

Business-to-Business Brand Extension into Consumer Markets: An Investigation of Consumer Attitudes

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Abstract: *Leveraging a brand name into a new product category through brand extension facilitates success of the new brand extended, and reduces the introduction costs. The impact of parent brand extension on consumer attitudes is well-documented in branding literature. However an under-investigated area is whether business-to-business (b2b) brand equity can be leveraged in consumer markets (b2c) through brand extension. In this study we investigate the impact of parent b2b brand specific factors influencing attitudes to b2c brand extensions. Specifically, we measure the overall attitude (extension acceptance) of the b2c extension through a set of parent brand-specific constructs, such as brand knowledge, quality perception, CSR perception, and the perceived difficulty in extending the brand. We create four hypothetical b2c extensions of two well-known b2b brands, employing a quasi-experimental design. The results show that quality perception of the parent brand is the only significant determinant of consumer evaluation of b2c brand extensions for all extensions. The results for other factors are either extension-specific or relate to the category extended into, and shed light on consumer perceptions of extensions of b2b brands. The findings should inform managers of b2b brands planning to extend into consumer markets.*

Keywords: *business-to-business, brand extensions, quasi-experiments, consumer brands, attitudes*

1. INTRODUCTION AND BACKGROUND

What do Nokia, Philips, Microsoft, Mitsubishi and Caterpillar have in common? These firms originated as b2b brands and extended their products into the consumer markets, benefiting from the recognisability and brand equity of the parent brand. The advantages of leveraging a brand name into a new product category through brand extension are well-documented – e.g., reduced introduction costs, benefits from parent brand equity and distribution network. Despite the aforesaid examples of successful extensions and the resulting advantages, whether the b2b brand equity can be leveraged in business to consumer (b2c) markets remain under-investigated. This gap can be inferred from standalone brand extension studies either in the b2c (e.g., Montgomery, 1978; Aaker and Keller, 1990; Sullivan, 1992; Keller and Lehmann, 2006; Volkner and Sattler, 2006) or in the b2b domains (e.g., Low and Blois, 2002; Van Riel *et al.*, 2005; Morgan, Deeter-Schmelz and Moberg, 2007; Roberts and Merrilees, 2007; Walley *et al.*, 2007).

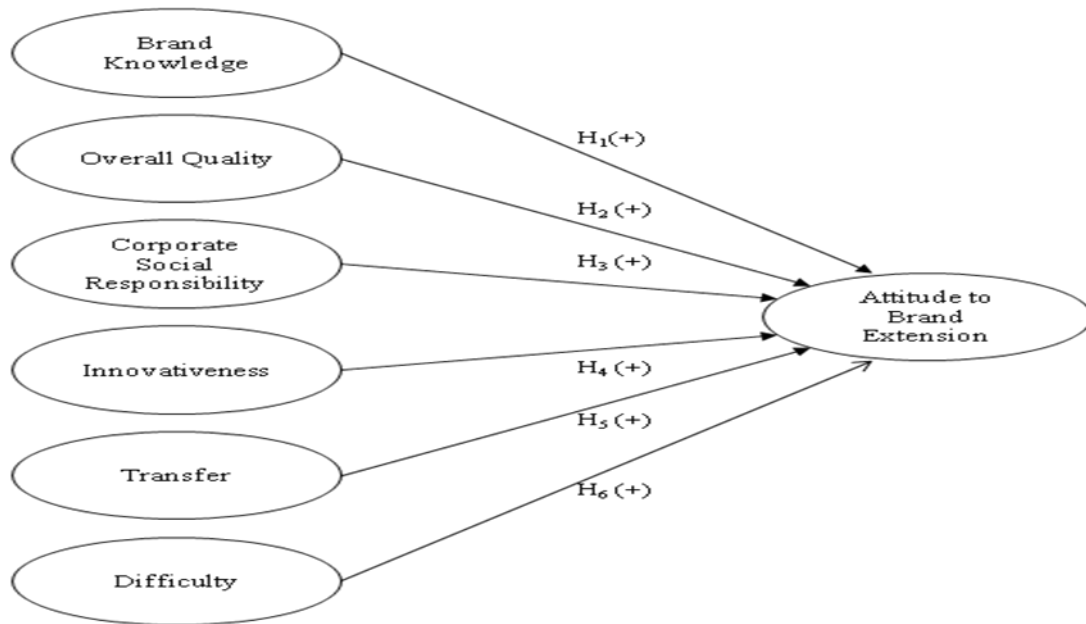
A review of the literature reveals only two studies that have investigated the impact of consumer evaluations of a b2c brand extended from the b2b domain – the studies by Phang (2004) and Tang, Liou and Peng (2008) examined the reciprocal effects of brand extensions on brand equity. The above studies examined consumer evaluations of cross-domain extensions (i.e. b2b to b2c) in the same product categories as the parent brands. Therefore knowledge about consumer attitude towards an extension in a non-related product category remains non-existent. Given this gap in the literature, we investigate the factors that determine consumer evaluation of the b2b brands extending into b2c domain.

