Brand Credibility in Services – Antecedents and Outcome

Abstract

This paper examined key antecedents and outcome of brand credibility in services. Based on the literature on signaling theory, a conceptual model was proposed and tested by a sample of 318 customers of mobilephone services in Vietnam. The results indicate that brand credibility has a positive effect on willingness to purchase. Further, brand investments, signal consistency, and clarity are factors that explain brand credibility. In addition, brand investments underlie signal consistency and clarity. The results also reveal that those relationships were found to be different between new and older service providers.

Key words: Signaling theory, Services, Structural equation modeling

Introduction

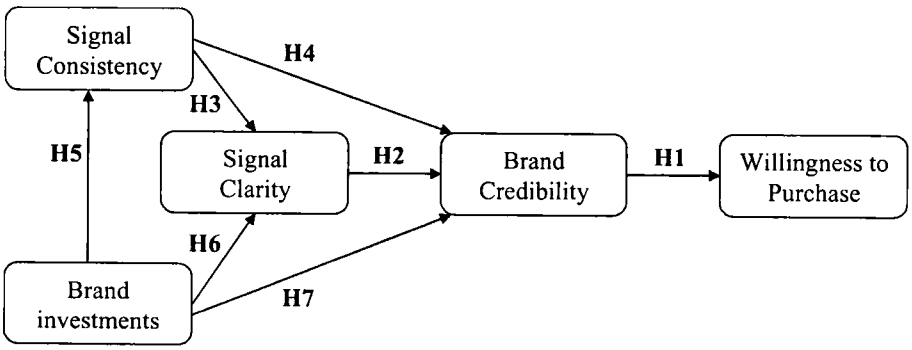
Signaling theory derived from the information economics literature under the condition of asymmetric information (Spence 1973). Signaling theory has been widely applied in research in marketing such as in studies of brand equity (Erdem and Swait 1998; Erdem, Swait, and Louviere 2002), warranty, product quality (e.g., Boulding and Kirmani 1993; Rao, Qu, and Ruekert 1999; Soberman 2003), price (e.g., Simester 1995; Srivastava and Lurie 2004), advertising (e.g., Caves and Greene 1996; Kirmani and Wright 1989).

Service providers know the quality of their services better than their consumers which is known as the asymmetry of information. In addition, several services are of experience quality (Zeithaml and Bitner 2000), therefore, it is difficult for customers to evaluate them before consumption. This requires a need for service providers to use credible signals to inform the quality of their services to consumers, and signaling is useful (Kirmani and Rao 2000). However, little research has been devoted to explore the usefulness of signaling theory in services. To bridge this gap, this study aims to apply signaling theory to investigate the willingness to purchase a service by customers. Specifically, it explores the role of brand credibility on customers' willingness to purchase a service, as well as the effects signal consistency, clarity, and brand investments on brand credibility. In addition, it examines the impacts of brand investments on signal consistency and clarity. The paper is organized around four key points, (1) literature review and hypotheses, (2) the method, (3) data analysis and results, and (4) discussion and conclusions.

Literature review and hypotheses

A conceptual model is shown in Figure 1. In this model, signal clarity, consistency, and brand investments are antecedents of brand credibility. In addition, the consistency of a brand signal and brand investments are also antecedents of signal clarity. Finally, willingness to purchase is the outcome of brand credibility.

Figure 1: Conceptual model



When information asymmetry exists and service providers know about their service quality better than buyers, several marketing-mix elements, such as warranties, advertising, prices, brand names, can serve as signals of a brand's quality (see Kirmani and Rao 2000 for an extensive review). These marketing signals convey information about the brand to consumers (e.g., Erdem

and Swait 1998; Erdem, Swait, and Louviere 2002; Boulding and Kirmani 1993). In such a setting, customers would also like information that can help them to distinguish high quality services from low quality services. Therefore, marketing signals play an important role when consumers are not ready to evaluate the quality of a service before consumption.

The content of a marketing signal sent to customers has three important properties: clarity, consistency, and credibility (Erdem and Swait 1998). Signal clarity refers to "the absence of ambiguity in the information conveyed by the brand's past and present marketing mix strategies and associated activities"; signal consistency is "the degree to which each marketing mix component or decision reflects the intended whole", and brand credibility, defined as the credibility of a brand's signal, "underlies consumer confidence in a firm's product claims" (Erdem and Swait 1998, 137).

