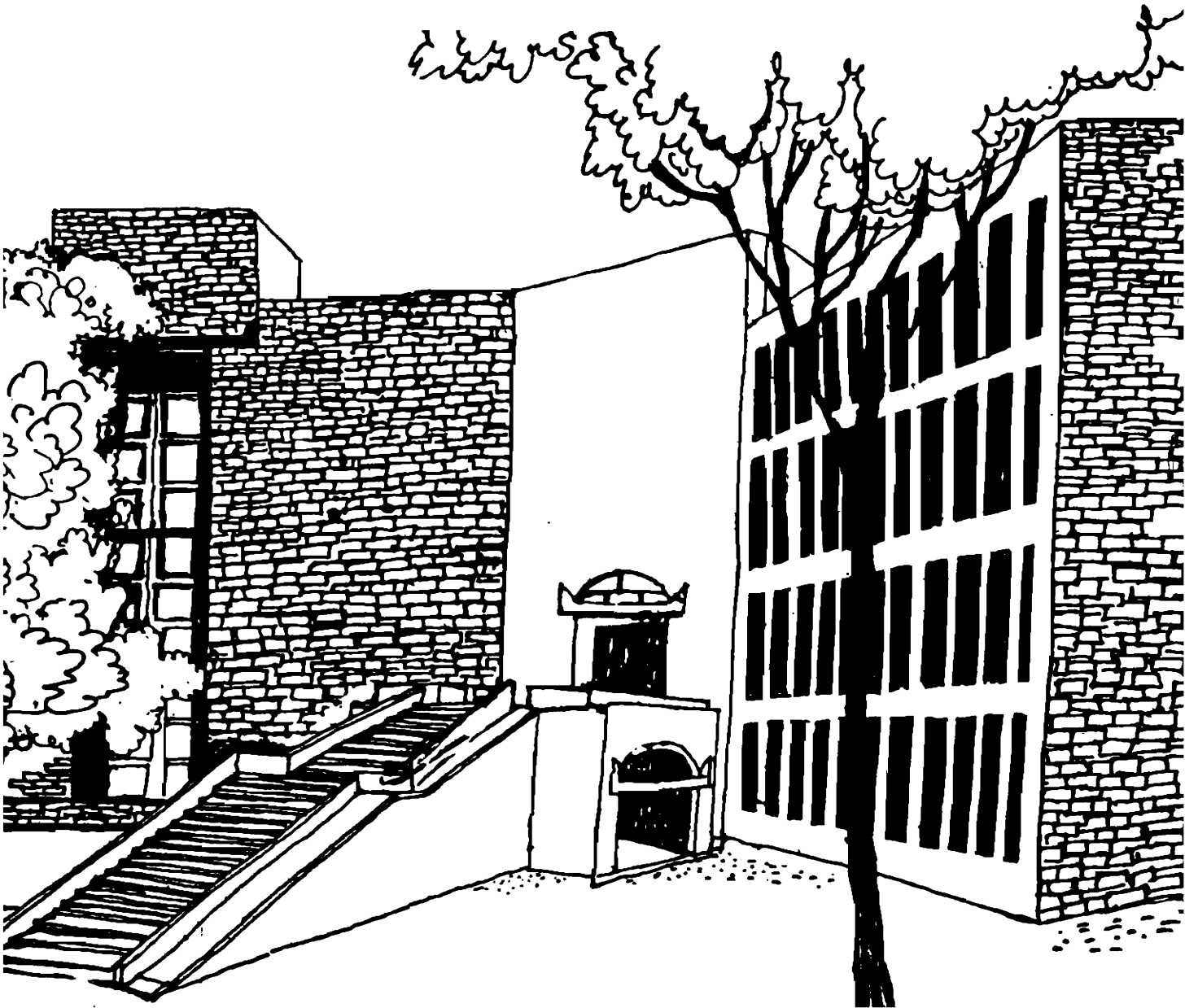




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Working Paper



A MODEL OF CONSUMER EVALUATION OF BRAND
EXTENSIONS

By

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A Model of Consumer Evaluation of Brand Extensions

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Abstract

Current research has shown that consumers' attitudes towards brand extensions is a function of brand affect, and similarity between parent and extension product categories. Research has also stressed on the importance of the brand specific association in the evaluation of the extension. We develop a model of evaluation of brand extensions with the variables of relevance of the brand's specific association in the extension category and typicality of the brand in its original category. We find that consumers' attitudes are mainly a function of brand affect, relevance of parent brand specific association in extension, and similarity of parent and extension categories by physical features. Relevance of association is found to be more important than similarity between parent and extension categories in the evaluation of extensions by consumers. However, we find no evidence that the presence of a relevant association helps a brand to extend to dissimilar categories. Brand affect is moderated by similarity between parent and extension categories and typicality of the parent brand. Similarity between parent and extension categories helps in transfer of affect from parent brand to extension. However high typicality of brands seem to deter transfer of affect to extensions.

* We wish to thank Jagdeep Chhokar, and participants of the seminar in IIMA for helpful comments on this paper. All errors in this research, however, are ours. All correspondences regarding this paper are to be sent to ***Bibek Banerjee***, Indian Institute of Management, Ahmedabad 380 015, INDIA.

1. Introduction

Brands are the most valuable assets of companies today. The Marketing Science Institute states that "The equity of a brand name is in the value that is added by the name and rewarded in the market with better profit margins or market shares. It can be viewed by customers and channel members as both a financial asset and as a set of favorable associations and behaviors" (cf. Baldinger, 1990). As costs of introducing a brand in markets escalate, and the risks of failure increase, companies are leveraging the equity of their well established brands to reduce these risks.

Research on brand extensions has examined the manner in which consumers form attitudes towards brand extensions. A general model for the evaluation of the extensions was first developed by Aaker and Keller in their seminal paper in 1990 where they stated that extension evaluations are a function of 1) the interaction of perceived quality of the core brand and perceived 'fit' of the core brand with proposed extensions 2) perceptions of difficulty of making the extension. Sunde & Brodie (1993) replicated this study in New Zealand and found general support for the findings. They found that evaluation of the brand extension is a function of the perceived quality of the core brand, various types of perceived fit between original and extension product categories (transferability of skills and complementarity of products), and perceptions of difficulty of making the extension product. Bottomley & Doyle (1996) reviewed these two studies by Aaker & Keller (1990) and Sunde & Brodie (1993), along with another data set from UK and showed that consumer evaluations of brand extensions were primarily driven by the perceived quality of the parent brand and the perceived fit between the two product categories, and moderated by the interaction terms of quality and fit.

