Evaluating co-branded products: the socioeconomic strata effect

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Abstract

Purpose – The purpose of this paper is to identify whether consumer evaluations of products are influenced by the presence of co-branding with a well-known reputable ingredient brand and whether differences in evaluations are related to the socioeconomic stratum of the consumer.

Design/methodology/approach – These questions were investigated by way of two experiments: the first, using a between-subjects approach that was carried out with 210 subjects and the second, using between- and within-subjects approaches that were carried out with 305 subjects.

Findings – The results show that: products produced by both little-known and well-known brands are evaluated more favourably when they are co-branded with a well-known ingredient brand; there is no evidence that the co-branding effect on product evaluation is stronger for little-known brand products than for well-known brand products; and there is weak evidence that the co-branding effect on product evaluation is stronger among subjects from lower socioeconomic strata than among subjects from the upper stratum.

Research limitations/implications – The theory of anchoring alone is insufficient for explaining differences in product evaluations when the co-branding strategy is adopted. It is believed that positive effects can be also interpreted by the assimilation and signalling theories.

Practical implications – As for the managerial implications, the authors offer insights into the impacts of using a strategic co-branding alliance on the products of little-known brands among consumers from lower and upper strata.

Originality/value – The study contributes to consumer behaviour literature, specifically with regard to ingredient-brand effects in co-branding strategies from the perspective of the end consumer.

Keywords Consumer behaviour, Brand awareness, Strategic alliances, Co-branding, Product evaluation, Socioeconomic strata

Paper type Research paper

Introduction

Brand alliances have become more frequent as marketers try to incorporate complementary characteristics from different brands into their own products (Levin and Levin, 2000). In this study, we explore co-branding, which involves a partnership between two brands to develop a product that will be simultaneously labelled and identified by both (Leuthesser *et al.*, 2003). Examples of co-branding can be found in different product categories, such as clothing (Adidas Add Racer trainers, developed by Adidas and Goodyear), food (Oreo cookies in Haagen-Dazs ice cream) and electronics (Sony Ericsson cell phones). This type of alliance has been growing (Keller and Lehmann, 2006; Radighieri *et al.*, 2014), reflecting a concern on the part of companies to improve the perception of consumers with regard to their products and image.

Within the domain of co-branding alliances, researchers have investigated the effect of co-branding on product evaluation (Hillyer and Tikoo, 1995), ingredient branding strategies in extending constituent brands (Desai and Keller, 2002), consumer attitudes to brands (James, 2005), the complementarity of brands (Park *et al.*, 1996), and brand and product category fit (Lanseng and Olsen, 2012; Walchli, 2007). Various effects have been observed: both higher and lower equity brands benefit from co-branding alliances (Washburn *et al.*, 2000, 2004); co-branding can drive image reinforcement or impair the image of the partner brand (Geylani *et al.*, 2008); co-branding is a market entry option for a brand with little brand familiarity (Baumgarth, 2004); and the strategy can help reduce costs, establish long-term contracts, and allow sharing of development and promotion costs (Erevelles *et al.*, 2008; Ghosh and John, 2009). It has also been found that such alliances facilitate the transfer of associations between brands, whether they are positive (Rao and Ruekert, 1994), negative (Votolato and Unnava, 2006), or both (Cunha *et al.*, 2015).

Although the literature on co-branding is extensive, there are still research gaps. For instance, more research is needed to comprehend the transfer mechanisms of brand attributes in co-branding alliances (Voss *et al.*, 2012) and the impact of such associations on product evaluation by different consumer segments (Keller, 2003). In particular, understanding the relationship between socioeconomic strata and product evaluation is needed when it comes to outlining strategies for strengthening a brand's position within target segments. According to Besharat and Langan (2014), such strategies can assist both global and local companies in developing new products by improving the image of participating brands and securing access to new markets.

To help clarify these issues, we revisit the theories of anchoring (Esch *et al.*, 2009), assimilation (Levin and Levin, 2000), and signalling (Rao and Ruekert, 1994) in order to establish the conceptual framework for the present study. Based on these theories, the objectives of this research are to assess: whether product evaluation for both little-known and well-known constituent brands improves when they are co-branded with a well-known reputable ingredient brand; if this improvement effect is stronger among the little-known constituent brands; and if these product evaluations are related to the socioeconomic stratum of the consumer.