Specifically, we measure the overall attitude (i.e. the extension acceptance) of the b2c extension through a set of parent brand-specific constructs (independent variables). With an aim to address the gap in the literature, our study examines brand extensions in unrelated categories with the selection of a b2b brand and a service brand, where each parent brand is evaluated on the basis of two b2c extensions (a) product offering and (b) service offering.

2. CONCEPTUAL FRAMEWORK AND HYPOTHESES

Our research is grounded in brand extension evaluation studies for predicting extension acceptance (Aaker and Keller, 1990, and its replications). We posit that consumer perceptions towards brand knowledge, quality, corporate social responsibility, innovativeness, transfer and difficult, will have an impact on their evaluation of the b2c brand extension. The causal relationships between the independent and the dependent variables are examined using a linear regression-based model, in line with the conceptual model and research objectives. Below we discuss the conceptual framework and the research hypotheses.

Figure 1: Conceptual Framework



Brand familiarity has been established as a pre-requisite for the formation of attitudes to brand quality (Keller, 2003) and in determining parent brand feedback effect (Thorbjornsen, 2005). In order to evaluate the attitudes towards brand, higher levels of parent brand knowledge is therefore a pre-requisite, leading to the first hypothesis:

H₁: Knowledge about the b2b parent brand will have a positive influence on attitudes toward the b2c brand extension.

Quality is often used by consumers to assess the acceptance of a product (Zeithaml, 1988; Aaker and Keller, 1990). A number of studies have found a positive relationship between perceived quality of the parent brand and its extension (Sunde and Brodie, 1993; Bottomley and Holden, 2001; Phang *et al.*, 2004; Tang *et al.*, 2008). This leads to the second hypothesis:

H₂: Quality perceptions towards the b2b parent brand will have a positive influence on attitudes towards the b2c brand extension.

Marketing efforts directed towards product innovativeness lead to perceptions of corporate expertise and thus have a positive impact on corporate brand extensions, as suggested by Aaker and Keller (1990). The authors further state that, being an innovator induces perceptions of being up-to-date with technology, engineering and other specialized skills facilitating positive consumer evaluations of the extension. Therefore the third hypothesis:

H₃: Perceptions of innovativeness toward the b2b parent brand has a positive influence on attitudes toward the b2c brand extension.

Corporate marketing activity is known to provide a direct marketing benefit by improving perceptions and evaluations of a corporate brand extension (Aaker and Keller, 1990). Supporting the above view, Kitchin (2003) states that the responsibility to deliver programs directed towards benefiting the environment and society enhances the perceptions of the parent brand and its extensions, leading to the fourth hypothesis:

H₄: Perceptions of corporate social responsibility of the parent b2b brand has a positive influence on attitude towards the b2c brand extension.

Boush and Loken (1991) propose that if the parent brand and the extension are perceived as being similar, the attribute associations of the original brand are transferred to the extension. Aaker and Keller (1990) put forth a similar view that, if consumers perceive a 'fit' between the parent brand and the extension, it will help transfer quality perceptions of the parent brand to the new brand extension. Therefore the fifth hypothesis:

H₅: Perceptions towards resource transferability of a b2b parent brand has a positive influence on the attitudes to b2c brand extension.

Aaker and Keller (1990) suggest if a brand is perceived to be too easy or too difficult to make, it may lead to negative attitudes towards the extension. The perceived difficulty in creating the brand extension leads to the sixth hypothesis:

H₆: Perceptions of the difficulty towards the b2b parent brand in making the product category of the b2c extension has a positive influence on the attitude to the extension.

