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Antecedents of Brand Credibility under Asymmetrical Information

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Abstract

This study focuses on the antecedents of brand credibility and validates part of the model presented by Erdem and Swait (1998). Following the signalling literature, we argue that under asymmetrical information, the importance of brand credibility stems from the capability of brands to inform consumers who are uncertain about product attributes. Indeed, firms may use brands to notify consumers about product positions and to assure that their product claims are credible. Using information economics as theoretical background, the proposed perspective determines how credibility is shaped. Data was collected across a number of consumers in Australia via a self-report survey and a structural equation model (SEM) was estimated. The results provide empirical evidence and support the work of Erdem and Swait (1998).

Introduction

“Persuasion is achieved by the speaker’s personal character when the speech is so spoken as to make us think him credible [emphasis added]. We believe good men more fully and more readily than others: this is true generally whatever the question is, and absolutely true where exact certainty is impossible and opinions are divided” (Aristotle, 350 BC [1990], p. 153).

The concept of credibility is intuitive, it is also, however, the source of many debates. The academic investigation of the notion is as old as the argument of rhetoric per se, having its roots in the ancient Greek philosophy. Yet, its inherent quality overshadows its underlying complexity. The meanings and definitions of credibility are varied, as are the endeavours that have been undertaken to identify and measure its significance (cf. Meyer, 1988; Newell and Goldsmith, 2001; Self, 1996). However, the common denominator and importance amongst all the explored concepts rest on the ability of credibility to affect persuasion.

Our project focuses on how consumers use various types of brand signals to infer the credibility of the brand (product) promise. The objective of the present study is to identify and measure the meanings of credibility in the circumstance where information asymmetry is present in the marketplace. Following the signalling literature established in information economics (e.g., Akerlof, 1970; Spence, 1973; Stigler, 1961), and the subsequent application offered by Erdem and Swait (1998), we argue that under asymmetrical information, the significance of brand credibility stems from the capability of brands to inform consumers who are uncertain about product attributes. Notably, when potential buyers find difficulty in determining the product quality prior to the goods experience (i.e. experience goods), firms may use brands as an information vehicle to notify consumers about product positions and to assure that their product claims are credible. Indeed, one of the characteristics of a brand name is its ability to communicate unobservable quality (Borden, 1942; Erdem and Swait, 1998). Brands can influence choice by serving as a proxy for unobserved attributes, or by possessing an inherent image that consumers demand (Sullivan, 1998).

The structure of this paper is as follows. We first review literature relevant to the concept of brand credibility and its antecedents and then develop the hypotheses. Next follows the research methodology, the results and a section discussing further research and implications.

Brand Credibility

Uncertainty about quality is a prevalent and central characteristic of markets for most companies' goods and services. Generally speaking, it can be argued that the quality level of most services is impossible to assess before their use (e.g., experience goods such as hairdressing, plumbing, electrical work etc.) whilst in another particular service category, the level quality is hard to ascertain even after their consumption (i.e., credence goods). For example, the quality of the service provided by a tax accountant with regards to a tax return is very complicated to appraise, from a consumer perspective, even after the tax return has been lodged as, unless the Tax Office checks the tax return and verifies its accuracy in all details, the consumer will never know whether the tax return has been calculated correctly or not. The Australian Tax Office, for instance, reserve their right to ask for proof of the reliability of the information provided in the tax return, up to five years after the tax return has been lodged (Australia Tax Office, 2005). Finally, another important class of products whose quality is very problematic to judge before purchase/consumption is consumer durables. For example, when a new car model is launched, it is very difficult to know what its maintenance record will be.