Park, Milberg and Lawson (1991) and Broniarczyk and Alba (1994) have also stressed on the importance of the *brand* in the evaluation of an extension. Park et.al. (1991) distinguished broadly between functional and prestige associations of a brand and found that evaluation of the extension was enhanced when the brand and the extension category shared the same association. Broniarczyk & Alba (1994) showed that brand-specific associations could moderate the effect of brand affect and product category similarity in the evaluation of an extension.

Bottomley & Doyle (1996) suggest that "the processes underlying the general model would benefit from further refinement and rather than focusing exclusively on measures of product category similarity and fit, additional research on the importance of the brand and brand concept consistency is required to clarify their respective roles in determining how consumers form attitudes towards brand

extensions". In this paper we make an attempt to understand the process by which consumers evaluate brand extensions using a more comprehensive model including the variables of extension relevance (Broniarczyk & Alba, 1994) and typicality of the parent brand ((Aaker & Keller,1990; Farquhar & Herr,1992b).

2. The Theoretical Model

The assumption in the evaluation of a brand extension is that the consumer values the brand positively in its parent category and transfers this positive meaning of the brand to the brand extension. Literature in the area of branding and psychology states that this transfer could occur through the following five processes :

Halo bias : Transfer of positive attitude associated with the parent brand (brand affect) directly to extension (Roman,1969; Neuhas and Taylor,1972).

Category based affect transfer : Transfer of brand affect from parent to extension category, if there is similarity between parent and extension categories (Aaker & Keller,1990; Park, Milberg & Lawson,1991; Dube, Schmitt & Bridges,1992; Desai & Hoyer,1993; Park, McCarthy & Milberg,1993; Sunde & Brodie,1993).

Typicality of parent brand : When the parent brand is typical of its category, brand affect is transferred to the extensions only when extension categories are similar to the parent category (Aaker & Keller,1990; Farquhar & Herr,1992b).

Brand specific associations : A brand-specific association is an attribute or benefit that differentiates a brand from competing brands. This process involves a transfer of affect from parent brand to extension when the parent brand-specific associations are relevant to the extension category (Broniarczyk & Alba,1994).

Analogical reasoning : The process involves a matching of parent and extension categories and a subsequent transfer of parent brand-specific associations relevant to the extension category (Kim,1991). Thus the transfer process is mediated by similarity.

We use the model in figure 1 to examine these different themes/ processes of evaluation of the extension. The solid lines signify the main effects of the variables on the attitude towards the extension and the dotted lines signify the different interaction effects.

Insert Figure 1

In the figure, for example, the solid line labeled 1 refers to the main effect of overall attitude towards the parent brand on the attitude towards the extension. Similarly, the dotted line labeled 2 refers to the moderating effect of 'fit' on the overall attitude towards the parent brand in the evaluation of an extension. This is the interaction effect of 'fit' and overall attitude in the model. It also refers to the moderating effect of 'fit' on the prototypicality of the parent brand in the evaluation of the extension. This is the process of typicality, the third process of evaluation of the extension in the above list.

We develop a comprehensive regression model, that would test for these competing explanations provided in literature for consumer evaluation of brand extensions.

3. Research Design and Methodology

Data on the variables outlined in the model was collected through two experiments that formed part of a detailed study on brand extensions. Pretests were used to identify existing brands that satisfied a set of criteria, the first being that they were familiar to all consumers. The brands had specific functional associations, that were not based on prestige, and they helped differentiate them from their product categories and from other brands in the same category. Finally, the brands were 'mono brands' in that they had not been extended in the market. Hypothetical extensions were generated by the respondents to these brands such that the brand's specific association was relevant to some extensions while it was not relevant for some others. This was essential since the purpose was to check the relative importance of this variable in the general model.

A comprehensive list of 74 frequently purchased non-durable product categories and 518 corresponding brands was obtained from the retail audit of the largest market research agency in India. We chose only the frequently purchased non-durable product categories since brands satisfying the criteria of 'mono brands' with specific functional associations were available only in these type of products. Two doctoral students and four ordinary consumers sifted through this list and shortlisted 28 product categories and 125 brands satisfying these criteria broadly.

Pretest 1: 160 respondents provided responses to a free association task for these 28 categories and 125 brands. All the data for the pretests was collected from convenience samples of real consumers. Associations to each brand was compared against the associations of other brands in the same

category, and to the associations of the category itself, to extract brands that had very specific functional associations (Broniarczyk & Alba, 1994). 18 categories and 59 brands with specific associations that were mentioned by at least 50% of the respondents, were shortlisted at this stage.

Pretest 2: To choose two brands from each category with significant differences in affect, 100 other respondents provided their affect ratings to the 59 brands (Seven point scale: Dislike-Like) shortlisted from pretest 1. For each pair of brands in each category, mean affect scores were calculated and the difference of means statistic was calculated for independent samples¹. 18 brands from six categories were retained at the end of pretest 2.

Pretest 3: In pretest 3, extensions were generated to these 18 brands in a brain storming session with 15 doctoral students. They were given the brand name and its specific association that had been established in the earlier pretests. Extensions were generated in such a way that the brand's specific association was relevant to some extension categories while the association was not relevant to some others. We made no attempt to draw the participants into generating extensions that were at differing levels of category similarity. The participants were only asked to generate all areas of extension that they could envisage the particular brand in. This exercise generated extensions to the brands, which were, ex post, categorised as similar and dissimilar extensions. We narrowed the list to five brand pairs from five categories.

Pretest 4: In the final pretest, an attempt was made to confirm all the original criteria set for the choice of brands and extensions. The five brand pairs from five different categories retained from the earlier pretests, and their respective extensions were evaluated by 143 respondents.

Strength of brand specific association

Aided recall of brand-specific associations for the brands was above 75 % except one specific brand of toilet soap (Jai) which had a aided recall of only 53% for its strongest association (Fragrance of flowers).

¹ To ensure that the independent samples chosen for calculating the statistic were similar with respect to distributions of age, education, occupation and household income per month, two tests - the Kolmogorov-Smirnov test and the Chi-square test of independence were conducted. Results from both the tests confirmed the null hypothesis that the two groups came from populations with similar distributions on the demographic variables.

Choice of brands with functional associations

Park et. al. (1991) state that prestige brand concepts have a greater ability to extend to dissimilar product classes than functional brand concepts, if the extensions are consistent with the brand concept. Hence it was decided to choose brands with functional associations for the study. A six item scale for measuring prestige was developed to check if the brands chosen were perceived to be prestigious². The six item scale is presented in Table 1.

