Original Article

Consumer choice and preference for brand categories

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ABSTRACT In this study, we explore how the entrance of new international brands affects market dynamics in a market where national, international and private brands are present. The entire focus of the present research is to understand the phenomena of consumer choice and preference in the backdrop of such a market. We model consumer choice in the context of these different categories of brands by using a multinomial discrete choice model. The estimated model provides us with several diagnostic findings of managerial interest especially with respect to what kinds of product attributes differentially affect choice probabilities of different categories of brands – the international, the national and the private.

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INTRODUCTION

In growing economies especially for common frequently purchased products (for example, soaps, shampoos, toothpastes and so on.), the market often contains both private and national brands. A private brand is likely to come from a small local manufacturer or a local retail chain. A national brand on the other hand, is also a domestic brand but is a much larger player in the country, and typically spends substantially more on marketing expenses than a private brand. As the economy continues to emerge and consumers prosper along with that, the market now becomes attractive to global

companies who often possess in their product lines, brands of international repute; such a brand if present in an emerging market can be viewed as an international brand. In the current research we use a choice modelling approach to empirically examine the very interesting dynamics between the categories of international brands, national brands and private brands.

Firms are increasingly expanding globally as they realize that this is a significant source for potential sales and profits growth. For instance, the share of global trade has increased significantly over the recent past at 6 per cent annually between 1990 and 2008

compared with a 3.1 per cent growth in world GDP (WTO, 2011), indicating the importance of such activity to firms.

The increased activity of firms in the global arena has created a challenge for international marketers as they need to compete against local products in diverse consumer markets and segments. Specifically, once introduced into a new country, an international brand needs to be positioned against local operating brands. The task of identifying appropriate brand positioning strategies, is a complex one as it involves different local brands that, in some cases, have never been considered as competitors by the company marketing the international brand. Furthermore, consumers in a different country are likely to significantly vary in their preferences and perceptions compared with those in the home country market of the international brand. Among other things, variations in the cultural backgrounds of consumers in different countries might have a significant impact on their preferences for international and local brands.

The increased popularity of global brands, and the relatively similar big city customer profiles across countries (Quelch, 1999) are having an effect on the way marketers view the attractiveness of international markets. If marketed well overseas, such brands can not only be revenue generators in the short run, but also have the potential to avail of at least some economies of scale across countries in the long run. The key to marketing well of course is to be able to compete well with others including existing local brands such as national and private brands.

A typical market is characterized by the presence of many different kinds of brands. Consumers have to make their own judgments about the properties of these brands before making a choice. In consumer markets, the origin of the brand often provides cues that help consumers in their choice-making process. One way to identify brand origins, for example, is to check whether it is a manufacturer brand or a

private label brand. Academic researchers are increasingly studying the dynamics of these two kinds of brands on actual choice (for example, Sethuraman, 1996). In advanced countries, these two types of brands are major players, and research has brought out interesting insights into how consumers react to them.

In other countries, which have been more recently exposed to international marketing, the situation is actually more complex. The presence of international brands, their own national brands and their own private brands often characterize such markets. Consumer perceptions and preferences with respect to this interesting mix of brand categories, have received little attention in the academic research literature.

Exploring of current brand positioning and preference in such countries where introduction of international brands occurred in the relatively recent past, might be a good approach for getting more insights into the dynamics of international brands. In other words, such countries present an opportunity for academic researchers to examine how the market changes after some years have elapsed since the introduction of such international brands. It would also provide a base to forecast market dynamics in new similar markets.

The literature has mainly focused on category competition between local brands (that is, between national and private brands). There is relatively little research, however, that explores the driving forces behind brand preferences for international brands in international markets in the backdrop of consumers' choice between international and domestic brands. Issues such as identification of the salient product characteristic-types that drive brand preference and choice, and variations in such salencies and effects in the presence of consumer segment heterogeneity, have not been fully addressed. The purpose of this study, therefore, is to fill this void in the literature by analyzing the preference

formation and choice between the categories of international, national and private brands.

In the present research, we use data from the Israeli market to examine this scenario. In Israel, the sequence of brand introductions was the following: First came national brands, then private labels and more recently, international brands. It is logical to expect that consumers would react differently to the positioning of these brand classes. Their perceptions of the brands' positionings should also affect consumer choice patterns. This article explores these aspects.

The characteristics of international brands have been discussed by Quelch, 1999. Similarly, Nandan and Dickinson, 1994 have outlined the properties of private brands. Of course, there is no dearth of articles on national manufacturer brands. However, there is very little research on how consumer choice is affected by the unique qualities of these different brand categories in an emerging market. Here, we try to fill this gap in the literature.