This study contributes to fill existing gaps in the empirical and theoretical knowledge with regard to the evaluation of products that result from co-branding. Specifically, the results of two experiments suggest that the assimilation and signalling theories are more appropriate than the anchoring theory for explaining how products of both little- and well-known brands are more favourably evaluated when they are co-branded with a well-known ingredient brand. They also provide empirical support for the signalling literature's risk process approach (Montgomery and Wernerfelt, 1992; Voss *et al.*, 2012) to explain differences in product evaluation by socioeconomic strata. Given their income restrictions, consumers from lower strata, when compared to those from upper strata, may rely more on brand signals that indicate a reduced probability of a bad purchase, such as the presence of a well-known ingredient's brand logo in a product's label.

The remainder of this paper begins with a review of the literature on co-branding and consumer evaluation of co-branded products. Hypotheses are developed to address the theoretical gaps in the literature. Next, the methodology is presented along with the analyses. We conclude with a discussion of the results, theoretical and managerial implications, potential limitations of the study, and recommendations for future research.

Theoretical background and hypotheses
Previous studies have reported different types of co-branding relationship, such as composite (Park *et al.*, 1996), dual brand (Levin and Levin, 2000), and ingredient (Desai

and Keller, 2002). In this paper we examine the ingredient type of co-branding, which consists on incorporating "key attributes of one brand as ingredient into another brand", the constituent (Besharat and Langan, 2014, p. 119). Specifically, we examine how consumers evaluate co-branded products formed by a well-known reputable ingredient brand and a constituent brand that can have either low or high awareness. Brand awareness is defined as "the ability of a buyer to recognize that a brand is a member of a certain product category" (Aaker, 1991, p. 61).

Assuming that several determinants of product evaluation exist, a practical goal is to assess the relative effect of each determinant. From a consumer perspective, a co-branded product will be evaluated on the basis of the available cues. A cue, an attribute related to a product or brand, should be utilized to the extent that it is accessible in the consumer's memory and is perceived to be a good predictor of the attractiveness of a product. Consumer brand knowledge, therefore, is relevant to understanding product evaluation and is defined as "the personal meaning about a brand stored in consumer memory, that is, all descriptive and evaluative brand-related information" (Keller, 2003, p. 596).

As Keller and Lehmann (2006) pointed out, previous research finds that brand association and awareness may be an advantage to a brand and thus increase its market performance. It is assumed that high awareness brands, by maintaining unique networks of association in the minds of consumers, are more likely to enjoy superior market results than their lower-awareness counterparts (Broniarczyk and Alba, 1994). In a co-branding scenario, awareness of the participating brands is used as a source of information by which the consumer may evaluate the co-branded product (Besharat, 2010). In this process, consumers generally find it more challenging to access information on little-known brands and are thus more likely to draw upon associations with a well-known brand. In co-branding alliances where the well-known brand has a strong network of positive associations, the result of the alliance is likely to be of benefit to the little-known brand, as it gains from the consumer's perception of the well-known brand.

Transfer mechanisms of brand attributes
The evaluation of a co-branded product will be influenced by the consumer's knowledge of both of the brands that form the alliance. The way in which such knowledge is combined to determine the overall product evaluation has been investigated from the theoretical perspectives of anchoring (Esch *et al.*, 2009), assimilation (Levin and Levin, 2000), and signalling (Rao and Ruekert, 1994). Each of them is explained below.

According to the anchoring perspective, it is assumed that individuals compare the target with the anchor by testing the possibility that the target's value is equal to the anchor's value (Adaval and Wyer, 2011; Esch *et al.*, 2009). In generating their evaluation, individuals rely primarily on easily accessible knowledge (Wyer and Srull, 1989; Mussweiler *et al.*, 2000). Therefore, when presented with a product bundle, individuals may use the most important product in the bundle to anchor their judgement about the bundle as a whole (Epley and Gilovich, 2001; Yadav, 1994). An example of this type of analysis in a co-branding alliance can be found in the work of Esch *et al.* (2009). The authors assume that in a co-branding situation, the high awareness brand serves as an anchor and affects the image of the co-branded product as a whole. Therefore, the stimuli supplied by the anchor (knowledge, associations, and quality) can serve as a frame for interpreting the co-branded product. Esch *et al.* (2009) suggest that the evaluation of co-branded products of two brands of which there are different levels of knowledge (low vs high) will be distorted towards the brand of which there is greater awareness, while the anchoring effect is not observed when the co-branding is between two strong/well-known brands.

According to the assimilation theory, a brand alliance leads to an expectation of a similarity in quality between the brands involved; so consumers assume that the end product has the same quality standards as the brand that is more accessible in their memory (Levin and Levin, 2000). The perspective of assimilation assumes that the evaluation of a co-branded product formed by two well-known brands will be the result of the sum of the attributes of both brands. The result of the alliance exceeds their performances separately (Levin and Levin, 2000), that is, in forming an alliance between two well-known brands, the sum (the co-branded product) is greater than the parts.