In situations where consumers are faced with inadequate or insufficient information about the quality level of products/services, they may rely on heuristics devices known as *signals* in lieu of a comprehensive information search. A *signal* is an action or a fragment of information transmitted by the "sender" (a company) that enables the "receiver" (the customer) to make additional conjectures about the product or the store subject to that signal. Consumers are likely to use signals as heuristics because they have "neither infinite time horizons nor the incentive to perform thorough comparative studies prior to purchase" (Dawar and Parker, 1994, p. 83). Consumers are thus using signals as knowledge heuristics or knowledge substitutes in lieu of a comprehensive information search for attributes and qualities. In such situations firms may use brands as an information vehicle, or signals, to notify consumers about product positions and to assure that their product claims are credible. A brand signal is made of a company's past and present marketing mix strategies and activities coupled with that brand. Thus, a brand develops into a signal because it embeds a company's past and present marketing strategies. When information in the marketplace is asymmetric and imperfect, brands may serve as credible market signals. The credibility of a brand signal is perhaps its most significant attribute (Erdem and Swait, 1998). Signalling theory argues that signal credibility determines whether a market signal conveys information effectively (Tirole, 1990). Erdem and Swait (1998) suggest that the credibility of the signal is determined by its *clarity* and its *consistency*. The *clarity* of a brand signal refers to the absence of ambiguity in the information conveyed by the brand's past and present marketing mix strategies and related performance. One characteristic affecting the *clarity* of a brand signal is its *consistency*, that is, the degree to which each element of the marketing mix reflects the intended marketing strategy. *Consistency* may relate to some elements of the marketing mix (e.g., to sell a high quality product through a high quality retailer) or to the components of each marketing element (e.g., research shows that consumers perceive greater fit between a brand and its extensions when the extensions share the same concept as the brand than when they do not (Park *et al.*, 1991)), as well as to the conformity of mix elements to the objectives to be

achieved (Shapiro, 1985). Thus, the more *consistent*, the less ambiguous (viz. the clearer) the signal is.

Finally, the credibility of the signal relies on the commitment companies demonstrate towards their own brands. One proxy measure of commitment is *brand investments*. Rao *et al.* (1999) argue that brands can offer a “bond” other than prior investment in reputation. This bond representing future profits would be lost, should a high quality brand claim were to misleadingly offer low quality products. Hence, according to Rao *et al.* (1999), a credible brand that has already spent money in building brand reputations activities will lose that investment should that brand offer low quality products. Brands that damage their credibility cannot command the premium associated with their reputation and brand investments (Erdem and Swait, 1998).

In summary, following Erdem and Swait (1998) we can then state that, *brand investments* emphasise the *credibility* of a brand signal by encouraging firms to be honest in their product claims and to maintain the promise embedded in the brand since *brand investments* are vulnerable to punishment by the market. *Credibility* of a brand signal also relies on the *consistency* of its marketing mix strategies, because *consistency* influences consumers’ perceptions of companies’ intentions and ability to deliver the promised products. Finally, the *clarity* of a brand signal should also affect signal *credibility* because consumers may believe that brands that are willing and able to offer the promised products would send a clear signal.

Hypotheses

Our current goal is to determine and measure the antecedents of brand credibility under the condition of asymmetrical information, giving additional validity to the model offered by Erdem and Swait (1998). Extant work (see Erdem *et al.*, 2006) has tested the role of brands as signals of product positions across different countries, however, Australia was not part of the analysis. Further, in surveying previous studies that have used Erdem and Swait’s, we found the work of Sweeney and Swait (1999). However, that study employed a sample selected from a list of households in a large North American metropolitan area. As far as we know, in Australia only Vocino and Oppewal (2005) employed part of Erdem and Swait model, examining a retail context. We believe that our study is the very first application of Erdem and Swait in Australia in a brand context. It is also important to remark that while most of previous work that has used Erdem and Swait’s has been undertaken with university students (see e.g. Erdem and Swait, 1998; Erdem and Swait, 2004; Erdem *et al.*, 2006; Vocino and Oppewal, 2005), we will, as described in the Methodology section, be using a survey sample based on age and geographic criteria comparable to the Australian Bureau of Statistics demographics of the Australian population aged 18 years and over.