In order to study this problem, we use a choice modelling approach, employing the multinomial logit model. We use the choice model to uncover salient attributes that are involved in consumers' choice decisions. Estimation of the model provides interesting insights into how different product attributes drive choices often differently for different categories of brands. Such diagnostics lead to useful managerial implications. We also use a preference regression approach to uncover the preference drivers for the three different categories of brands.

In the next section of the article, we provide a background of our research and draw on the literature to develop some theory and a set of hypotheses. The following section contains a description of our model and the data used to estimate the model. Next, we report the results of our empirical analysis. We end the article by summarizing our findings and highlighting the managerial implications.

BACKGROUND

In the marketing literature, there has been extensive investigation of national brands and the emergence of private brands and generics (Blattberg & Wisniewski, 1989; Mulhern & Leone, 1991; Blattberg *et al*, 1995; Sethuraman, 1996). These studies were mainly concerned with promotional schemes, price differentials and so on. In addition researchers have investigated consumers' perceptions of national, private and generic brands to better understand the differences and similarities between them (Bellizzi *et al*, 1981; Wilkes and Valencia, 1985; Nandan and Dickinson, 1994; Prendergast and Marr (1997)). Using this type of information, some authors have suggested marketing strategies for these types of brands (for example, Lal, 1990). However, relatively little work has been done on what drives consumers' preferences and choices toward such brands; in particular the issue of how product attributes affect consumers' preferences and choice remains less explored.

Yet, another dominant characteristic of this research stream is the context of this research. Most of these investigations have been focused on established markets, such as the U.S., where most of the dominant brands are local brands (that is, marketed mainly in the U.S.), and where there is presence of private brands and generics (McGoldrick, 1984, Harris and Strang, 1985). The issue of brands' preferences however, is also very relevant in the case of a changing marketing environment in emerging markets where the market experiences an increase in the heterogeneity of the brand category offerings. This includes an increase in the variety of the brands' offering (that is, new international brands), and an increase in purchasing power coupled with an increase in media exposure (that is, more TV channels, international broadcasting, and so on.), that increases exposure of consumers to international brands. It is evident that in markets, like

the new 'emerging' ones, such as in Eastern Europe and Asia, the activity of international brands has intensified (for example, Berrell, 1995; Wall Street Journal, 1997; Malik, 1995; Rosen *et al*, 1989). The findings of this literature highlight the importance of successful introductions of brands abroad.

The introduction of new international brands in such an environment needs to be sensitive to cultural differences among consumers in a foreign emerging market. For example, consumers might have different attitudes with respect to the brands' country of origin. In our research we pay special attention to this issue.

In our study, we model consumers' perceptions about product attributes in order to be able to provide insights into the question of how product attributes affect consumers' preferences for different brand types. Specifically, we consider the case of the categories of international, national and private brands.

In order to depict the setting of an evolving market environment, we consider the Israeli market that experienced a process of deregulation and international brands' introduction relatively recently, and can be used as an approximation to the expected behaviour of other markets that may go through this process in the future. In the Israeli market, major structural changes and reforms in the economy occurred to increase the level of competitiveness in consumer markets. Additional TV channels were added, thus greatly increasing consumers' exposures to TV commercials in general, and to international brands in particular. Until then, there were only a few TV channels that did not have too many commercials. These types of de-regulations simultaneously increased consumers' awareness of international brands and affected their choice dynamics.

In different foreign markets, there are many cultural differences among consumers that can influence the success of international brand introduction in these countries. Although

marketers consider these differences, they are not fully explored (Roth, 1995). There is a thought that the broad main core attributes of brands can be kept across countries, and their execution can be adapted to local tastes (De Chernatony *et al*, 1995). Standardization and adaptation approaches should consider potential differences in preferences and attitudes toward local products.

Concentrating on the Israeli market enables us also to explore types of cultural differences among consumers that can be found in other markets, too, in terms of the level of importance of buying local products. Long ago, it had been advocated and promoted in Israel that buying is a 'good' thing to do. Even recently the ministry of industry and trade had launched a campaign that advocated the buying of local products (Chen, 2009). Along with an increased demand for local products, this act also alleviated some of the potential pressures to allow for the importing of foreign products. On the basis of this background, we believe that consumers will have quite a different perceptual perspective of the three brand types. We expect choice and preference differences between the low importance of buying local products segment and the high importance segment.