The transfer mechanisms of brand attributes in a co-branding relationship can also be interpreted from the signalling theory perspective. This theory states that sellers and consumers do not have the same information about the quality of the products supplied in the market. In this context, brands serve as signals of quality and reputation and can minimize consumer insecurity in the purchase process (Rao and Ruekert, 1994; Voss *et al.*, 2012). In a co-branding situation formed by a little-known and a well-known brand, the well-known one serves as the main source of product credibility and quality, since this information cannot be transmitted by the little-known brand (Rao *et al.*, 1999). When the alliance is formed by two well-known brands, the presence of a second brand adds attributes and benefits that make the co-branded product more attractive than the product of a single brand. According to Montgomery and Wernerfelt (1992), brands that have positive attributes serve to reduce the probability perceived by consumers that the purchase will result in negative outcomes for them. Such a risk reduction mechanism is particularly important for supporting our hypothesis, as presented in the following section, about the expected differences in the evaluation of products by consumers from higher and lower socioeconomic strata.

Study hypotheses
Given the processes described, we estimate that both little-known as well as well-known constituent brands will benefit from a co-branding alliance with a well-known ingredient brand. Anchoring, assimilation and signalling theories all support the proposition that in an alliance composed of one little-known and one well-known brand, the positive associations of the latter can be extended to the former. Both the assimilation and signalling theories provide support for the idea that well-known constituent brands should also benefit from an alliance with a well-known ingredient brand, even though the presence of an anchor may not exist. Therefore, we propose that:

   H1a. Both little-known brand products and well-known brand products will be better evaluated when they are in co-branding with a well-known reputable ingredient brand.

Furthermore, given that little-known brands have less impact on the assessment of co-branded products, they should benefit more from the presence of a well-known partner brand (Baumgarth, 2004; Besharat and Langan, 2014; Simonin and Ruth, 1998). We address this proposition with the following hypothesis:

   H1b. The co-branding (with a well-known reputable ingredient brand) effect on product evaluation will be stronger for little-known brand products than for well-known brand products.

Considering the signalling theory's risk reduction mechanism, we believe that there is a difference in the way consumers from lower and higher socioeconomic strata evaluate co-branded products. According to the research by Park *et al.* (1996, p. 465), "for some

technological or high-risk purchases, brand alliances between highly favourable brands may reduce consumers' perceived risk". Familiarity with and awareness of strong branding may reduce risk perceptions related to little-known brands, while increasing trust and improving evaluations (Tam, 2008). Income limitations mean that individuals from lower socioeconomic strata are more engaged when it comes to reducing risk associated with their purchases, because they do not have sufficient funds to replace products, particularly high added value products. Because the sum of the positive characteristics of the brands involved in a co-branding alliance can reduce the perceived risks associated with product choice and because such risks are generally more pronounced among individuals from lower socioeconomic strata (Prahalad, 2004), we propose that:

H2. The co-branding (with a well-known ingredient brand) effect on product evaluation will be stronger among subjects from lower socioeconomic strata than among subjects from the upper stratum.

Methodological procedures
We chose laptop computers as the product category to assess the hypotheses. Data collection was divided into three stages. First, a pre-test was performed to identify little-known and well-known laptop brands. The pre-test also allowed for a preliminary assessment of the psychometric properties of the product evaluation and brand awareness scales. Table I provides an overview of these three data collection stages, and the details of each stage follow.

Identification of little-known and well-known laptop brands
Brazilian business undergraduate students residing in São Paulo participated in the study. They came from four higher education institutions, two of which were

Sample	Experimental design	Dependent variable	Independent variable	Main goals
Pre-test 290 undergraduate students from four business schools from the city of São Paulo	–	–	–	Identify little-known and well-known laptop brands Verify the psychometric properties of the product evaluation and brand awareness scales
Experiment 1 210 undergraduate students from two business schools from the city of São Paulo	Between-subject (2×2)	Product evaluation	Brand (little or well-known) Co-branding (presence or absence)	Test *H1a* and *H1b*
Experiment 2 305 undergraduate students from four business schools from the city of São Paulo	Within and between-subject $(2 \times 2 \times 2)$	Product evaluation	Brand (little or well-known) Co-branding (presence or absence) Socioeconomic strata (upper or lower)	(re)test *H1a*, *H1b*, and *H2* Retest *H1a* using the within-subject new dataset

Table I.
Overview of the three
data collection stages

characterized as attracting students from higher socioeconomic classes and two characterized as attracting students from lower socioeconomic classes.