Insert Table 1

The reliability coefficient of the prestige scale - Cronbach's alpha was above 0.75 for all the brands chosen in the study. Following this, the prestige scores for all the brands on the scale were taken together and a principal components factor analysis was performed on the scores. Analysis extracted one factor explaining 61.4% of the variance. Given that the reliability of the scale was quite high and the items on the scale were highly correlated among themselves, the ratings to each of the items were averaged to arrive at a consolidated prestige score for the brand. On a seven point scale none of the brands had a mean rating on the scale above 4. All the brands chosen were hence non-prestige in nature.

Relevance of the brand-specific association in the extension

For the brands chosen from pretest 3, the relevance of the parent brand's associations in the extension categories was measured on a seven point scale "Not relevant - Very relevant". An extension with a rating above 4 was considered to be a category where consumers perceived the parent brand's associations to be relevant.

Degree of similarity of extension category from parent category

In order to check if the extension categories were at different degrees of similarity from the parent category, respondents were asked to state how similar they found the extension category to the parent category on physical product features and/or characteristics. A rating less than 3 on similarity implied that the extension was dissimilar to the parent category, a rating

² A seven point scale 'Brand image not relating to prestige- Brand image relating to prestige' used in an earlier study failed to capture the variable of prestige from consumers.

between 3 and 5 implied that it was a similar extension and a rating greater than 5 implied that the category was a line extension to the parent category (Broniarczyk and Alba, 1994).

The final stimulus set had 8 brands, two from each of the 4 product categories that survived all pretests. There was a mix of relevant and non relevant extensions to the brands and the extensions were at varying levels of similarity from the parent category.

Model Variables and Measures

The final questionnaire was developed using measures for variables from different studies on brand extensions. Table 2 presents the measures, against each variable. Seven point scales were used for each of the measures in the study³. In addition to the variables identified from theory, we also collected data on three other variables that could have a bearing towards the evaluation of the extension namely, prestige status of the parent brand, use of the extension category and the consumers' involvement in the extension category. Since we had consciously included only brands with functional associations in the study, we wanted to check if the brands chosen for the study were perceived to be prestigious by the respondents in the final study and whether the prestige status of the brand had any bearing on the evaluation of the extension. Extensive use of the extension category could predispose a person towards a new brand extension either positively or negatively and hence it has been considered as a covariate in studies on brand extensions (Broniarczyk and Alba, 1994). Finally, consumer involvement is one of those variables that is known to affect every stage of the consumer decision making process - extent of information search, evaluation of alternatives, information processing, attitude formation, choice processes, and final behavior itself (Engel, Blackwell and Miniard, 1995). Further, Aaker & Keller (1990) and Kapferer (1992) also stress on the importance of the consumers' involvement in the extension category in evaluation of the extension. Hence this variable is also included in the model. At the end, some demographic information was also collected from all respondents.

³ Two independent groups of 28-30 respondents were asked to rate 12 familiar brands for affect on nine point and seven point scales. To check if there was overuse of the neutral category in one scale vs. the other, the proportion of responses at the neutral point of the scale was calculated for both groups. A one tailed test of difference of proportions for the two scales showed differences in only 2 out of the 12 cases. Given few differences in the test of proportions, it was decided to use the seven point scales for measurement of variables in the study. Seven is also the modal number of response alternatives to the scale in a large number of studies reviewed by Paul Peter (1979)

Insert Table 2

The questionnaires were administered to 360 respondents. To reduce fatigue, the total number of extensions in the study were split among eight versions of the questionnaire (45 respondents for each version). No questionnaire contained more than one brand from each category and comprised a mix of relevant/ non-relevant and similar/dissimilar extensions. Thus at the individual level, each subject evaluated one or two extensions to one brand from each of the four product categories. This resulted in an aggregate sample of 2160 responses.

Stimuli

The stimuli used for the study are presented in Table 3. For example, in the shampoo category, the two mono brands with specific functional associations were Sunsilk (Association: Shiny silky great looking hair) and Mediker (Association: Anti-Lice). They were significantly different in their affect perceptions in that Sunsilk was more preferred to Mediker in the shampoo category. The extension stimuli used were conditioner, hair cream, medicated bath soap, tik shampoo for dogs for both the brands. The perceptions of the 360 respondents in terms of attitude towards parent brand, strength of parent brand association, relevance of the parent brand association in the extensions and similarity of the extensions to the parent categories are also presented in the table.

Insert Table 3

4. Results

The correlation matrix between the measures for the variables and their respective interactions is presented in Figure 2. Correlation between the four measures of attitude towards the extension was 0.64 and between the three measures of attitude towards the brand was 0.83. Hence the regression analysis uses an unweighted mean of responses on the measures for these two variables. The different measures for the other variables, namely, relevance of association, similarity between parent and extension categories and typicality of the parent brand were not correlated and hence they seem to reflect certain disjoint aspects of each variable. Therefore, we

use each of these measures independently in our analysis. None of the measures of the independent variables are highly correlated with each other, which rules out problems of collinearity.

Insert Figure 2

The General Regression Model: Aggregate Data

Bivariate regressions of each of the above variables with attitude towards the extension shows that all the variables are significant in explaining variance in the dependent variable. Hence it is unlikely that consumers might use a single process in the evaluation of an extension. We estimated the linear form of a regression model (Aaker & Keller, 1990; Sunde & Brodie, 1993; Bottomley & Doyle, 1996) with the following main effects and interaction effects.

Main effects :

1. Brand affect (BA)
2. Similarity between parent and extension categories (SIMPf & SIMUS)
3. Relevance of the Association (RACOM & RAIMP)
4. Typicality of the parent brand (TYPFREQ & TYPTYP)

Interaction Effects :

1. Category based affect transfer (SIMIL - BA * SIMPF/ SIMUS- two terms)
2. Analogical reasoning (ANRES - RACOM/ RAIMP * SIMPF/ SIMUS - four terms)
3. Typicality (TYP - TYPFREQ/ TYPTYP * SIMPF/ SIMUS - four terms)
4. Brand Affect and Relevance of association (BARA - BA * RACOM/ RAIMP - two terms)
5. Brand Affect and Typicality of brand in category (BATYP - BA * TYPFREQ/ TYPTYP - two terms)

With the variables of prestige, use and involvement, the full-effects model is calibrated as:

$$\text{Att}_e = \alpha_0 + \alpha_1 \text{BA} + \alpha_2 \text{SIMPf} + \alpha_3 \text{SIMUS} + \alpha_4 \text{RACOM} + \alpha_5 \text{RAIMP} + \alpha_6 \text{TYPFREQ} + \alpha_7 \text{TYPTYP} + \alpha_8 \text{SIMIL} + \alpha_9 \text{ANRES} + \alpha_{10} \text{TYP} + \alpha_{11} \text{BARA} + \alpha_{12} \text{BATYP} + \alpha_{13} \text{PRES} + \alpha_{14} \text{USE} + \alpha_{15} \text{INVOL} \quad (1)$$

However, we obtained a high degree of correlation between the interaction terms and the specific variables constituting them. For example, the interaction of brand affect and relevance of association (BARA) is highly correlated with brand affect (.573) and relevance of association (.9224). The same is the case with the other interaction terms in the equation. Therefore, following Nijssen and Hartman (1994) and Bottomley and Doyle (1996), we use Lance's (1988) 'residual centering' approach to calibrate the model in equation 1.