Theory & Hypotheses

In the present research, we will employ both choice modelling and preference regression approaches. In the choice modelling portion we will endeavour to identify the drivers that consumers use to choose between brands belonging to the categories of international, national and private. In the preference regression approach, the goal is to identify the cues that consumers may use to determine how much they like an international (or national or private) brand. Thus, the choice modelling results would indicate what cues brand managers should focus on when they are competing for market shares between international, national and private brand

categories. The preference regression results would indicate how a manager for an international (or national or private) brand should manage the brand drivers/cues such that consumer preferences for this brand independently or in comparison to other brands of the same category is enhanced; results from this would enable the manager of a new international brand to get an idea of how to manage the brand cues such that this new brand gets a higher preference than an existing international brand in the market. Choice modelling and preference modelling together would provide very useful complementary information for the brand manager.

Given the complementary, but different thrusts of choice modelling and preference modelling, we expect

Hypothesis 1: The drivers that show up as salient for the choice modelling would be different from those that get indicated by the preference analysis.

Cue utilization theory provides some insights about what kinds of drivers/cues affect consumer judgments of product quality. Richardson *et al*, 1994 use this knowledge to develop their hypotheses on consumer evaluations of national and store brands; we draw from their discussions to hypothesize the nature of cues that may affect choice and preference for the categories of brands we are examining in our current research.

Cues are usually classified as extrinsic or intrinsic (Olson and Jacoby, 1973) in nature. Extrinsic ones are external to the physical product itself, and examples would include packaging, price, brand reputation or brand equity. Intrinsic cues are those product attributes which when changed, will alter the physical properties of the product. Since these physical properties of the product are expected to be the some of the actual drivers of choice and preference, we focus on these and term them intrinsic drivers

or core attributes for the purpose of our present research. In the context of our study, we would like to separate the traditional extrinsic cues into the categories of brand equity or reputation, price or distinct value and packaging, and investigate their roles as drivers of choice and preference.

The choice model analyzes the competitive dynamics between the categories of international, national and private brands. Richardson *et al*, 1994 mention that extrinsically store brands suffer from deficiencies relative to national brands. This is too well known to consumers and therefore we believe that consumers would not use the obvious to choose between the three brand types; thus extrinsic cues are unlikely to drive brand category choice at the aggregate market level. The difference in the qualities of the intrinsic attributes across the three brand categories however may not be that obvious *a-priori* to the consumer; we therefore believe that consumers would draw from marketing communications and other similar information to develop notions about the intrinsic attributes, and some of these intrinsic attributes would emerge as salient drivers of aggregate market level choice in the choice model based analysis.

Hypothesis 2: The choice model analysis for the aggregate market should indicate that some intrinsic cues are the primary drivers of brand category choice between the categories of international, national, and private; extrinsic cues should not affect choice substantially.

The preference analysis indicates what attributes consumers use to develop a degree of preference for a particular brand category; naturally different drivers could be salient for each of the three brand categories. We conduct our empirical analysis with data from an emerging market with relatively recent entries of international brands compared with the longer existence of national and private brands. Hence, we believe the consumer will expend some effort to cognitively judge

the nature of the international brand, and therefore we expect that she/he will use a number of different cues ranging from the intrinsic to extrinsic to identify her/his preference level for the international brand category. The private brand category is at the other end of the spectrum from international brands. When consumers assess a particular private brand independently or as compared with other private brands, it does not make sense for them to focus on packaging or price for this evaluation; it would make sense for them though to use some heuristics about their overall notion about the brand reputation or equity to make a preference judgment. Given that private brands typically would not put out informative type of advertising, consumers would not be aware much about the intrinsic cues of the private brand; hence intrinsic cues are unlikely to be used for the preference judgment within the private brand category.

Hypothesis 3: The aggregate market preference model analysis for the international brand category should indicate that consumers use a variety of both intrinsic and extrinsic cues to make preference judgments; for the private brand category, preference judgments should be driven mainly by brand equity and reputation type attributes.

METHODOLOGY

Our analysis is conducted on international, national, and private brands of shampoo. We selected this category as it is one of the earlier categories to include all the three brand categories in this market.

Our modelling approach is based on two different methods. In order to examine consumers' choice we used a multinomial logit model (MNL) and for preference formation analysis, a linear regression was used. Logit type models are appropriate to use when the dependent variable is

categorical (for example, Roy and Ghose, 2006)

The MNL model is based on choice theory and falls within the category of random utility models (McFadden, 1974). We derive a probabilistic description of brand preference on the basis of product attributes for the three brand categories. In order to capture consumers' heterogeneity in terms of familiarity and usage levels among other things, and in terms of their cultural differences, we apply the model to two different segmentation schemes. The first is capturing the differences between males and females and the second is between different levels of importance of buying local products.