A total of 290 participants were given a questionnaire containing a list of nine laptop brands that can be found in the Brazilian market. Participants had to indicate if they knew each of them. Informal conversations with the students immediately after filling out the questionnaire suggested that any brand with a high incidence of "unknown" indications should be discarded, since it might be difficult to evaluate and there might be some resistance to doing so within the context of the experiments. The group of best known brands included Dell, HP, and Sony and the least known brands were Asus, CCE, and Lenovo. The intention of maintaining three brands per group was to allow those taking part in the experiments the option of configuring the reference stimuli with the brand (from the three) with which they felt most familiar. Intel was chosen as the ingredient brand for the experiments because it proved to be a reputable well-known brand among our target population.

Pre-test of measurement scales
The product evaluation and brand awareness scales were initially adapted from the works of Shamdasani *et al.* (2001) and Yoo and Donthu (2001), respectively. Each item underwent reverse translation and evaluation by two specialists in consumer behaviour to confirm adequate clarity, adaptation to the study context, and to ensure translation validity (content and face validity). The scores for each product and brand evaluated by the subjects were defined as the mean values for the scale items, which were based on a five-point Likert scale.

Using the pre-test data, five items from the product evaluation scale and five items from the brand awareness scale were examined using exploratory factor analysis to extract factors using principal components. The five indicators on the product evaluation scale showed high factor loadings for the first extracted factor (the lowest value was 0.79), and the single-factor solution explained 69.5 per cent of the original data variability. Cronbach's α coefficient was 0.89 for the five items and this value did not increase with the removal of any of the items. The linear correlation matrix for the items ranged from 0.50 to 0.71. Two items on the brand awareness scale produced low factor loadings for the first factor and were thus excluded from the analysis. For the remaining three indicators, the single-factor solution explained 65.8 per cent of the original data variability with a Cronbach's α coefficient of 0.74. The linear correlation matrix between these items produced values close to 0.50. One of the discarded items may have been phrased poorly (this item was rephrased before Experiments 1 and 2 were conducted), whereas the other was difficult to answer because of its reverse-worded presentation (this item was discarded, i.e. it was not used in Experiments 1 and 2).

Based on the data obtained from Experiments 1 and 2, the scales were tested using confirmatory factor analysis to verify their internal consistency. The model for the product evaluation scale indicated good fit with the data ($\chi2/df = 0.63$, CFI $= 0.99$, RMSEA $= 0.00$), as did the model for the brand awareness scale ($\chi2/df = 2.80$, CFI $= 0.98$, RMSEA $= 0.07$). The scale items are available in Appendix 1.

To assess criterion validity of the product evaluation scale, a question concerning the brand of laptop owned by each participant and his/her satisfaction with the product was included in the questionnaire for Experiment 2. The satisfied owners of well-known laptop brands were expected to evaluate these products more favourably than unsatisfied owners of the same products. Only 24 participants owned laptops by well-known brands and evaluated the products of those brands; of these participants,

19 stated that they were satisfied, while five were dissatisfied. Within this subset of subjects, the laptops both with and without co-branding that were advertised in the experiment were evaluated more favourably by the participants who reported they were satisfied than by those who reported they were dissatisfied (the p-values for these hypothesis tests were 0.04 and 0.05, respectively), suggesting evidence of the validity of the product evaluation scale used here. Only seven participants reported owning a laptop from one of the little-known brands, and for this reason tests were not performed for this scenario.

Experiment 1

Experiment 1 was designed to assess whether the presence of co-branding with a reputable well-known ingredient brand improves product evaluation for both little-known and well-known constituent brands, and if this improvement effect is stronger for little-known constituent brands when compared with well-known ones, thus allowing *H1a* and *H1b* to be tested.

Method. Experiment 1 applied a between-subject 2×2 factorial design using the manipulated variables: brand (little- or well-known) and co-branding (presence or absence). The experimental cells were randomly assigned to students who attended the two institutions with the highest tuition fees mentioned in the pre-test. Initially, each of the 210 participants had to indicate one of the three brands with which they were most familiar: if they had been allocated the version of the experiment with the little-known brands, they had to choose between Asus, CCE, and Lenovo; if they had been allocated the well-known brands version they had to choose between Dell, HP, and Sony. The following blocks of questions were then presented: (i) four items from the brand awareness scale with regard to the brand indicated and with regard to the Intel brand; (ii) five items from the product evaluation scale with regard to a laptop of the brand chosen with or without co-branding with Intel, in accordance with the experimental cell to which the subject was allocated; and (iii) questions of a socioeconomic and control nature. The order of blocks (i), (ii) and (iii) and the questions within them were randomised using a feature from an online data collection platform.