3. RESEARCH DESIGN AND DATA

In order to address the objectives of this study an experimental design was devised (e.g., Aaker and Keller, 1990; Phang, 2004; Tang *et al.*, 2008). First we selected two globally recognized b2b brands – Xerox and DHL. Scenarios for fictitious b2c extensions for both brands were then created. One brand extension scenario consisted of Xerox extending into digital camera (unrelated product) and a web-based album (unrelated service). The second scenario consisted of DHL extending into a new consumer product line consisting of travel luggage (unrelated product) and ‘packing and moving’ business (unrelated service). Thus the extensions were created in unrelated b2c product and service sectors for both Xerox and DHL, as summarised in Table 1 below.

Table 1: Scenarios representing b2b to b2c extensions

B2B Brands	B2C Extensions	
	Product	Service
XEROX	Digital Camera	Web-based Photo Album
DHL	Travel Luggage	Packers and Movers

A questionnaire was developed using the measures and scales employed by related studies (e.g., Aaker and Keller, 1990; Phang, 2004; Tang *et al.*, 2008). Measures pertaining to brand knowledge were specified first, followed by those on quality, transfer, difficult, CSR, and innovativeness, all anchored on a seven point likert-type scale (a combination of single and multiple-item scales, see Appendix for a list). Using convenience sampling, the data were collected from a cross section of UK adults through a web-based survey. The following usable numbers were obtained for each scenario after eliminating incomplete replies: Xerox Web Album = 71, Xerox Digital Camera = 80, DHL Packers and Movers = 69, and DHL Travel Luggage = 69.

4. RESULTS

The small sample size led to the adoption of Partial Least Squares (PLS), using PLSGRAPH software developed by Chin (2003). PLS-SEM maximizes the explained variance of the dependent latent constructs; a detailed explanation of PLS and its comparisons against covariance based SEM can be found in, amongst others, Chin (1998), Haenlein and Kaplan (2004) and Hair *et al.* (2012). When employing PLS the measurement and structural parameters are estimated simultaneously, while examination takes the form of a two-stage approach with assessment of the reliability and validity (for RLVs) followed by assessment of the structural model (see Barclay, Higgins and Thompson, 1995).

Reliability of the RLVs (Innovativeness – 2 items and CSR – 3 items) was confirmed by retaining scale items/indicators that (a) exhibited loadings with the intended construct of 0.70 or more, and (b) were statistically significant following bootstrapping analysis (500 subsamples; Mathieson, Peacock and Chin, 2001). For overall scale reliability (composite reliability) the measure developed by Fornell and Larcker (1981) was employed with a benchmark of 0.70. Convergent validity was tested by examining the average variance extracted (AVE) proposed by Fornell and Larcker (1981) with values greater than 0.50 indicating acceptable convergent validity. Examination of the information presented in Table 2 below indicates that the adopted scales met the above criteria. In addition, discriminant validity was confirmed through comparisons between the square root of a construct’s AVE with its bivariate correlations with the remaining constructs.

Table 2: Measures of Validity and Reliability

	CR	AVE		CR	AVE
DHL & Travel Luggage			Xerox & Digital Camera		
Innovativeness	.952	.908	Innovativeness	.945	.896
CSR	.937	.832	CSR	.948	.859
DHL & Packers and Movers			Xerox & Web Album		
Innovativeness	.948	.897	Innovativeness	.963	.928
CSR	.908	.767	CSR	.914	.820

For the structural model, PLS does not make assumptions about the distribution of the variables and consequently traditional parametric-based approaches cannot be employed. Instead we refer to R² values of the dependent variable and the significance of the pathways (with bootstrap resampling analysis of 500 sub-samples, e.g., see Barclay *et al.*, 1995; Chin, 1998). We examine the predictive relevance of the dependent variable with the help of Stone-Geisser (Q²) index (rule of thumb: positive). The results presented in Table 3 indicate that for all brand extension scenarios the model demonstrates considerable explanatory power and possesses predictive validity.

In terms of the significance of the hypothesized functional relationships, we observe that quality is significant across all b2b extension scenarios. Brand knowledge is significant for all extensions, except for Xerox Web Album. Examining the significance results for each scenario, we find that overall the variables are significant predictors of attitudes towards Xerox-based b2c extensions in products and services, except for difficult variable. In comparison, only two variables – brand knowledge and quality are significant predictors of attitudes towards DHL-based b2c extensions. For the two b2b-related variables – CSR and innovativeness are significant only for Xerox. Based on the above observations, we partially accept H_1 and fully accept H_2 , and reject the other hypotheses.