Data

To examine the differences in perceptions, choice and preference between the three different brand categories, we use data that was collected in a large southern town in Israel where we sampled individuals who were familiar with these three brand categories. This was done to avoid any possible biases because of respondent unfamiliarity. The respondents were asked to rate their perceptions of 9 different attributes for the categories of international, national, and private brands on a scale of 1 to 7, where 1 is very low and 7 is very high. The attributes used were: Scent level (very low to very high), Foam level reflecting – how bubbly it is (very low to very high), After use reflecting – how the hair feels after shampoo use (very low pleasantness to very high pleasantness), Packaging (very unattractive to very attractive), Variety reflecting multiple options like 'for normal hair' or 'for dry hair' (very low variety to very high variety), Texture of the shampoo (very low smoothness to very high smoothness), Price perception (very inexpensive to very expensive), perception of Vitamin content that would nurture the hair (very low content to very high content) and Reputation of that shampoo (very

low reputation to very high reputation). Respondents were also asked to make a choice from the three different brand types. In addition, the respondents were asked to state their preference levels separately for brands in these three different categories; a 7 point scale (do not prefer at all to prefer very much) was used for this. The attribute rating task, the choice task and the preference rating task were randomized across the respondents in our sample. Overall, our sample included 243 respondents.

The Model

The multinomial logit (MNL) model is a simultaneous compensatory attribute choice model incorporating the concepts of thresholds, diminishing returns to scale and saturation levels. The MNL estimates for each individual the individual's probability of choosing each alternative in the choice set. In addition, it allows for diagnostic information regarding the salient attributes involved in the choice formation process.

The MNL assumption is that the consumer's overall liking for an alternative is a function of the perceived relative utility of the alternative, as evaluated by the consumer. In addition, it is assumed that the utility function can be separated into: (1) a deterministic component (measured in terms of perceived value of the attributes of the alternative), and (2) a random error, which is independent and identically distributed (iid) across all individuals with a Weibull distribution.

Let $U_{ij} = V_{ij} + \varepsilon_{ij}$ denote the utility of individual i ($i = 1, 2, \dots, n$) from choosing alternative j ($j = 1, 2, \dots, m$), where V_{ij} is the deterministic component of utility and ε_{ij} is the random component of utility.

Thus, the probability, P_{ij} that an alternative j will be chosen from a set of alternatives j depends only on the deterministic component of the utility function, such that

$P_{ij} = \Pr[U_{ij=J} \geq U_{ij \neq J}, \forall j \in C_j]$, and

$$P_{ij} = \frac{\exp(V_{ij})}{\sum_{j=1}^m \exp(V_{ij})} \quad (1)$$

where $V_{ij} = \sum_{k=1}^K \alpha_k x_{ijk}$, α_k is the importance of the k^{th} attribute in the utility, and x_{ijk} is the rating of consumer i of attribute k for alternative j .

Thus, the deterministic part of the utility in our case is:

$$\begin{aligned} V_{ij} = & \alpha_1 \text{Scent}_j + \alpha_2 \text{Foam}_j + \alpha_3 \text{Afteruse}_j \\ & + \alpha_4 \text{Package}_j + \alpha_5 \text{Variety}_j \\ & + \alpha_6 \text{Texture}_j + \alpha_7 \text{Price}_j \\ & + \alpha_8 \text{Vitamins}_j + \alpha_9 \text{Reputation}_j \end{aligned} \quad (2)$$

and one needs to estimate the parameters α'_k s.

The preference regression model utilizes the same product attributes but estimates the relative importance of the different attributes in forming preference for the different brand categories separately as follows.

$$\begin{aligned} \text{Pref}_j = & \beta_1 \text{Scent}_j + \beta_2 \text{Foam}_j \\ & + \beta_3 \text{Afteruse}_j + \beta_4 \text{Package}_j \\ & + \beta_5 \text{Variety}_j + \beta_6 \text{Texture}_j \\ & + \beta_7 \text{Price}_j + \beta_8 \text{Vitamins}_j \\ & + \beta_9 \text{Reputation}_j \end{aligned} \quad (3)$$

where Pref_j is the preference for the j^{th} brand category where $j = 1, 2, 3$ and β'_k s – parameters to be estimated for $k = 1, \dots, 9$.

Table 1: Multinomial logit choice model coefficients: Aggregate sample

Variable	Parameter	Significance level
Scent	0.402	0.001
Foam	-0.238	0.034
After use	0.384	0.001
Package	0.030	0.738
Variety	0.055	0.598
Texture	0.132	0.167
Price	0.037	0.603
Vitamins	-0.113	0.254
Reputation	0.246	0.006
Log likelihood function	-172.5629	

RESULTS

In this section, we present the results of the MNL model for choice and the regression analysis for preference formation for the three different brand categories. In Table 1, the results of the MNL for the total sample are presented.