The stimulus consisted of displaying the second Generation Intel Core i5 Processor seal and specifying the presence of an "Intel processor" in the product description. The pictures selected to represent the products were identical, and presentation of the characteristics followed the standards typically adopted in print media advertisements in the city of São Paulo.

Manipulation checks were performed to understand whether the brand awareness level of well-known constituent brands ($M = 4.40$, SD $= 0.61$, $\alpha = 0.69$) is indeed higher than that of little-known constituent brands ($M = 2.73$, SD $= 0.79$, $\alpha = 0.76$) and how they compare with awareness of the ingredient brand ($M = 4.29$, SD $= 0.81$, $\alpha = 0.73$). Mean comparison t-tests show that awareness of well-known constituent brands is higher than that of little-known constituent brands ($p < 0.01$) and that awareness of the ingredient brand is higher than that for little-known constituent brands ($p < 0.01$), but not statistically different from that of well-known constituent brands ($p > 0.05$). These results are in line with the researchers' expectations.

All Experiment 1 participants have household incomes above R\$13,560 a month; only about 0.9 per cent of the economically active population in Brazil has a household income above this level (Instituto Brasileiro de Geografia e Estatística (IBGE), 2010), and this result was expected, considering the profile of the students from the two

institutions in which the data were collected. Their average age was 20.5 years and ranged from 18 to 25; 58 per cent of them were male.

Results. H1a and H1b were analyzed with a 2×2 full-factorial ANOVA. The response variable was product evaluation ($M = 3.63$, SD $= 0.86$, $\alpha = 0.90$). The fixed effect factors were brand and co-branding. Levene's test for variance homogeneity within groups (p-value $= 0.25$) indicated that there is no evidence to reject the homoscedasticity assumption.

We found significant main effects of brand ($F(1, 206) = 32.36$, $p < 0.01$, $\omega^2 = 0.13$) and co-branding ($F(1\ 206 = 11.04$, $p = 0.01$, $\omega^2 = 0.04$). The two-way interaction between brand and co-branding was not significant ($F(1, 206) = 0.17$, $p = 0.68$, $\omega^2 < 0.01$). The results of this analysis are presented graphically in Figure 1. Descriptive statistics for the product evaluation variable are available in Table AI.

H1a was supported, that is, both the products of little-known brands and the products of well-known brands are better evaluated when they are co-branded with a well-known ingredient brand. On the other hand, given that the two-way interaction term between brand and co-branding was not significant, there is no evidence to support *H1b*, that is, no evidence that the co-branding effect on product evaluation will be stronger for little-known brand products than for well-known brand products.

Experiment 2
Experiment 2 was designed with two purposes in mind: to (re)test *H1a*, *H1b*, and *H2* and also to retest *H1a* using a within-subjects approach. By alternating the method used, we expect to find evidence to reinforce *H1a*.

Method. The manipulated variables used in Experiment 1 were maintained and the socioeconomic variable (lower or upper stratum) was introduced in order to allow for *H2* to be tested. The experimental cells were randomly assigned to students who attended all four institutions mentioned in the pre-test. As for the configuration of the scenarios and questions the only adjustment relative to Experiment 1 was to ask the subjects to reply twice to the five items of the product evaluation scale: once with regard to the laptop of the brand chosen without co-branding and the other for the
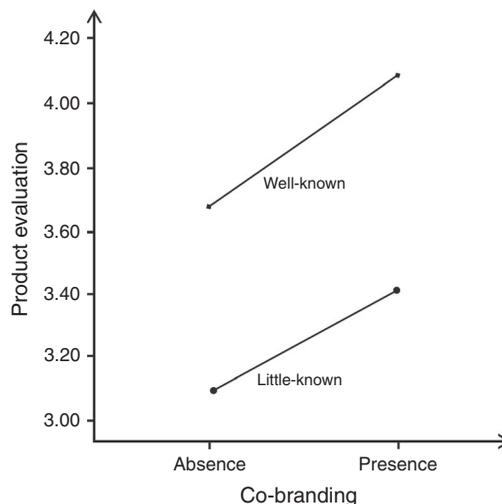

Figure 1.
A brand by
co-branding effect:
Experiment 1

same laptop with co-branding. The pairs of evaluation allowed for a within-subjects type analysis to be carried out, while for between-subjects type analyses the data of the participant's second product evaluation were discarded. Of the 305 participants, 166 evaluated a product without co-branding and then evaluated that same product with co-branding. Among these, 59 were faced with the treatment of the little-known brand and the other 107 with the treatment of the well-known brand. Another 139 participants evaluated a product with co-branding first. Of these, 62 were faced with the treatment of the little-known brand and 77 with that of the well-known brand.