The residual centering approach is essentially a two-stage regression procedure. From the processes underlying the evaluation of the extension we know that the consumers' attitude towards the extension (Att_e) depends on the consumers' affect towards the parent brand (BA), the degree of 'fit' between the parent and extension categories on physical features (SIMPf) and an interaction term BA * SIMPF, which forms the essence of the process of Category based affect transfer (SIMIL).

In stage 1, this interaction term, BA * SIMPF is regressed on the individual variables from which it is composed, using ordinary least squares. The residuals from this equation namely, SIMRESID (BA * SIMPF (residual)) are retrieved.

$$BA * SIMPF = \alpha_0 + \alpha_1 BA + \alpha_2 SIMPF \quad (2)$$

The residuals from the above model capture the variance associated with the interaction term that is not explained by the two variables comprising the interaction namely, BA and SIMPF. In stage 2, we substitute this residual term SIMRESID (BA * SIMPF (residual)) for the original interaction term (BA*SIMPf) into the full effects model to overcome the multicollinearity problem:

$$Att_e = \beta_0 + \beta_1 BA + \beta_2 SIMPF + \beta_3 SIMRESID \quad (3)$$

A similar exercise is conducted for all the interaction terms in Equation 1 and the 'full-effects' model is calibrated using the residuals. A one-way ANOVA of the dependent variable 'attitude towards the extension' with the different demographic variables of gender, age, education, occupation and household income per month shows that there are significant differences with respect to gender ($F=13.59, p<.0002$) and age ($F=4.189, p<.0022$). Hence we add dummy variables pertaining to the different categories of gender, age, education, occupation, and household income per month in to the full-effects model. The final full-effects model is calibrated as follows:

$$Att_e = \alpha_0 + \alpha_1 BA + \alpha_2 SIMPF + \alpha_3 SIMUS + \alpha_4 RACOM + \alpha_5 RAIMP + \alpha_6 TYPFREQ + \alpha_7 TYPTYP + \alpha_8 SIMRESID + \alpha_9 ANRESID + \alpha_{10} TYPRESID + \alpha_{11} BARARESID + \alpha_{12} BATYPRESID + \alpha_{13} PRES + \alpha_{14} USE + \alpha_{15} INVOL + \alpha_{16} Gender + \alpha_{17} Age + \alpha_{18} Education + \alpha_{19} Occupation + \alpha_{20} HHIncome \quad (4)$$

Appendix 1 presents a comparison of the full-effects model adjusted and not adjusted for multicollinearity.

Insert Table 4

Table 4 presents the results of the full-effects, interaction-effects and main-effects models estimated for the aggregate data. The interaction effects and the main effects are regressed separately against the dependent variable to establish whether the interaction effects make a difference in the evaluation of the extension. Stepwise regression models are estimated to obtain the best combination of variables that explain attitude towards the extension. The full-effects model explains 34% of the variance in the data. In table 4, a comparison of the beta coefficients of the full effects model shows that the main effects of brand affect (BA), relevance of association (RACOM & RAIMP), similarity between parent and extension categories on physical features (SIMPF), use of the extension category (USE), prestige status of the parent brand (PRES), and the involvement in the extension category (INVOL) are important in that order in explaining attitude towards the extension. The interaction effects of brand affect & typicality (BATYPRESID), category based affect transfer (SIMRESID), theme of typicality (TYPRESID) follow the main effects in importance in explaining attitude towards the extension. Two dummy variables of gender and age are also significant in the model.

It follows that brand affect is the most important variable explaining attitude towards the extension. However, main effects of relevance of association, similarity, prestige, use and involvement show that these variables are also considered in the evaluation of the extension. Table 4 shows that four interaction variables namely, SIMRESID, TYPRESID, BATYPRESID are significant in explaining attitude towards the extension even in the adjusted full-effects model. The coefficient for SIMRESID is positive and hence we can conclude that the influence of brand affect on the evaluation of the extension

is enhanced when the two product categories fit together in terms of physical features. The coefficient of TYPRESID is also positive and implies that extensions from typical brands are evaluated favorably when they are similar to the parent category.

The coefficient for ANRESID is not significant in the model. When the data is split into three groups on the variable of similarity namely, line, similar and dissimilar extensions, and the full effects model specified in equation 4 is estimated, we find the coefficient of ANRESID is positive for the model for line extensions. The term is not significant in models for similar and dissimilar extensions. The absence of a significant effect for this interaction term implies that the process of analogical reasoning does not hold good, and the presence of a relevant association might not help a marketer to extend the brand to dissimilar categories. The coefficient for BATYPRESID is negative in the aggregate regression model and it implies that it is difficult for consumers to transfer affect to the extension, when the brand is typical of its category.

The main effects of the variables are significant and larger in magnitude than the interaction variables. Hence it is clear that the effect of the interaction variables is secondary to the main effects in determining the consumers' overall attitude towards the brand extension.

In order to determine if the interaction terms have a direct influence on the consumers' overall attitude to the extension, the interaction residuals were regressed together on consumers' attitude towards the extension. When the total data set is taken into consideration, the variance explained by the interaction variables is 1.3% and TYPRESID and BATYPRESID are the variables significant in explaining attitude towards the extension. The bivariate regressions of each of the residual terms against attitude towards the extension also show that only SIMRESID and TYPRESID are significant ($p = .05$) in explaining attitude, and explain 0.182 % and 0.151 % of the variance in the data respectively. Once again, this confirms the fact that the main effects are more important in explaining the individual's overall attitude towards the extension, as against the interaction effects. The main-effects model explains 33.2% of the variance and the order of importance of variables remains the same as the full-effects model.