We can evaluate the results by dividing the different attributes into core and extrinsic attributes (De Chernatony *et al* (1995)). This type of analysis enables us to determine what component of the product has how much impact on the preference formation of consumers. Thus, we separated the product's attributes into: (1) brand equity (that is, reputation), (2) distinct value (that is, price), (3) core attributes or intrinsic cues (that is, shampoo-related attributes such as foam, scent, texture, and so on.) and (4) purely external attributes (that is, packaging). Items 1, 2 and 4 are different kinds of extrinsic cues.

It can be seen that scent, foam, after use, and reputation are significant at least at the 0.05 level. In other words, the core attributes of the product and its brand equity are salient in the choice process of the whole sample. In terms of goodness of fit, the model was able to classify correctly 71.2 per cent of the observations with respect to their chosen brand category.

Next, we analyze differences between males and females as presented in Table 2.

The results indicate that scent and foam are salient in the choice process of the male segment whereas scent, after use, texture, vitamin content and reputation are salient in the females' consumer segment. That is, males use only two core product attributes in their choice process for shampoo where women use multiple core product attributes as well as the brand equity attribute in their choice process. These differences clearly indicate that different marketing strategies can be effectively constructed for these two segments which will, for example, focus on the scent and foam of the shampoo for men (that is, highlighting the core benefits), whereas for women more sophisticated marketing communication strategies could highlight the branding and soothing aspects of shampoos.

The model was able to classify correctly 74.7 per cent of the observations with respect to their chosen brand category. To verify whether this segmentation scheme is meaningful (that is, whether separating the sample into males and females result in a better data fit than would an aggregate sample), we conducted log-likelihood tests, $-2 \log \lambda$, where $\lambda = (LL_{\text{segments}} - LL_{\text{aggregate}})$ (Gensch, 1985). The log-likelihood test, $-2 \log \lambda = 49.70$ is significant at the 0.001 level. This segmentation scheme, therefore, is meaningful in the sense that it was able

Table 2: Multinomial logit choice model coefficients: Male and female segments

Attribute	Males		Females	
	Parameter	Significance level	Parameter	Significance level
Scent	0.506	0.002	0.454	0.019
Foam	-0.352	0.046	-0.289	0.139
After use	0.949	0.579	0.783	0.001
Package	0.305	0.839	0.082	0.568
Variety	0.501	0.729	0.078	0.713
Texture	-0.926	0.466	0.692	0.001
Price	-0.591	0.520	-0.009	0.954
Vitamins	0.110	0.400	-0.508	0.010
Reputation	0.903	0.442	0.682	0.001
Log likelihood function	-89.1846	—	-58.5276	

to statistically significantly improve the model fit.

In the next step of the analysis, we analyze the effects of culture from a local buying perspective. As consumers in many countries vary in the degree to which they are accepting of international products into their market (Holt *et al.*, 2004), it is important to understand this potential source of consumer heterogeneity. This type of segmentation has been used to examine heterogeneity among consumers in other emerging markets such as China (Kwok *et al.*, 2006) and across countries (Hsieh, 2004). We operationalized this variable by asking respondents to rate on a scale of 1 to 7 how important it was for them to purchase local products. We grouped the respondents into three groups such that those respondents who rated importance as low were grouped into the low importance of buying local products (that is, those respondents who rated this variable below 3), those who rated this importance high on the scale were grouped into the high importance of buying local products group (that is, those consumers who rated this variable above 5) and those who rated this importance in the middle of the scale were grouped into the medium importance of buying local products group (that is, those consumers who rated this variable at 3, 4 or 5 on this scale). The results of this segmentation scheme are presented in Table 3.

The results from Table 3 provide insights about a cultural difference impact in such an emerging market. Those consumers who placed a low importance on the buying of local products, utilized scent, variety, vitamins, and reputation in their choice process and to a certain degree the after use feel as well. Those who placed a high importance on the buying of local products, used scent as a salient attribute in their choice process and to a certain degree, the foam of the shampoo. The medium level of importance segment, utilized the after use feel, and price in the choice process. It is interesting to note that the low importance consumers exhibit a more complex choice process with core and brand equity attributes being salient in the choice process whereas the high importance segment uses only a fraction of the core attributes. The medium importance segment reveals the salience of a new attribute in the choice process, that is, price. By using cultural differences, we are able to gain more insights into the choice process for shampoos in different consumer groups; usage of such a segmentation scheme is somewhat unique in the context of these brand categories in an emerging market. The model was able to classify correctly 74.7 per cent of the observations with respect to their chosen brand category. The log-likelihood test, $-2 \log \lambda = 25.032$ indicating that