Socioeconomic strata were assessed by means of the Kamakura and Mazzon (2013) model, which stratifies the Brazilian society based on concepts of social class and permanent income. This model measures the possession of goods, the education level of the head of the household and access to essential services. These attributes divided the participants into the following classes: A, B1, B2, C1, C2, D, and E. The items used for producing this classification are available from the authors. In this study, the upper stratum corresponds to class A, and the lower stratum corresponds to classes B1, B2, C1, and C2. None of the respondents belonged to socioeconomic classes D and E, which is explained by the fact that the sample comprised university students; generally speaking, individuals from these socioeconomic classes in Brazil do not progress to the university level in their studies. It needs to be pointed out that 204 of the 210 subjects of Experiment 1 were classified in stratum A, while only 177 of the 305 subjects of Experiment 2 were classified in this stratum; these different proportions can be explained by the profiles of the business schools visited for carrying out the two experiments. In Experiment 2, the average age of the respondents was 22.7 years and ranged from 18 to 31; 61 per cent of them were female.

Consistent with Experiment 1, manipulation checks for brand awareness were performed for well-known constituent brands ($M = 4.31$, SD $= 0.71$, $\alpha = 0.78$), little-known constituent brands ($M = 2.97$, SD $= 0.82$, $\alpha = 0.83$) and the ingredient brand ($M = 4.13$, SD $= 0.88$, $\alpha = 0.81$). Mean comparison t-tests show that awareness of well-known constituent brands is higher than that of little-known constituent brands ($p < 0.01$) and that awareness of the ingredient brand is higher than that of little-known constituent brands ($p < 0.01$). In this context, however, awareness of the well-known constituent brands was higher than of the ingredient brand ($p = 0.02$).

Results. The paired sample t-tests for mean comparison exhibited in Table II show that, regardless of the order of product evaluation and scenario, the presence of

View: without co-branding first			View: with co-branding first		
Without co-branding[a]	With co-branding[a]	p-value – t-test (mean difference)	With co-branding[a]	Without co-branding[a]	p-value – t- test (mean difference)
Little-known brands					
3.44 (0.88)	3.59 (0.93)	0.01	3.67 (0.91)	3.43 (0.95)	0.00
($n = 59$)			($n = 62$)		
Well-known brands					
3.97 (0.90)	4.20 (0.84)	0.00	4.17 (0.69)	3.85 (0.88)	0.00
($n = 107$)			($n = 77$)		

Notes: [a]The amounts in the column refer to the mean of the "product evaluation" variable. The standard deviation of the variable is in parentheses

Table II.
Paired sample t-tests for mean comparison with the within-subject approach of Experiment 2

co-branding improves product evaluation. This result adds to those from Experiment 1 and provides further evidence for *H1a*.

A between-subjects full-factorial ANOVA model was also built. Product evaluation ($M = 3.86$, SD $= 0.89$, $\alpha = 0.91$) was the response variable, while the fixed effect factors were brand, co-branding, and socioeconomic strata. As in the model for Experiment 1, the homoscedasticity assumption holds (Levene's test p-value $= 0.34$). The results of this analysis are presented graphically in Figure 2. Descriptive statistics for the product evaluation variable are available in Table AI.

We found significant main effects of brand ($F(1, 297) = 26.79$, $p < 0.01$, $\omega^2 = 0.08$), co-branding ($F(1, 297) = 5.47$, $p = 0.02$, $\omega^2 = 0.01$) and socioeconomic strata ($F(1, 297) = 8.05$, $p = 0.01$, $\omega^2 = 0.02$). The two-way interaction terms between brand and co-branding ($F(1, 297) = 0.02$, $p = 0.88$, $\omega^2 < 0.01$), brand and socioeconomic strata ($F(1, 297) = 3.13$, $p = 0.08$, $\omega^2 = 0.01$) and co-branding and socioeconomic strata ($F(1, 297) = 2.58$, $p = 0.11$, $\omega^2 = 0.01$) were not significant. The three-way interaction term between brand, co-branding and socioeconomic strata was also not significant ($F(1, 297) = 0.23$, $p = 0.63$, $\omega^2 < 0.01$). These statistics show that *H1a* and *H1b* results are similar to those obtained in Experiment 1.

Given that the p-value for the interaction term between co-branding and socioeconomic strata was 0.11, at most we have weak evidence in favour of *H2* (the co-branding (with a well-known reputable ingredient brand) effect on product evaluation will be stronger among subjects from lower socioeconomic strata than among subjects from the upper stratum).