Table 3: PLS Results for Attitudes to B2C Brands (Four Extension Scenarios)

	Xerox Web Album	Xerox Digital Camera	DHL Packers & Movers	DHL Travel Luggage
Brand Knowledge	.082 (0.692)	.146 (1.66)*	.168 (1.89)*	.240 (2.24)*
Quality	.667 (3.65)***	.883 (9.19)***	.844 (7.10)***	.783 (5.37)***
Transfer	.316 (2.78)**	.180 (1.89)*	.028 (0.39)	.100 (0.91)
Difficult	.044 (0.44)	.050 (0.72)	.004 (0.05)	.051 (0.44)
CSR	.239 (1.93)*	.163 (1.74)*	.123 (1.30)	.142 (0.92)
Innovativeness	.316 (2.07)*	.244 (2.14)*	.145 (1.09)	.057 (0.42)
R ²	0.372	0.388	0.667	0.381
Q ²	0.160	0.201	0.618	0.149

Note: * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

5. CONCLUSIONS, IMPLICATIONS AND FURTHER RESEARCH

The purpose of our study is to investigate consumer attitudes towards b2b brands extending into the b2c domain. Our results show that quality of the parent b2b brand is the only significant determinant of attitudes in all four b2c brand extensions, as corroborated in other studies, such as Aaker and Keller (1990) and Tang *et al.* (2008). Our results demonstrate the importance of parent brand knowledge in evaluation of b2c extensions in all cases, except Xerox Web Album. In terms of transfer of resources, we report that consumers perceive Xerox to be capable of easily extending itself both in product and service domains. On the contrary, transfer will not be easy in either domain for DHL, we speculate this result points to a link between the perceptions towards DHL's resource availability and extension evaluation. We recommend further research to ascertain the factors leading to such perceptions.

In addition, we found a clear pattern for the two constructs related to b2b brands, i.e. CSR and innovativeness. The above constructs are significant determinants of consumer attitudes towards b2c extensions of Xerox but do not hold for DHL's b2c extensions. We speculate that the above differential result could be due to the tangible nature of Xerox b2b parent brand as compared to DHL which is an intangible service brand. We recommend further investigation and generalisation of these findings.

The differential patterns of our results suggest that a b2c brand extension unrelated to the parent b2b brand is not favourably evaluated by consumers, implying that managers should exercise caution while extending b2b brands into b2c domain. We speculate that a b2c extension is more likely to succeed if it has a high level of perceived 'fit' with the parent b2b brand, as suggested by Tang *et al.* (2008). Further, the quality of the parent b2b brand plays an important role in brand extension acceptance, therefore well-established brand that have stronger quality perceptions are more likely to succeed with their extensions. Our results also lead us to conjecture that there is a risk involved in detaching the brand extension category (i. e. extending in unrelated categories) since the attribute associations or resources may not be perceived as transferable to the extended brand, an issue that merits further investigation.

Our findings can inform the managerial selection process of a b2c extension category. For example, our results regarding transferability hold only for Xerox, managers of a b2b tangible brand planning extensions should therefore select b2c categories where attribute associations are easily transferable. An example of a successful transfer of b2b brand attribute association into b2c is the brand Caterpillar. The parent b2b brand Caterpillar is known for its heavy machinery and equipment used on rugged terrain; the b2c extension of Caterpillar in fashion clothing and footwear positioned with attributes similar to the parent brand has gained high consumer acceptability.

Our findings contribute to extant evidence on consumer attitudes towards extensions of b2b brands into the b2c domain, as well as provide managerial implications for b2b brand management. The adopted conceptual model provides opportunity for further modifications and investigations on this topic. Based on our findings we recommend further empirical studies on extension strategy in the b2b context. An interpretation of the above results is that a tangible b2b

product category could find its b2c extensions more acceptable to the consumers. This result could be examined further in different scenarios involving a b2b 'service' brand extending into b2c categories.

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Appendix

Scale items

Brand Knowledge

How familiar are you with this brand?

Quality

How do you perceive of the overall quality of this product?

Innovativeness

Products made by this brand are modern and up-to-date

Products by this brand have the latest technology and features

CSR

This brand is involved in helping the community

This brand is socially responsible

This brand is concerned with the environment

Transfer

The resources of the brand can be utilised to make this product

Difficult

The brand will find it difficult to make this product