The Dilution Effects of a Line Extension on the Brand Portfolio

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Abstract

We investigate the dilution effects of an inconsistent line extension on the brand portfolio including the flagship product. This experiment replicates and extends the study conducted by John, Loken and Joiner (1998) in a different product category. Three hypotheses predict the dilution of beliefs of the parent brand, the flagship product and two other products (also under the parent brand) following the introduction of an inconsistent line extension. The results show that both the parent brand and individual product beliefs were diluted when subjects were given information about the inconsistent extension. However the flagship product beliefs were not diluted. Furthermore the beliefs of two other individual products within the portfolio were also diluted but only one was statistically significant.

Keywords: Line extensions, brand portfolio, flagship product.

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Introduction

Line extensions (a new product within the same category) are a more frequently used form of new product strategy than brand extensions (same brand, different category) within FMCG products (Kirmani, Sood and Bridges, 1999). Blichfeldt (2004) distinguishes between line extensions that merely fill the category compared to those that drive growth within the category. Most line extensions differ only marginally from the parent brand. Line extensions address the consumer's need for variety, have minimal risk, allow a brand to be offered at a wider range of price points and may solve excess production capacity problems (Quelch and Kenny, 1995). Despite the prevalence of line extensions most academic research has focused on the determinants of brand or category extension success and shows that the fit with the parent brand is very important (Keller, 2003). An inconsistent line extension has the potential to undermine its own success but also can damage the parent brand. Concerns have emerged in the literature about this dilution effect (a negative change in consumer beliefs) of inconsistent line extensions within the brand portfolio.

Literature

Some observers believe that the combination of both "wear out" and dilution effects of line extensions, results in the reduction of a brand's equity (Gibson, 1990). Nijssen (1999) found that retailer power, variety seeking behaviour and competitive intensity were all negatively related to extension success in a survey of manufacturers and that brand strength was not that important. Boush and Loken (1991) found that more typical extensions of the parent brand had greater consumer acceptance as did brands with more product lines within the range (breadth). Loken and John (1993) examined situations in which brand extensions could be more or less likely to dilute beliefs associated with the parent brand name. They found that dilution can occur when brand extension attributes are inconsistent with the parent brand beliefs. Loken and John (1993) compared the 'Bookkeeping model' and a 'Typicality-based model'. The bookkeeping model states that beliefs change incrementally as new information is received and that any new inconsistent attribute information about a brand extension results in a minor modification or updating of the corresponding parent brand beliefs. In contrast, the typicality based model argues that the less typical the product extension is of the parent brand, the less dilution of brand beliefs will occur. However if the extension is more typical, greater dilution occurs. Dilution refers to a negative brand belief or image degradation (Aaker 1991).

Chang (2002) found that the strong parent brand name of Sprite was diluted after the introduction of Sprite orange and Sprite washing-up liquids, regardless of their category similarity. When a brand uses its name on several products, one of the products develops a more central flagship role than the others (Supphellen, Eismann and Hem, 2004). A flagship product is defined as the product consumers most closely associate with the brand name. Buday (1989) argues the each new introduction under a parent brand umbrella forces the consumer to redefine what the brand stands for. Furthermore, line extensions can revitalize a brand (Munthee, Bick and Abratt, 2006). Keller and Aaker (1992) found that unsuccessful extensions did not affect the parent brand but that cannibalisation of the parent brand is

present in many line extensions. Reddy (1994) showed that line extensions of strong brands are more successful than weak brands and that the incremental sales of a line extension may help compensate for cannibalisation of the parent brand. Speed (1998) found that if the line extension was of a lower quality then cannibalisation could occur. The level of consumer motivation towards the purchase also moderates the effects of an extension on family name dilution (Gurlan-Cali and Maheswaran, 1998).

John et al. (1998) investigated the effects of line extensions on the product range i.e. the flagship product and other individual products. John et al. (1998) conducted three studies concerning the effects of product beliefs on line extensions. The first two studies examined whether or not the strength of the flagship product belief was diluted by firstly a moderately consistent line extension and secondly a more distant extension. These results showed that no dilution effect occurred. The third study examined the effects of an inconsistent extension, which contradicted the parent brand beliefs, on a flagship product and other individual products in the portfolio. Their findings showed that flagship product beliefs were diluted by an inconsistent line extension which was contrary to their hypothesis.