The General Regression Model: Disaggregate Data

The data is disaggregated at the brand extension level to understand if there are variations in the process of evaluation of extensions by consumers. Given the small sample sizes with regard to each

brand extension, the models are estimated with one measure for every independent variable and the corresponding interaction⁴. For the variables of attitude towards the extension, and brand affect, we used the mean scores across different measures to operationalise the variables. For the other three variables, we used the measures SIMPF, RACOM, and TYPFREQ respectively. Table 5 presents parameters of the estimation of full-effects model for the 40 brand extensions used in the study. As in the case of the aggregate data, the interaction-effects and main-effects models show results similar to the full-effects model.

For the full-effects model, BA is significant for 29 out of 40 cases, SIMPF for 13 out of 40 cases, RACOM for nine out of 40 cases and TYPFREQ for five out of 40 cases, implying that brand affect seems to be the main process underlying the evaluation of the extension. In fact, in 21 out of these 29 cases, the beta coefficient of BA has the highest magnitude implying its added importance in the process of evaluation of the extension. The interaction terms SIMRESID, ANRESID and TYPRESID figure in only eight out of 40 cases - three out of 40 cases for SIMRESID, two out of 40 cases for ANRESID, four out of 40 cases for BATYPRESID. It is surprising that for the three cases namely, Krack lip gel, Sunsilk conditioner, and Mediker conditioner, for which SIMRESID is significant, the sign of the beta coefficient is negative. This implies that the transfer of affect from parent brand to extension is actually deterred by similarity between parent category and the extension⁵. The attitude means for these three extensions is 5.63, 4.42, and 4.38 on a seven point scale - all above the mid point of 4, implying that none of them are evaluated unfavorably. Conditioner is perceived to be a line extension on both measures of similarity used in the study while lip gel is perceived to be similar to the rub and balm category on physical features and dissimilar to the rub and balm category on the measure of similarity by usage situations. The negative effect of similarity on brand affect for the category of conditioner could be because the consumers perceive that a conditioner should be a part of the shampoo itself. Hence, they expect that the shampoo and conditioner should not be sold separately. The brand could be perceived as cheating consumers by selling conditioners separately when it is assumed to be part of the shampoo package itself. For lip gel, the fact that it is perceived to be

⁴ The measures are chosen based on their higher correlation with the dependent variable 'attitude towards the extension'.

⁵ When the measure "similarity of parent and extension categories according to usage situations (SimUS)" is used in the model, the interaction variable of SIMRESID is not significant in each of these three cases.

dissimilar on usage situations, may have deterred the transfer of affect from parent brand to extension, leading to a negative coefficient for this theme of category based affect transfer.

The maximum variance in the dependent variable explained by the interaction-effects model, for any extension is only 9%. SIMRESID is significant for three cases, ANRESID for three cases and BATYPRESID for two cases respectively.

Insert Table 5

5. Conclusions and Directions for Future Research

Consumers' attitude towards the extension is a function of brand affect. It is the most important variable explaining attitude in the model estimated for the aggregate data and also figures in 29 out of 40 models estimated for individual brand extensions. It follows that if a brand is valued positively in its parent category, there is a high likelihood that it will be valued positively in its extension category as well. Thus, presence of strong affect for one's brand is the first pre-requisite for a successful brand extension strategy. However, the evaluation of the extension is not only a case of simple affect transfer. The relevance of brand specific association in the extension and similarity of parent and extension categories are also important in explaining attitude. Each of these variables has a positive effect on the attitude towards the extension and the interactions between these variables, representing different processes of evaluation are also significant in the model. The main effects of the variables are more important in explaining attitude towards the extension than the interaction effects. The interaction effects provide us pointers on how to manipulate the dynamics between these variables so as to manage the brand extension strategy for a brand successfully.

The variable of relevance of brand specific association is significant in the model estimated for the total data. It would hence be beneficial for marketers to build strong associations for their brands. Brand affect could also be enhanced by building a strong association for the brand that would differentiate it from the other brands in the category and from the category associations. The theme of analogical reasoning was not significant in the regression model. It follows that leveraging a brand to dissimilar categories may not be possible on the basis of a relevant association, as stated by extant literature.

Similarity between the parent and extension category is the next important factor in explaining attitude towards the extension for the aggregate data. When separate models are estimated for brand

extensions used in this research, 'similarity by physical features' is significant in explaining attitude in 13 out of 40 cases and is the most important variable affecting attitude for 6 out of these 13 cases. The interaction term representing category based affect transfer (BA x SIMPF/ SIMUS) is also significant and positive in the regression model for the total data, but lower in importance compared to the main effect of the variable of similarity. Therefore we find support for the hypothesis (Tauber, 1981, 1988; Aaker & Keller, 1990; Boush & Loken, 1991; Park et. al., 1991) that consumer evaluation of brand extensions is a function of similarity between categories, and transfer of brand affect from parent brand to extension is enhanced when the parent and extension categories are similar. However, the inclusion of the variable of relevance of association in the model has clearly shown that similarity between parent and extension categories is definitely lower in order of importance compared to the variable of relevance of association in the evaluation of extensions by consumers.

Typicality of the parent brand does not have a direct effect on the evaluation of the extension in the model estimated for the aggregate data. However, when models are estimated separately for each brand extension, typicality has a positive effect in 5 out of 40 cases namely, Iodex painkiller tablets, Sunsilk medicated bath soap, Coffee bite mouth freshener and chocolate bar, and Polo mouth freshener. All these four brands have scores above 5 on the variable of typicality on a 7 point scale, implying that they are more typical of their categories than other brands. Thus typicality of the parent brand has a positive effect on attitude towards some extensions. Literature supports a positive relationship between typicality and attitude towards the brand in its own category (Barsalou 1983, 1985; Nedungadi and Hutchison, 1985, Loken and Ward, 1990). We find that this positive relationship is also manifest in the attitude towards an extension from the brand, in another category. Literature on the theme of typicality also states that for brands typical of a category, extensions should be introduced only into similar categories. This theme of typicality (TYPFREQ x SIMUS) is significant in the models estimated for the total data and carries a positive coefficient. Under this theme, the variable of typicality of the parent brand interacts with the variable of similarity by usage situations. This implies that consumers tend to evaluate extensions from typical brands more favorably if the similarity between the parent and extension categories is high in terms of their usage in common situations. However, the interaction effect of brand affect & typicality (BA x TYPTYP) is also significant for the total data with a negative coefficient implying that it would be difficult to transfer affect from parent brand to extension if the brand is very typical of its category.