Table 3: Multinomial logit choice model coefficients: Importance of buying local products' segments

Attribute	Low importance		Medium importance		High importance	
	Parameter	Significance level	Parameter	Significance level	Parameter	Significance level
Scent	0.492	0.028	0.2877	0.232	0.344	0.035
Foam	-0.205	0.403	-0.109	0.655	-0.375	0.067
After use	0.392	0.075	0.606	0.015	0.247	0.167
Package	-0.215	0.296	-0.060	0.771	0.172	0.275
Variety	0.532	0.054	-0.132	0.584	-0.514	0.726
Texture	0.197	0.270	0.159	0.526	0.119	0.401
Price	-0.075	0.636	-0.355	0.033	-0.107	0.347
Vitamins	-0.641	0.006	0.055	0.829	0.081	0.597
Reputation	0.579	0.002	0.298	0.127	0.094	0.538
Log likelihood function	-49.3911		-44.0384		-66.6218	

the segmentation scheme used here is statistically significant and meaningful.

The next phase of our analysis is preference formation modelling. We separately estimated the regression parameters, as in Equation (3), for each brand category – international, national and private, following the same type of analysis in terms of aggregation and segmentation. The results of the aggregate analysis are presented in Table 4.

From Table 4 it can be seen that the preference formation for the international brand category is very complex and involves many product attributes. Core (scent, foam, after use and vitamins), brand equity (reputation) and distinct value (price) are significant in this analysis. It appears that consumers are presuming that a higher priced international brand signals higher quality and thus prefer a higher rather than a lower priced international brand. The national brand preference formation is based on core (scent and after use) and to a certain degree on brand equity (reputation). The private brand preference is solely based on brand equity (reputation). These results might be expected, intuitively, as they represent different types of products in terms of positioning, complexity and branding. Only a single significant attribute exists in the case of the private brand category. This is, in a sense, a non-compensatory preference

formation process where only the brand equity characteristic (that is, reputation) matters in forming preference for that brand. This result overall, is consistent with previous literature in preference formation for food commodities (for example, chicken, beef) – which in general as a generic category is conceptually close to that of private brands – where also only a single variable was significant (Heiman and Lowengart, 2008). Such a preference formation process might be the result of a halo effect. Consumers could be using a global evaluation in their mind for such a brand and do not discriminate between its attributes to form their preference, but rather use this global evaluation to determine their behaviour. Next, we analyze preference formation for males and females and present the results in Tables 5 and 6.

The results of the gender segmentation scheme reveal some similarities and differences between the three different brand categories compared with the aggregate analysis and within the different brand categories for each segment. The degree of complexity is similar to the one in Table 4 for the aggregate analysis such that the international brand category preference formation is driven by multiple attributes, and for the national and private ones less number of attributes is involved in this process.

Table 4: Preference regression analysis – Aggregate level for the three brand categories

Attributes	International brand category		National brand category		Private brand category	
	Parameter	Significance level	Parameter	Significance level	Parameter	Significance level
Constant	−1.298	0.028	−0.181	0.751	0.381	0.335
Scent	0.308	0.001	0.375	0.001	0.063	0.452
Foam	0.309	0.001	−0.014	0.898	0.074	0.430
After use	0.281	0.003	0.241	0.031	0.161	0.131
Packaging	0.045	0.586	0.051	0.632	−0.039	0.656
Variety	−0.091	0.391	−0.010	0.931	−0.133	0.172
Texture	0.071	0.424	0.137	0.181	0.052	0.603
Price	0.181	0.001	0.022	0.778	0.111	0.107
Vitamins	−0.179	0.058	−0.133	0.241	0.030	0.756
Reputation	0.275	0.002	0.196	0.075	0.282	0.004
R ²	0.420	—	0.273	—	0.220	—

Table 5: Preference regression analysis – Disaggregate level for the three brand categories – Female segmentation scheme

Attributes	International brand category		National brand category		Private brand category	
	Parameter	Significance level	Parameter	Significance level	Parameter	Significance level
Constant	-2.964	0.000	-1.867	0.020	0.238	0.676
Scent	0.390	0.001	0.281	0.113	0.060	0.557
Foam	0.260	0.015	0.088	0.635	0.003	0.984
After use	0.355	0.005	0.350	0.013	0.231	0.086
Packaging	0.091	0.299	-0.113	0.437	-0.036	0.803
Variety	-0.430	0.002	-0.037	0.801	-0.204	0.127
Texture	0.376	0.002	0.304	0.022	0.238	0.073
Price	0.232	0.001	0.157	0.223	0.005	0.957
Vitamins	0.003	0.977	-0.063	0.680	0.045	0.723
Reputation	0.252	0.019	0.248	0.102	0.279	0.054
R ²	0.619	—	0.427	—	0.253	—