This study replicates the third study of John et al. (1998). It is predicted that beliefs about the parent brand, its flagship product and the other individual products will all suffer from dilution effects. Replication studies are necessary to confirm or reject empirical results and allow researchers to verify, extend, and generalise findings (Hubbard and Armstrong, 1994). In the area of brand extension research Sunde and Brodie (1993)'s replication of Aaker and Keller (1990) produced somewhat different findings from the original study. This replication will confirm the generalisability of John et al. (1998)'s findings using different brands, and products in a different category.

Accordingly the hypotheses based on John et al. (1998)'s findings are as follows:

H1: Parent brand beliefs are not immune to the dilution effects of an inconsistent line extension.

H2: Flagship product beliefs are not immune to the dilution effects of an inconsistent line extension.

H3: Individual product beliefs are not immune to the dilution effects of an inconsistent line extension.

Research Method

These three hypotheses were tested in an experiment using one control and one treatment group. Participants in the treatment group were presented with information about an inconsistent line extension and then asked to complete a questionnaire. The control group was not presented with any information but asked to complete a similar questionnaire. 173 participants were recruited using a mall-intercept technique from an Auckland shopping mall. For the experiment the parent brand stimulus was the Sanitarium brand which met the John et al. (1998)'s criteria as it was well regarded by consumers, had strong product attributes, had a flagship product and an extensive brand portfolio. The main attributes of the Sanitarium brand are health and nutrition (Sanitarium, 2002). The product portfolio is as follows: Sanitarium is the parent brand; Weetbix is the flagship product while the individual products

are soy milk and canned meals. For the treatment group, respondents evaluated these product lines according to the parent brand attributes of healthy and nutritious after presentation of the inconsistent line extension information. The control group also evaluated these lines but without the line extension information.

The treatment group was presented with details about the inconsistent hypothetical line extension Sanitarium Honey Corn breakfast cereal. This information conveyed that Sanitarium Honey Corn was an unhealthy breakfast cereal relative to other cereals and had low nutrition values including high sugar and fat levels. Respondents were asked to rate their beliefs about the parent brand, flagship and the two individual products for example "Sanitarium canned meals are healthy" using three items (Strongly agree =1, Strongly disagree =7, Likely-Unlikely 1-7 and Probable-Not at all probable 1-7) using a seven point scale. These three items were averaged to form a single score as per John et al. (1998)'s research.

Findings

Respondents' understanding of the line extension was first tested (2.5% failed), resulting in a sample of 169 respondents. The treatment and control groups consisted of 82 and 87 respondents respectively and the male/female split was 45/55%. The respondents remembered the line extension information as being easy to understand. The line extension, Honey Corn breakfast cereal, was considered to be inconsistent with the Sanitarium brand image. The overall mean score indicates the consistency of the extension was 4.04, above the scale midpoint and therefore slightly inconsistent with the Sanitarium parent brand. The reliability of this consistency measure was coefficient alpha = 0.93. T-tests were used to compare the differences in mean scores between the treatment and control groups and the results are presented in table 1.

Table 1 shows that firstly H1 was supported as the parent brand beliefs were diluted for both beliefs. This finding was consistent with the John et al. (1998) study. Secondly testing of H2 showed that the effects of the inconsistent brand extension were not significant with the flagship product. Thus the flagship brand's (Weetbix) beliefs were not diluted when details were given about an inconsistent brand extension. This finding is in direct contrast to John et al. (1998)'s findings that the flagship product beliefs were diluted on both attributes measured. H2 is rejected. Thirdly turning to H3, examining the results for the other products shows that the mean scores were in the right direction i.e. consumers in the treatment group rated the individual products less favourably because of the inconsistent line extension than the control group. However, only canned meals showed a statistically significant difference. Thus hypothesis three has only partial support.

Table 1. Means, Standard Deviations and t-values for Brand, and Individual Product Beliefs.