The prestige status of the parent brand, extent of use of the extension category and involvement in the extension category are also significant in explaining attitude. The parent brands are all perceived to be non prestige in the study but at the same time, a significant main effect for prestige implies that the more a brand is perceived as prestigious by the consumer, the more favorable is his/her attitude towards an extension from the brand. Consumers may develop an affect towards prestige brands for the sake of the prestige status of the brand itself and this strong affect could translate into positive attitude towards extensions from the brand. A main effect of the use of the extension category suggests that the more regularly an individual uses a particular category, the more predisposed he/ she is towards brand extensions in that category. This predisposition can be attributed to the individual's affect towards the product category itself. Sullivan (1992) states that brand extensions are launched into mature product categories which are used quite regularly by a vast chunk of consumers. Hence, it might do well for brand managers to concentrate not only on parent brand related aspects for the launch of an extension, but also on the category related aspects like needs satisfied by the category, evaluation and choice processes of brands in the category and profile of heavy users versus non users and their specific requirements. Involvement in the extension category also has a positive effect on the attitude towards the extension. Thus, higher the involvement of the individual in the category into which the brand is extending, the more positive is her/his evaluation of the extension.

When the regression model is estimated for the total data, the demographic variables of gender (males) and age (30-40 years) are significant. When the model is estimated separately for this group of males in the age group 30-40, the variance explained in the data is 52% and the most important variables explaining attitude are brand affect, interaction effect of brand affect & typicality and similarity by physical features. We estimated the regression models separately for males and females, and found that brand affect is the most important variable explaining attitude for both groups. Similarity by physical features and relevance of association are the next important variables explaining attitude for males, and relevance of association and involvement follow brand affect in importance for females.

Our results establish the importance of affect and associations in building brand equity. Aaker (1991) has stated that five elements form the basis of brand equity namely, brand loyalty, name awareness, perceived quality, brand associations and other proprietary assets. These bases of brand equity provide the platform for growth via brand extensions. We find that two of these dimensions -

overall affect towards the brand (operationalised as perceived quality of parent brand in different studies on brand extension) and brand associations are the most important factors influencing attitude towards the extension. Thus the manager needs to concentrate on building affect and strong associations for his brand.

In our research, we have used single item measures in the study for three independent variables - relevance of brand specific association, similarity between parent and extension categories and typicality of the parent brand. The two measures used for each of the variables did not correlate very well with each other and hence we estimated the model with all measures. In some of the models, both measures are significant in explaining attitude. This implies that each measure is capturing a disjoint aspect of the variable. To understand each of these variables in their entirety, we need composite measures that capture all their different facets.

Further, we have not included the marketing mix variables in the estimation of the model. For frequently purchased non-durable categories, the marketing mix variables of promotion and distribution are of particular importance and inclusion of these variables in the model could give us better insights into the whole process of evaluation of the extension. It might be worthwhile to replicate our model by incorporating the marketing mix variables.

We have used mono brands to test the model. Since majority of the brands in the frequently purchased non-durable categories have already been extended, our model would need to be modified to understand the process of evaluation of a third or fourth extension from a brand.

Appendix 1

Model Parameters for Data adjusted and not adjusted for multicollinearity

Total Data adjusted for multicollinearity (2160)		Total Data not adjusted for multicollinearity (2160)	
Adjusted R ²	34.0 %	Adjusted R ²	34.0 %

Effects	(Beta coefficient. Sign)		
BA	.3447 (.0000)	BA	.2967 (.0000)
SIMPF	.1210 (.0000)	SIMPF	NS
SIMUS	NS	SIMUS	-.1223 (.0092)
RACOM	.1412 (.0000)	RACOM	.2101 (.0000)
RAIMP	.1265 (.0000)	RAIMP	NS
TYPFREQ	NS	TYPFREQ	NS
TYPTYP	NS	TYPTYP	NS
PRES	.0791 (.0000)	PRES	.0775 (.0000)
USE	.0776 (.0002)	USE	.0773 (.0003)
INVOL	.0726 (.0005)	INVOL	.0736 (.0004)
SIMRESID (BA x SIMUS)	.0482 (.0331)	SIMIL (BA x SIMPF)	.1396 (.0000)
ANRESID	NS	ANRES (SIMUS x RACOM)	-.1015 (.0659)
TYPRESID (SIMUS x TYPFREQ)	.0404 (.0732)	TYP (SIMUS x TYPTYP)	.2607 (.0000)
BARARESID	NS	BARA (BA x RAIMP)	.1522 (.0000)
BATYPRESID (BA x TYPTYP)	-.0497 (.0049)	BATYP (BA x TYPTYP)	-.2108 (.0002)
GENDER (Males)	.0458 (.0100)	GENDER (Males)	.0439 (.0135)
AGE (30-40 years)	.0395 (.0255)	AGE (30-40 years)	.0391 (.0266)

There is no difference in the variance explained by the two models. The difference lies in the interpretation of the underlying process of evaluation of the extensions. A comparison of the beta

coefficients for the two models shows that BA is the most important variable explaining attitude in both models. However, in the case of the unadjusted model, the interaction effects of typicality (TYP) and brand affect & typicality (BATYP) follow the variable 'BA' in importance. The next variable in order of importance is relevance of association (RACOM) followed by the interaction effects of brand affect & relevance of association (BARA) and category based affect transfer (SIMIL).

On the other hand, in the model adjusted for multicollinearity, the main effects of BA, RACOM, RAIMP, SIMPF, USE, PRES and INVOL are important in explaining attitude in that order. The interaction effects follow the main effects in importance.

Based on the unadjusted model, we might draw an erroneous conclusion that the interaction effects are more important in explaining attitude than the main effects. Hence an adjustment for multicollinearity is essential for the estimation of the general linear model for the evaluation of the extensions.