Table 6: Preference regression analysis – Disaggregate level for the three brand categories – Male segmentation scheme

Attributes	International brand category		National brand category		Private brand category	
	Parameter	Significance level	Parameter	Significance level	Parameter	Significance level
Constant	0.364	0.704	1.674	0.051	0.499	0.384
Scent	0.314	0.042	0.515	0.003	0.148	0.323
Foam	0.321	0.036	-0.075	0.651	0.137	0.330
After use	0.396	0.007	-0.055	0.787	-0.028	0.880
Packaging	-0.368	0.054	0.119	0.453	-0.043	0.732
Variety	0.276	0.105	0.306	0.125	0.037	0.803
Texture	-0.206	0.119	-0.026	0.875	-0.230	0.165
Price	0.122	0.164	-0.129	0.225	0.307	0.007
Vitamins	0.435	0.006	-0.195	0.268	-0.159	0.329
Reputation	0.426	0.008	0.020	0.900	0.424	0.005
R ²	0.327	—	0.221	—	0.268	—

Table 7: Preference regression analysis – Disaggregate level for the three brand categories – Low importance of buying local products

Attributes	International brand category		National brand category		Private brand category	
	Parameter	Significance level	Parameter	Significance level	Parameter	Significance level
Constant	-1.909	0.013	-0.805	0.293	0.488	0.308
Scent	0.532	0.001	0.344	0.041	0.060	0.613
Foam	0.264	0.031	0.298	0.072	0.021	0.884
After use	0.391	0.006	0.217	0.143	0.119	0.408
Packaging	0.009	0.932	0.203	0.233	0.068	0.594
Variety	-0.226	0.133	-0.089	0.577	-0.115	0.404
Texture	0.099	0.404	-0.054	0.747	-0.007	0.960
Price	0.159	0.031	-0.042	0.729	0.102	0.254
Vitamins	-0.396	0.004	-0.076	0.658	0.065	0.623
Reputation	0.475	0.000	0.155	0.348	0.195	0.127
R ²	0.585	—	0.380	—	0.209	—

The preference formation basis for the international brand category for the female consumer segment is very rich and complex and involves core, distinct value and brand

equity attributes. Surprisingly, variety has a negative effect on preference towards this brand type. This process shows that a small number of attributes are important when it

Table 8: Preference regression analysis – Disaggregate level for the three brand categories – High importance of buying local products

Attributes	International brand category		National brand category		Private brand category	
	Parameter	Significance level	Parameter	Significance level	Parameter	Significance level
Constant	−0.671	0.449	0.855	0.319	0.578	0.387
Scent	0.188	0.177	0.355	0.033	0.061	0.615
Foam	0.352	0.005	−0.425	0.008	0.111	0.397
After use	0.188	0.164	0.344	0.051	0.144	0.369
Packaging	0.092	0.505	−0.098	0.507	−0.142	0.252
Variety	−0.089	0.576	0.175	0.300	−0.179	0.213
Texture	0.030	0.830	0.244	0.070	0.177	0.242
Price	0.225	0.004	0.010	0.925	0.099	0.366
Vitamins	−0.081	0.559	−0.104	0.493	0.056	0.705
Reputation	0.182	0.197	0.194	0.193	0.278	0.074
R ²	0.332	—	0.257	—	0.196	—

comes to the national and private brand categories as only a few core product attributes are significant in addition to the variable reflecting brand equity for the private brand.

The preference formation of the male segment did not include price in its preference formation for the international brand category quite unlike that for the female segment. There are no major differences between male and females when it comes to the national and private brands except that for the national brand category, males used slightly fewer core attributes than the females,

The last analysis we present, looks at a cultural difference effect on preference formation. For expository purposes and conciseness, we do not present the medium level. The results are presented in Tables 7 and 8.

Analyzing the results from the tables above, it can be seen that the ‘low importance of buying local product segment’ uses a complex preference formation process when forming preference for international brands with core, brand equity and the price attributes involved in this process. The ‘high importance group’ is influenced by foam and price only for the international brand category. It is interesting to note that the private brand category has no significant variables.

SUMMARY AND CONCLUSIONS

Our analysis reveals that within a product category (shampoo in our case) international, national and private brands categories have very distinct identities. They affect consumer preferences and choice in various ways. The impacts at the aggregate market level also vary from those at some segment levels, suggesting the varying utility of different types of marketing strategies.