	Healthy Beliefs		Nutritious Beliefs	
	Honey Corn Cereal	Control Group	Honey Corn Cereal	Control Group
Variables	n = 82	n = 87	n = 82	n = 87
	Mean (std.dev)	Mean (std.dev)	Mean (std.dev)	Mean (std.dev)
Parent brand	3.65 (1.57)	2.70 (1.15)	3.59 (1.31)	2.53 (1.08)
t values, significance	-4.53	p = 0.00	-5.78	p= 0.00
Flagship product	2.36 (1.12)	2.26 (1.25)	2.48 (1.12)	2.58 (1.33)
t value, significance	0.56	p=0.56	0.54	p= 0.58
Canned meals	4.30 (1.38)	3.80 (1.31)	4.36 (1.46)	3.59 (1.28)
t value, significance	-2.39	p=0.018	-3.64	p= 0.00
Soy milk	3.33 (1.64)	3.05 (1.45)	3.56 (1.40)	3.39 (1.41)
t value, significance	-1.19	p=0.24	-0.78	p= 0.44

The results for the individual products canned meals and soymilk also highlight another finding. The mean scores for soymilk, regarded as being healthy and nutritious, are closer to the parent brand rating. However the mean score for canned meals which was rated much lower is near or below the scale midpoint. Because soymilk is healthy and nutritious there was no significant dilution when the inconsistent brand extension was introduced. However canned meals were rated less favourably on those attributes and suffered when the inconsistent line extension was introduced.

Discussion

From these results an inconsistent line extension appears to affect the product and brand beliefs within a portfolio differently. These results for H2 contradict the direction of John et al.'s findings with respect to the flagship product. The flagship product whose brand associations are closely and strongly linked with the parent brand appears to be immune from the dilution effects of inconsistent line extensions. In John et al. (1998)'s research the line extension was a close extension to the flagship product -Johnson and Johnson's baby shampoo with vitamin E. However in this research the line extension was inconsistent with the health and nutrition attributes of the parent brand. In addition, the inconsistent extension Honey Corn, although a breakfast cereal, may have been perceived as being different to Weetbix, a cereal biscuit. This extension also did not share the same brand name device i.e. Bix as in Fruity Bix (another Sanitarium cereal). The inconsistent extension in John et al. (1998)'s experiment -Johnson and Johnson shampoo with vitamin E was more typical of the flagship product in terms of both product form and brand name.

Furthermore Weetbix as a flagship product has very high brand equity (Young and Rubicam, 1994) while the Sanitarium corporate name has secondary, less prominent role on the Weetbix packaging. It is possible that brand equity differences between this flagship product which has a dominant share in breakfast cereals was stronger than the Johnson and Johnson brand

which is less dominant in the shampoo category overall. In addition the results also show the greater strength of the flagship product Weetbix compared to the parent brand Sanitarium (the mean scores overall indicate that Weetbix is more favourably rated than the parent brand). This strength not only reflects the consumer acceptance of this brand but the marketing resources this company uses in this market to build brand equity. The impact of marketing resources in line extension success was also a key component of Reddy et al. (1994)'s model. With the flagship product the product name Weetbix is dominant and the corporate or parent brand simply endorses the product name. The absence of dilution effects on the flagship product may be attributed to product specific beliefs. These beliefs are highly resistant to change as the flagship product has a very strong associative network of beliefs that are difficult to change. Sheinin (2000) noted that after experience with a brand extension, consumers changed their attitudes toward unfamiliar brands more so than with familiar brands.

While the focus of the John et al. (1998) study was on flagship products, a further finding is that other individual products within the brand portfolio can have their product beliefs undermined by an inconsistent extension. In this research only two products were measured but one of these, soy milk, was not diluted by the inconsistent extension. Less favourably regarded lines within the portfolio may be more vulnerable to the dilution effects of inconsistent line extensions. These findings for the individual products as well as the flagship brand support the typicality model.

The findings also indicate that different extension experiences result in different dilution effects. The dilution of the canned meals perhaps reflects the prominence of the parent brand Sanitarium on this range of products (Keller, 2003). In the canned meals case, the corporate or parent brand is dominant. For soy milk, again the corporate name endorses the product. In addition, soy milk which is a beverage more related to breakfast foods and the flagship product than canned meals which is a main meal alternative. These findings also highlight the vulnerability of the parent brand not the flagship product.

Although John et al. (1998) stated "we predict that an inconsistent line extension will dilute beliefs about flagship products" (p.27), they did observe that the opposing view that flagship products were less vulnerable to dilution was "even stronger"(p.20). Our findings confirm this alternative view. The reasons for the different results may lie in the relationship of the parent brand to the flagship product, the marketing support given the flagship product compared to the parent brand and the strength of brand associations of the flagship product. In this research the flagship product was only endorsed by the parent brand. With line extensions managers should not overestimate the power of the parent brand but also need consider the possible effects of line extension on less preferred product lines within the brand portfolio. Future research could examine dilution effects further by examining the effects of consistent versus inconsistent sub-branding strategies (brand modifiers) within the brand portfolio.

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