Thus, following Erdem and Swait (1998) and in light of our prior discussion, the following hypotheses are proposed:

H1: The credibility of a brand signal increases with (a) the perceived level of brand investments, (b) the perceived level of consistency, (c) the perceived level of clarity of the brand signal, and

H2: The clarity of a brand signal increases with the consistency of the signal.

Methodology

This study collected web-based self reported survey data from 236 people who took part in an online panel to assess the credibility of brands in the jeans and digital cameras product categories. In this paper we report preliminary findings based on the analysis of one brand in each product category. We use scales similar to the ones used by Erdem and Swait (1998; 2004). Consistent with Erdem and Swait (1998; 2004) all items were measured on 9 point *agree/disagree* scale. A structural equation model (SEM) was estimated using the maximum likelihood method in LISREL 8.54 (Jöreskog and Sörbom, 2003). A conventional requirement in the latent variable literature is 5-10 observations per parameter (Bentler and Chou, 1988, p. 173). In our structural model there are \cong 10 observations per parameter (236/24, please refer to the number of parameters in Table 1, Model 3), therefore we believe the use of SEM being appropriate.

Results

Considering that the scales had been validated in previous studies (cf. Erdem and Swait, 1998; Erdem and Swait, 2004; Erdem *et al.*, 2006; Sweeney and Swait, 1999; Vocino and Oppewal, 2005) we directly used Confirmatory Factor Analysis (CFA). As suggested by Anderson and Gerbing (1988) in order to achieve unidimensionality of each factor (i.e., Consistency, Brand Investment, Clarity and Brand Credibility) a measurement model embedding the 4 factors (latent variables) with 16 selected items was estimated whereby each item was prescribed to load on one factor only.

Table 1: Fit Measures of the CFA Model of Brand Credibility

| Fit measure | N = 236 | | |
|-------------------------------|---|--|--|
| | Model 1 Congeneric Model (16 items 4 factors) | Model 2 Congeneric Model (8 items 4 factors) | Model 3 Structural Model (8 items 4 factors) |
| χ^2 | 465.62 | 21.40 | 22.130 |
| Degrees of freedom | 98 | 13 | 14 |
| P | 0.000 | 0.065 | 0.093 |
| Number of parameters | 38 | 23 | 24 |
| χ^2/df | 4.751 | 1.646 | 0.922 |
| SRMR | 0.058 | 0.022 | 0.026 |
| GFI | 0.780 | 0.980 | 0.980 |
| AGFI | 0.700 | 0.940 | 0.940 |
| CFI | 0.960 | 1.000 | 1.000 |
| Incremental fit index | 0.960 | 1.000 | 1.000 |
| Not-normed fixed fit index | 0.950 | 0.990 | 0.990 |
| RMSEA | 0.130 | 0.051 | 0.047 |
| RMSEA lower bound | 0.120 | 0.000 | 0.000 |
| RMSEA upper bound | 0.150 | 0.089 | 0.085 |
| P value for test of close fit | 0.000 | 0.440 | 0.500 |

SRMR, standard root mean square residual; GFI, goodness-of-fit-index; AGFI, adjusted goodness-of-fit-index; CFI, comparative fit index; RMSEA, root mean square error of approximation.

As exhibited in Table 1, Model 1, the measurement model estimation had a poor representation of the data, with fit indices failing to meet acceptable levels (see Hu and Bentler, 1999). Hence, in order to identify misfitting parameters and get a clear factor structure with unidimensional factors, CFA was employed in an exploratory fashion (see e.g. Lastovicka *et al.*, 1999; Netemeyer *et al.*, 1996). Scale items showing high modification

indices or residuals were subsequently removed from the variable list. These may be derived from non-normally distributed data, model misspecification, or nonlinear relationships amongst some variables and negatively affect the model fit at large (Jöreskog and Sörbom, 1996). As suggested by Anderson and Gerbing (1988; see also Gerbing and Anderson, 1988), significant cross-loading items were also removed. As a result, the original 16 item list was reduced to 8. Thus, a second measurement model was estimated and, this time, as exhibited in Table 1, Model 2, the model had a good representation of the data.