We have considered two kinds of segmentation variables, one demographic (gender) and the other cultural (one which emphasizes importance of buying local or not) in nature. At the segment levels as well as at the overall market level, the brands have been characterized by extrinsic and intrinsic product attributes as well as attributes reflecting value and brand equity. Our preference regression runs identify the drivers that are important in moulding how consumers develop a liking for a specific brand type, when the brand is considered in an independent context. Our choice modelling reveals what drivers are important when international, national and private brands compete with one another for market share.

Choice modelling is closely in synch with our main objective – to understand how international, national brand and

private brands vie with each other to get the mind share of consumers in an emerging market. The preference analysis provides complementary information. For instance, the latter analysis could indicate what kinds of attributes might a new international brand (possibly a future entrant) want to stress if its goal is to gain the preference of consumers within that category. Let us next consider an example related to the choice analysis: For an international brand to compete with a national brand and a private brand, the international brand should not waste any resources utilizing any price based strategy; this is based on the aggregate level choice analysis. The reason is that the price variable was not significant in the choice modelling (see Table 1). However, in preparing for the future entry of a new international brand, the existing international brands need to absolutely think of considering a premium pricing policy today; this deduction follows from the positive and significant price coefficient for the international brand category at the aggregate market level in the preference analysis (see Table 5). In the following paragraphs, we discuss and summarize our other main results and their implications.

The analyses of consumers' preferences and choice for international, national and private brands, allow us to get a greater understanding of product positioning and targeting issues in an emerging market. Our results indicate that there were interesting patterns with respect to attributes that were salient in consumers' preference and choice formations. In general, at the aggregate level, the shampoo's scent, foam, after use feeling, and reputation were significant in the choice process. Different consumers' groups, however, did not equally value these attributes. In particular for the male group, only the shampoo's foam and scent had significant effects on preferences, while for the female group, scent, the after use feeling, texture, vitamins and reputation of the shampoo had significant impacts on

choice. Capturing the heterogeneity among consumers with respect to the importance of buying local products, it seems that the low importance segment valued scent, variety, vitamins and reputation in forming preferences. The medium importance segment valued the price and after use feeling attributes, and the high importance segment valued scent and foam. These differences support our general research expectation of differences in consumers' attribute evaluations in affecting choice.

A result coming out from this study is the possible identification of consumers who halo in a choice or preference task. By this we mean that some consumers do not consider many attributes, and the outcome of their behaviour is based probably on some global evaluation of the brand. Further research in exploring this issue through an exploratory study might reveal the driving forces behind such potential behaviour. Future research can also benefit from two types of extensions. The first is extending this analysis to other non-durable product categories with a similar market structure and the second is to examine similar markets that may go through this process at a different point in time. Creating a longitudinal type of study where perceptions, preferences and choice are analyzed at various time periods after an international brand is introduced, will also be of use. This will provide a path towards understanding steady-state-like conditions.

Managers can get a better view of the appropriate marketing strategies for different brands categories (international, national and private) by understanding what drives consumers' preferences and choice in general, and different consumer groups in particular. Our study shows that gender differences are mainly reflected in that in the female segment, choice is driven by brand equity and core shampoo attributes (the physical aspects of the product), whereas the male segment's choice is not driven by brand equity aspect of the product, but only by the intrinsic aspects

(core attributes) of the product. For those consumers who are valuing locally produced products, choice is driven by a few intrinsic product attributes, whereas those consumers who have low importance for locally produced products have their choice driven by both intrinsic and brand equity attributes.

Finally, we would like to compare our analysis findings with the theoretical hypotheses that we had identified in section 2 of the article. Hypothesis 1 is supported indicating that the choice process is quite distinct from the formation process for preference assessments, as indicated by the clearly different patterns of drivers that show up as salient in the two types of analyses. We found partial support for Hypothesis 2. As expected, intrinsic cues were significant drivers of aggregate market level choice between the three brand categories. In contrast to our expectation though, one extrinsic cue, namely brand reputation turned to be a salient variable also. Hypothesis 3 was supported. At the aggregate market level, the preference judgment for the international brand category was formed by a complex compensatory judgment process involving a variety of intrinsic and extrinsic cues; for the private brand category, the extrinsic cue of brand reputation was the sole salient determinant of preference judgment.

Our research has brought out several findings of managerial significance for these brand categories in the context of an emerging market. These findings could be the platform from which future researchers can plan to explore other competitive aspects that may affect consumer choice and preference in emerging markets.

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