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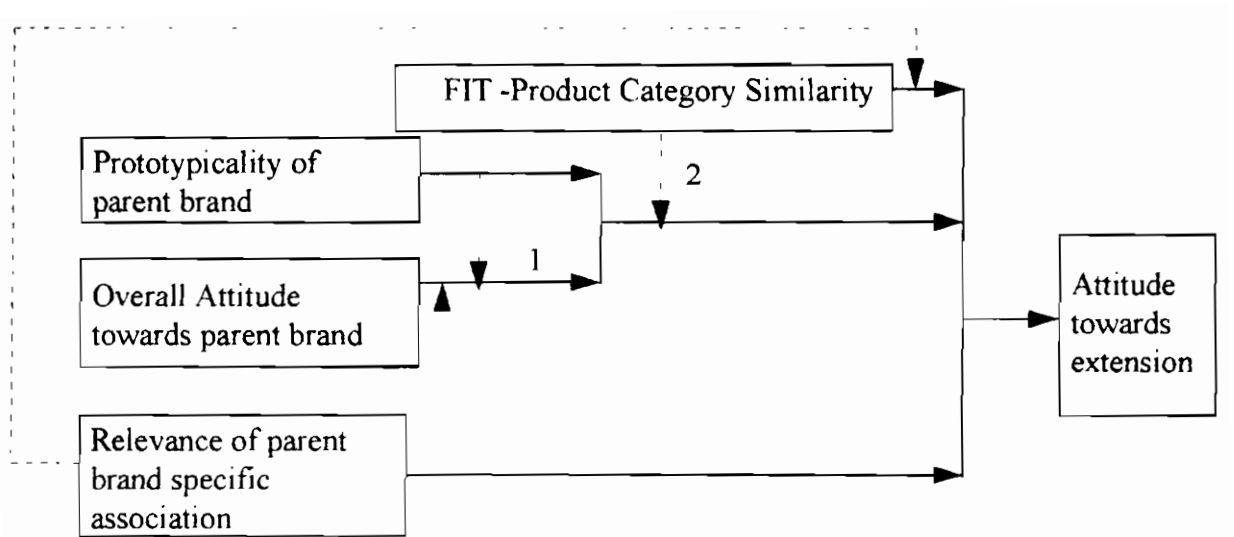


Figure 1 - Consumer Evaluation of Brand Extensions: The Model

	ATTENT	BRATT	SIMPF	SIMUS	RACOM	RAIMP	TYPFREQ	TYPTYP	INVOL	USE	PRES
ATTENT	1.0000 (2160) P=.										
BRATT	.4592 (2160) P=.000	1.0000 (2160) P=.									
SIMPF	.2394 (2156) P=.000	.1224 (2156) P=.000	1.0000 (2156) P=.								
SIMUS	.1731 (2159) P=.000	.0718 (2159) P=.001	.3051 (2155) P=.000	1.0000 (2159) P=.							
RACOM	.3738 (2160) P=.000	.3023 (2160) P=.000	.1727 (2156) P=.000	.2243 (2159) P=.000	1.0000 (2160) P=.						
RAIMP	.3180 (2159) P=.000	.1529 (2159) P=.000	.1963 (2155) P=.000	.2713 (2158) P=.000	.5002 (2159) P=.000	1.0000 (2159) P=.					
TYPFREQ	.3279 (2160) P=.000	.6219 (2160) P=.000	.1270 (2156) P=.000	.0622 (2159) P=.004	.2192 (2160) P=.000	.1317 (2159) P=.000	1.0000 (2160) P=.				
TYPTYP	.2436 (2160) P=.000	.4179 (2160) P=.000	.1058 (2156) P=.000	.0940 (2159) P=.000	.2652 (2160) P=.000	.1324 (2159) P=.000	.5026 (2160) P=.000	1.0000 (2160) P=.			
INVOL	.2042 (2147) P=.000	.0871 (2147) P=.000	.0774 (2143) P=.000	.1828 (2146) P=.000	.1735 (2147) P=.000	.2080 (2146) P=.000	.0890 (2147) P=.000	.0609 (2147) P=.005	1.0000 (2147) P=.		
USE	.2374 (2160) P=.000	.1560 (2160) P=.000	.1046 (2156) P=.000	.1597 (2159) P=.000	.2087 (2160) P=.000	.1888 (2159) P=.000	.1386 (2160) P=.000	.1017 (2160) P=.000	.5283 (2147) P=.000	1.0000 (2160) P=.	
PRES	.1964 (2159) P=.000	.1743 (2159) P=.000	.1200 (2155) P=.000	.0775 (2158) P=.000	.0842 (2159) P=.000	.1247 (2158) P=.000	.1376 (2159) P=.000	.0695 (2159) P=.001	.0480 (2146) P=.026	.0440 (2159) P=.041	1.0000 (2159) P=.

(Coefficient (Cases) 2-tailed Significance)

Figure 2 - Correlation Matrix

Table 1: Scale to measure prestige status of brands

No	Scale Statement (1-7 point scale - Disagree-Agree)
1	This brand is a luxury brand
2	This brand provides high status
3	Using this brand would make a person appear classy and sophisticated in the eyes of society
4	This brand is bought more for the image it creates than for its usefulness
5	This brand is used only by a select group of high income persons
6	This brand is very expensive

Table 2: Variables and Measures

Variable		Measure
Attitude towards the extension (Dependent variable)	Att.	Overall evaluation of the potential extension (7 point scale) a) Inferior to existing brands - Superior to existing brands b) Dislike - Like c) Not willing to try at all - Definitely willing to try d) Unfavorable - Favorable
Attitude towards parent brand	BA	7 point scales measuring brand affect a) Dislike - Like b) Low Quality - High Quality c) Unfavorable - Favorable
Similarity (FIT)	SIMPF	Two 7 point scales measuring similarity a) Not similar - Very similar on <i>physical features and product characteristics</i>
	SIMUS	b) Strongly Disagree - Strongly Agree on usage of the two categories together in certain <i>usage situations</i> .
Relevance of brand association	RACOM	a) Distinctiveness of the feature/association to the brand name (1-7 point scale) x evaluation of transferable feature in extension category (1-7 point scale) (Associated with product class - Uniquely associated with brand) x (Dislike - Like)
	RAIMP	b) A 7 point scale measuring <i>importance</i> of parent brand association in extension category Not at all important - Very important
Typicality	TYPTYP	a) A 7 point scale measuring how representative/ <i>typical</i> the brand is of the parent category (Not typical - Very typical)
	TYPFREQ	b) A 7 point scale measuring how frequently the brand is encountered as a member of the parent category (Not frequently at all - Very frequently)
Involvement in the extension category	INVOL	The McQuarrie and Munson (1992) ten item scale is used to measure the consumers' involvement in the extension category
Prestige status of the parent brand	PRES	The prestige status of the parent brand is measured using the scale developed in table 1
Extent of use of the extension category	USE	The extent to which the extension category is used by consumers is measured on a 7 point scale Do not use the product at all - Use the product regularly.
Demographic variables		Information on the demographic variables of gender, age, occupation, education and household income per month was also collected from respondents.

