportion		86.1%	13.9%

* p-value < .10.

** p-value < .05.

Notes: (1) Fit of entropy = 83.7. The high value indicates that most consumers have clear memberships between the two segments in the latent class model.

(2) "+" indicates that the high-share brand (HSB) is preferred for the product category; "-" indicates that the low-share brand (LSB) is preferred.

Table 3. Brand evaluation analysis by the segment and the category

Product Category	Segment Means ^a		Significance of Mean Difference (p-value)
	Segment 1 (HSB Segment)	Segment 2 (LSB Segment)	
Personal computer	4.53	3.58	.00
Refrigerators	4.29	3.36	.00
Automobiles	4.29	1.60	.00
Winter coats	3.68	1.50	.00
Khaki pants	3.65	1.90	.00
Fragrance	3.55	1.63	.00
Paper napkins	3.34	3.26	.62
Chewing gum	3.34	3.12	.12
Overall	3.84	2.49	.00

Note: ^aOn a seven-point scale, where 1 = "definitely choose low-share brand (LSB)," 4 = "completely indifferent between both brands," and 7 = "definitely choose high-share brand (HSB)."

conclusively label Segment 1 as the HSB segment and Segment 2 as the LSB segment. The results explain why Segment 1 takes the absolute proportion of the total market (86%). That is, the brand preferred by most consumers is the HSB. This result shows the validity of our analysis.

4. General Discussion

All other things being equal, in most cases, consumers may prefer high-share brands (HSBs) to low-share brands (LSBs). In such cases, from brand managers' standpoint, HSBs can enjoy an advantage over LSBs. Our studies demonstrates *when* the HSB advantage holds and does not hold. In association with various product perception characteristics, preference advantages of HSBs vary significantly in multiple categories. Overall, we show that there are differential preferences associated with the brand-share information in three dimensions: consumer perceptions of a given product category, consumer characteristics, and the categories with which consumers deal. To measure the influences of those predictors on brand choice, we ran hierarchical Bayesian (HB) regressions that simultaneously included eight product categories. This cross-category regression shows that factors favoring HSBs are purchase decision involvement, search goods, experience goods, price-quality relationship, positive network externalities, and price-prestige beliefs. In contrast, consumers who value variety seeking and need for uniqueness favor LSBs. To some extent, the effects of these factors vary across product categories (Table 1). Our segmentation analysis provides a further and deeper insight into what motivates consumers' choice between HSB and LSB (Tables 2 and Table 3). In particular, our segmentation analysis identifies two distinct segments in terms of choice of HSB and LSB; one segment constitutes HSB consumers and the other segment constitutes LSB consumers.

Our research findings provide useful ideas for and insights into brand-share strategies and tactics in various areas (e.g., setting an optimal market share goal, extending a brand, developing ad copy). For example, when a company sets an optimal market share goal, they can consider how their brand is perceived by their target consumer segment for brand expansion [24], which will determine whether the expansion target segment is appropriate. Also, specific significant predictors for the given

category can be emphasized in developing ad copy. For instance, HSB managers can emphasize the price-quality relationship for personal computers and refrigerators, whereas LSB managers can take advantage of consumers' price unconsciousness for some low involvement products (e.g., napkin and gum).

In our consumer segmentation analysis, we show that brand managers should develop more refined strategies that are specific to each consumer segment in terms of how each segment reacts to brand-share information in brand choice. In particular, Table 3 shows that brand evaluation differences between the two segments are strongly significant in six of the eight categories. The two categories that were not significant (paper napkins and chewing gum) were the two lowest products in purchase decision involvement. This result accentuates the importance of developing segment-specific marketing programs that are customized to the category's specific relationship between brand share and consumer preferences, especially for high-involvement products. In brief, our segmentation results provide specific information regarding what characteristics should be highlighted for HSBs and LSBs, respectively.

On the other hand, even though most consumers have a rough estimate of their favorite brands' market share, not all consumers are aware of the brand share status of competing brands in each category. When brand managers can disseminate such brand share status information to an appropriate segment, the knowledge may sway some customers in their favor. Specifically, a LSB (e.g., luxury designer jeans *Seven For All Mankind*) manager can emphasize the fact that their brand is not possessed by many people in targeting Segment 2 (LSB consumers) in Table 2. Conversely, a HSB (e.g., *Dell* computers, *Nike* shoes) manager can reveal that it is the leading brand in the category and being used by many people like "you."

Lastly, our study implies that brand managers should attempt to *optimize*, rather than maximize, their brand's market share in association with profitability [14, 19]. This is because brand expansion efforts beyond a certain level of market share may backfire and eventually make marketing programs less efficient and, thus, less profitable. This notion of optimal market share may be able to prevent disasters caused by brand overexpansion that goes beyond consumer demand (e.g., Gap Inc. Merrick and Ellison [22], Krispy Kreme [3]).

We acknowledge that there are several limitations of our research. First, we did not consider potential interaction effects between the brand perception predictors. In a similar vein, there can be a quadratic (or U-shaped) effect along the range of some

predictors, which was not tested in our regression model. Second, our analysis included only physical goods. We did not examine how consumers behave for service products. Third, our analysis did not investigate the relationship between brand share and profitability, which is important to brand managers. Such an extension would generate more useful managerial implications.

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