Discussion of results

Experiments 1 and 2 reveal that the products of both little-known and well-known brands are more favourably evaluated when they are co-branded (*H1a*). As observed by Leuthesser *et al.* (2003), various computer manufacturers have opted for co-branding with a well-known reputable ingredient brand because their clients believe in the performance and credibility that such a brand offers. There is no evidence, however, to
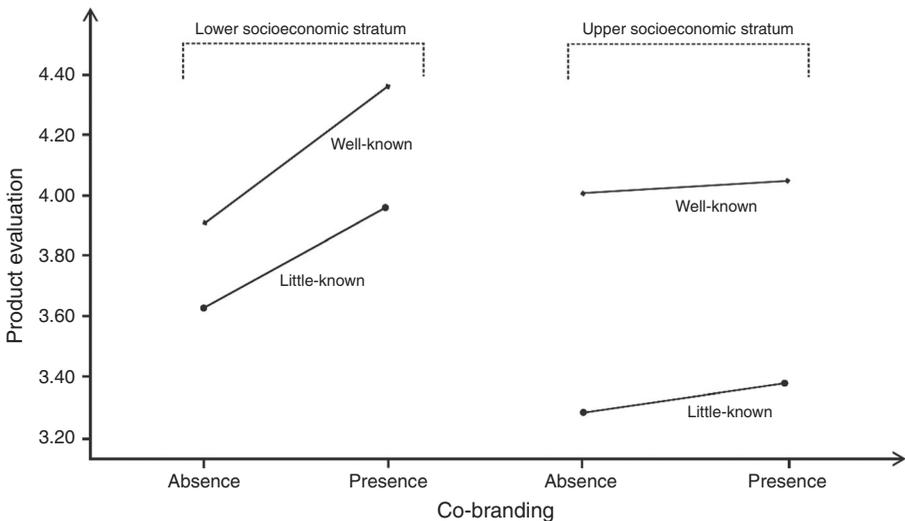

Figure 2.
A brand by co-branding by socioeconomic stratum effect: Experiment 2

suggest that little-known brand products will benefit more from co-branding than well-known brand products (*H1b*).

Subjects from lower socioeconomic strata evaluate co-branded products more favourably than those from the upper stratum. However, there is only weak evidence to suggest that the co-branding strategy will generate more positive results among the lower socioeconomic stratum (*H2*) in comparison with the upper stratum. Considering that the significance of the interaction term in Experiment 2 is close to 10 per cent, further investigation on the interaction effect between co-branding and socioeconomic strata (*H2*) is recommended.

These observations facilitate interpretation of the advantages of using co-branding: for little-known brands, co-branding is a prominent strategy for entering new markets. Marketing managers must devise strategies to communicate the benefits of complementarity and each brand's positive associations in its respective product category. The new middle class that is characteristic of emerging markets has more resources at its disposal and is therefore more open to consuming products that were previously inaccessible. Because these consumers tend to seek easier means to pay, better cost-benefit relations and perhaps products by renowned manufacturers (at least with regard to purchasing products with greater involvement and added value), a co-branding strategy can improve the image of a little-known brand. For a well-known brand, partnering with another well-known brand strengthens a product's set of positive evaluative cues and thus allows for more positive consumer evaluations.

Concluding remarks

This study sought to determine whether co-branding alliances with a well-known ingredient brand affect consumer evaluations of little-known and well-known brand products and whether differences in evaluations are related to the socioeconomic stratum of the consumer. Such questions were investigated by way of two experiments with co-branding scenarios in the laptop category.

The results indicate that: products produced by both little-known and well-known brands are evaluated more favourably when they are co-branded with a well-known ingredient brand; there is no evidence that the co-branding effect on product evaluation is stronger for little-known brand products than for well-known brand products; and there is weak evidence (*p*-value = 0.11) that the co-branding effect on product evaluation is stronger among subjects from lower socioeconomic strata than among subjects from the upper stratum.

The findings suggest that there is a transfer of association between the brands in the alliance, which benefits both the little-known brand (James, 2005; Baumgarth, 2004) as well as the well-known brand (Levin and Levin, 2000; Rao and Ruekert, 1994). Based on these results, we understand that the theory of anchoring appears to be insufficient for explaining differences in the evaluations of products with and without co-branding elements. We believe that the result of the evaluation of co-branded products between two well-known brands can be considered from the perspective of assimilation and signalling theories, which provide a better result when the two brands are joined together when compared with the performance of each separately. In this case, we do not know which brand should be considered the anchor, but we know that both are superior when they are together (Park *et al.*, 1996; Washburn *et al.*, 2004). In such alliances, the ingredient brand confers value on the product and enhances consumer evaluations through positive associations of credibility and quality, thus reducing the perception of risk associated with the purchase. In the specific case of Experiment 2,

even though the constituent brand was better known than the ingredient brand, it also benefited from co-branding.