Finally, in order to test our previously stated hypotheses we modelled the relationships of the four constructs (see Figure 1). As exhibited in Table 1, Model 3, and in Figure 1, while a little covariance was accounted between the two manifest variables cons1 and inv1, the goodness of fit indices show a good fit of the model to the data. However, as shown in Figure 1 the relationship between Consistency and Brand Credibility was not significant at $p = 0.05$. Thus, all the hypotheses except H1b were supported.

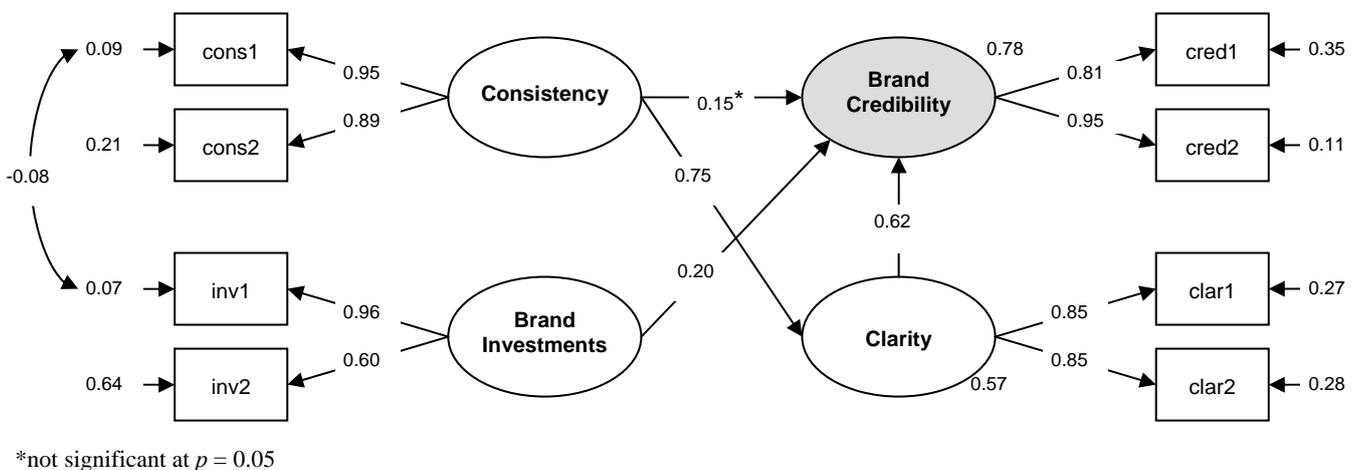


Figure 1: Structural relationship of Brand Credibility

Conclusion

In this paper it has been argued that brand names can act as brand signals to consumers when they make their purchase decisions. Based on the branding literature, and following the work of Erdem and Swait (1998), we developed initial hypotheses concerning the antecedents of brand name credibility. Preliminary tests of these hypotheses on a sample of consumers seem to provide empirical support to the model issued by Erdem and Swait. Clarity and Brand Investments are positively related to Brand Credibility but, at the 95% confidence level, Consistency only has an indirect effect on Brand Credibility. The latter seems in contrast with Erdem and Swait but in their model the authors adopted a 90% confidence level to accept the direct relationship between Consistency and Credibility. In our case the relationship between Consistency and Credibility has a t-value of 1.332 which reflects a very close to 90% confidence level ($\cong 89\%$).

Future research should continue testing the model offered by Erdem and Swait in a variety of contexts and data collection methods, including experimental settings. This research should focus on examining the effects of Brand Credibility on Perceived Quality, Information Costs Saved and Perceived Risk which in turn affect Customer Brand Equity, to provide further support to the whole of the framework proposed by Erdem and Swait.

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