Table 3: Stimulus set for the study

No	Category	Brand ^a	Brand Association	Assocn Strength ^b	Extensions	Ext. Relev. ^c RACOM	Simil. ^d SIMPF
1	Confectionery	1. Polo (5.87)	Mint Mint with a hole	5.66	1. Mouth freshener 2. Breath mints 3. Chocolate bar 4. Coffee	33.98 36.16 22.69 20.29	3.98 4.58 5.37 3.65
		2. Coffee Bite (5.53)	Coffee Satisfaction in a chocolate	5.19	1. Chocolate bar 2. Coffee 3. Coffee house 4. Lozenges 5. Chewing gum 6. Breathmints 7. Mouth freshener	30.64 25.07 25.96 28.13 25.02 18.76 22.00	5.37 3.65 3.64 4.24 4.84 4.58 3.98
2	Rub and Balm	1. Iodex (5.7)	Relief from Sprains/ muscular pains	5.42	1. Painkiller tablets 2. Medicated plaster 3. Massaging machine 4. Petroleum jelly 5. Winter cream 6. Lip Gel	28.73 30.6 29.56 21.87 17.71 14.47	3.93 3.93 3.4 4.55 3.46 3.31
		2. Krack (4.75)	Soft crackless feet	5.32	1. Winter cream 2. Lip gel 3. Medicated plaster 4. Painkiller tablets	25.27 19.44 15.47 14.62	3.46 3.31 3.93 3.93
3	Shampoo	1. Sunsilk (5.35)	Shiny silky great looking hair	4.71	1. Conditioner 2. Hair cream gel 3. Medicated bath soap 4. Tik Shampoo for dogs	29.51 25.18 18.6 14.36	5.04 4.64 3.58 4.11
		2. Mediker (4.82)	Anti-Lice	5.15	1. Medicated bath soap 2. Moth balls 3. Tik shampoo for dogs 4. Mosquito repellent 5. Hair cream gel 6. Conditioner	22.71 14.2 25.64 16.24 23.43 23.88	3.58 2.33 4.11 2.77 4.64 5.04
4	Soap	1. Lux (5.16)	Image of Film Stars	4.72	1. Shampoo 2. Cosmetics 3. Talcum powder 4. Perfume	23.89 25.62 18.84 19.27	3.63 3.95 4.27 4.49
		2. Jai (3.82)	Fragrance of flowers	4.25	1. Talcum powder 2. Perfume 3. Shampoo 4. Cosmetics 5. Hair wash soap	27.89 23.96 21.73 20.99 15.11	4.27 4.49 3.63 3.95 3.62

- a Figures in parenthesis with brands signify values for brand affect (BA) in the study. Except for the pair Coffee bite-Polo, there were preference differences between brands at 5% level of significance for Rub and balm and soap categories and differences at 10% level of significance for the shampoo category.
- b Strength of Association is measured on the seven point scale "Associated with product class - Uniquely associated with brand" which is part of the total measure for relevance of parent brand specific association in extension category.

- c Relevance of parent brand specific association in extension category is measured as " Distinctiveness of the feature/association to the brand name (1-7, seven pt. scale) x evaluation of transferable feature in extension category (1-7 point scale)"
- d The values of similarity or fit between parent and extension categories are based on the similarity by physical features and product characteristics.

Table 4: Model Parameters for the full-effects, interaction-effects and main-effects model -
Aggregate Data

	Full Effects Model	Interaction effects model	Main effects model
Adjusted R ²	34.0 %	1.3 %	33.2 %

Effects	• (Beta coefficient, Sign)		
BA	.3447 (.0000)		.3418 (.0000)
SIMPF	.1210 (.0000)		.1207 (.0000)
SIMUS	NS		NS
RACOM	.1412 (.0000)		.1483 (.0000)
RAIMP	.1265 (.0000)		.1269 (.0000)
TYPFREQ	NS		NS
TYPTYP	NS		NS
PRES	.0791 (.0000)		.0866 (.0000)
USE	.0776 (.0002)		.0779 (.0002)
INVOL	.0726 (.0005)		.0714 (.0007)
SIMRESID (BA x SIMUS)	.0482 (.0331)		
ANRESID			
TYPRESID (SIMUS x TYPFREQ)	.0404 (.0732)	.1111 (.0000)	
BARARESID	NS		
BATYPRESID (BA x TYPTYP)	-.0497 (.0049)	-.0442 (.0390)	
GENDER (Males)	.0458 (.0100)		.0484 (.0067)
AGE (30-40 years)	.0395 (.0255)		.0385 (.0013)

**Table 5: Model parameters for full-effects model - Brand Extension level Analyses
(Adjusted R square, beta coefficients for the variables significant at 5% level of significance)**

Extension	Adj R ²	BA	SIMPF	RA COMB N	TYP FREQ	SIM RESID	AN RESID	TYP RESID	BARA RESID	BATYP RESID
Iodex Medicated plaster	.365	3172	2971	2303			-.3004			
Iodex winter cream	.210		2486	3756						
Iodex painkiller tablets	.088				.3299					
Iodex lip gel	.196			.4629						
Iodex petroleum jelly	.218	2898	.3469							
Iodex massaging machine	.261		5273							
Krack medicated plaster	.283	.5471								
Krack winter cream	.618	.7059		2593						
Krack painkiller tablets	.228	4960								
Krack lip gel	.138	.2955				-.3001				
Sunsilk hair cream/ gel	.435	.6694								
Sunsilk conditioner	.392	.3775	.3536			-.2738				.2750
Sunsilk medicated bath soap	.380		4123		3871					
Sunsilk tik shampoo for dogs	.177		4430							
Mediker hair cream/ gel	.248	.5072								
Mediker conditioner	.258	.4664				-.239				
Mediker medicated bath soap	.316	.5760								
Mediker tik shampoo for dogs	.388			6341						

Extension	Adj R ²	BA	SIMPF	RA COMB N	TYP FREQ	SIM RESI D	AN RESI D	TYP RESI D	BARA RESID	BATYP RESID
Mediker naphthalene/ moth balls										
Mediker mosquito repellent	.157		4211							
Lux shampoo	.362	.4666	.3423							
Lux talcum powder	.171	.4363								
Lux cosmetics	.212	.4796								
Lux perfume	.185	.2886	.3246							
Jai shampoo	.350	.6041								
Jai talcum powder	.652	.6704		.2428						
Jai cosmetics	.534	.6816	.1914							
Jai perfume	.426	.640								-.188
Jai hairwash soap	.346	.6012								
Coffee bite Coffee	.292	.2821	.3311	.2276						
Coffee bite mouth freshener	.339	.3530			.4091					
Coffee bite chocolate bar	.416	.3923			.4429					
Coffee bite breath mints	.2259	.3066	.3491							
Coffee bite lozenges	.268	.5338								
Coffee bite chewing gum	.478	.7002								
Coffee bite coffee house	.562	.5099		.2745						.2681
Polo breathmints	.094	.3394								
Polo coffee	.072						.3054			
Polo mouth freshener	.454	.2778		.3267	.3157					
Polo chocolate bar	.081									-.3198