Our study was based on a category of products that has recently been accessed by Brazilian consumers from lower socioeconomic strata. Including the socioeconomic stratum variable addresses a gap in the literature by comparing the behaviours of consumers across different social strata; this area of inquiry is still expanding, both in Brazil and abroad. Understanding the characteristics of the target public is essential when it comes to outlining strategies that generate the expected returns.

We observed that consumers from lower socioeconomic strata when compared with those from higher strata tend to evaluate the products of little-known brands better when there is co-branding with a strong ingredient brand. This is an important finding for little-known brands. Knowing that there is a growing new middle class in different marketplaces, particularly in emerging ones, looking for branding strategies that have an effect on this part of the population seems to be fundamental for competition purposes. In the computer segment, for example, in which there are large, leading manufacturers, smaller companies can take advantage of ingredient branding.

Potential limitations and possibilities for future research

A limitation of the present study is related to the student sample, which restricts the generalizability of the results. Although students represent a significant group of laptop users, they are probably a more homogeneous group than the general population of laptop users. We recommend that further research be conducted with different consumer groups.

We also suggest that other studies access a greater number of respondents from lower socioeconomic strata. Increasing the contrast between higher and lower income consumers may help shed light on the relationship investigated under *H2*. Nonetheless, we believe that the relationships we identified between the theoretical constructs, based on information from the experiments, are relevant for contributing to the literature on co-branding and product evaluation.

Another limitation relates to the use of just one product category. A study opportunity would be to investigate whether co-branding between constituent and ingredient brands results in similar effects to those identified here in other product categories. Further research can also incorporate other constructs related to the consumers' assessment of co-branded products, such as involvement with the product, perceived risk reduction, choice criteria, the prestige and personality of the brand, and price.

Our research focused on the positive effects of co-branding on brands involved in the alliance. One study opportunity would be to verify whether co-branding functions for brands that have already undergone a recall or experienced episodes that might associate them with negative characteristics. Understanding if such a brand negatively affects the partner brand may lead to managerial implications for directing strategies, such as brand repositioning and decisions about the use of the brand in merger, acquisition, and product extension situations.

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Appendix 1

Attitude towards the brand (product) scale (Shamdasani *et al.*, 2001)

Original wording (in English)/Adapted wording (in Brazilian Portuguese), for the original scale selected items:

(1) I feel negative/positive towards the product./Não me sinto bem em relação ao produto/me sinto bem em relação ao produto.

(2) The product is awful/nice./Esse produto é horrível/esse produto é ótimo.

(3) The product is unpleasant/pleasant./Esse produto não me agrada/esse produto me agrada.

(4) The product is attractive/unattractive./Esse produto não é atrativo/esse produto é atrativo.

(5) I approve/disapprove the product./Não aprovo esse produto/aprovo esse produto.

Items omitted from the analysis: This is a bad/good product and I dislike/like the product.

Brand awareness/association (Yoo and Donthu, 2001)

Original wording (in English)/Adapted wording (in Brazilian Portuguese), for the original scale selected items:

(1) I can recognize X among other competing brands./Sou capaz de reconhecer essa marca entre outras marcas concorrentes.

(2) I am aware of X./Conheço a marca.

(3) Some characteristics of X come to my mind quickly./Algumas características da marca vêm rapidamente a minha mente.

(4) I can quickly recall the symbol or logo of X./Posso lembrar facilmente o símbolo ou logotipo da marca.

Items omitted from the analysis: I have difficulty in imagining X in my mind.

Appendix 2

Experiment	Constituent brand	Co-branding	Socioeconomic stratum	N	Product evaluation – mean (SD)
1	little-known	absence		41	3.10 (0.85)
1	little-known	presence		43	3.41 (0.78)
1	well-known	absence		64	3.68 (0.83)
1	well-known	presence		62	4.09 (0.69)
2	little-known	absence	lower	27	3.63 (0.73)
2	little-known	absence	upper	32	3.28 (0.97)
2	little-known	presence	lower	31	3.96 (0.94)
2	little-known	presence	upper	31	3.39 (0.80)
2	well-known	absence	lower	41	3.91 (0.96)
2	well-known	absence	upper	66	4.01 (0.87)
2	well-known	presence	lower	29	4.37 (0.60)
2	well-known	presence	upper	48	4.05 (0.72)

Table AI.
Descriptive statistics
for the product
evaluation variable
per experimental cell
(Experiments 1 and 2)

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