Brand credibility is the key characteristic of a brand signal because it determines the effectiveness of information conveyed (Tirole 1988). When a market is characterized by imperfect and asymmetric information, it is important that a firm should communicate credible information about the brand to customers. A credible signal can serve as a source of knowledge about the brand. Therefore, it lessens customers' perceived risk as well as costs of gathering and processing information (Erdem, Swait, and Louviere 2002). Accordingly, if customers believe that the brand's signal is credible, i.e., the firm is able and willing to deliver what is promised, they form a positive attitude toward the brand, leading to the willingness to purchase the brand. In other words, when prepurchase information is scarce, brand credibility is an essential factor that determines the choice of customers (Erdem and Swait 2004; Kirmani and Rao 2000; van Osselaer and Alba 2000).

Signal clarity assists customers to easily identify what a service provider would like to inform its target customers, such as the brand's attributes and position. To make a signal clear, every marketing-mix signal should be consistent, i.e., reflecting the same attributes, objectives, position, and stable over time (Erdem and Swait 1998). Therefore, signal consistency is essential to signal clarity. In addition, signaling theory suggests that most rational firms are unlikely to send false signals if the signals increase costs in terms of immediate profits, future profits, and reputation (brand image) (Tirole 1988). As a result, signal clarity and consistency are vital to signal credibility because customers may believe that only quality service providers would send clear and credible signals to their consumers.

A service provider should invest in its brand to demonstrate that the firm commits to the brand, and to assure that its service claims are to be delivered (Erdem and Swait 1998). Brand investments motivate customers to believe that the firm is willing and able to provide them the expected service. This motivates the firm to send clear and consistent signals to its customers with an expectation of a return in the brand's image. Consequently, brand investments facilitate the clarity, consistency, and credibility of brand signals. The above discussion leads to the following hypotheses:

H1: Higher signal credibility will lead to higher willingness to purchase.
H2: Higher signal clarity will lead to higher signal credibility.
H3: Higher signal consistency will lead to higher signal clarity.
H4: Higher signal consistency will lead to higher signal credibility.
H5: Higher brand investments will lead to higher signal consistency.
H6: Higher brand investments will lead to higher signal clarity.
H7: Higher brand investments will lead to higher brand credibility.

Method

The sample and measures

A sample of 318 in-service training students, both undergraduate and post-graduate, in the University of Economics, Ho Chi Minh City and Vietnam Fulbright Economics Teaching Program was surveyed to test the measurement and theoretical models. All four mobile service providers in Vietnam – Vinaphone, Mobifone, S-phone, and Viettel – were selected for the survey. Vinaphone and Mobifone have already established their names in the market, and S-phone and Viettel were new players.

The measures of brand investments, signal clarity and consistency, and brand credibility were based on the scale developed by Erdem and Swait (1998). Brand investments, signal clarity, and willingness to purchase (WTP) were measured by three items each. Signal consistency and brand credibility were measured by four items each (see Appendix for the items).

Data analysis and results

Measurement validation

The scales used in this study were first refined via Cronbach alpha, and then assessed utilizing confirmatory factor analysis (CFA). Structural equation modeling (SEM) was used to test the theoretical model. All measures satisfied the requirement for alpha reliability ($\alpha_{\text{brand investments}}$ = .72; $\alpha_{\text{signal clarity}}$ =.78; $\alpha_{\text{signal consistency}}$ = .86; $\alpha_{\text{brand credibility}}$ = .84; α_{WTP} =.87). The CFA results of the final measurement model indicate that the model received an acceptable fit to the data ($\chi^2_{[109]}$ = 298.70, p = .000, GFI = .903, CFI = .935, RMSEA = .074). A closer inspection of item loadings and correlations among constructs revealed that all item loadings were significant and sufficient ($\geq$ .50) and all construct correlations were significantly less than unity ($p < .001$), supporting the requirements for convergent and discriminant validity (Steenkamp and van Trijp 1991).

Structural results: theoretical vs. rival models

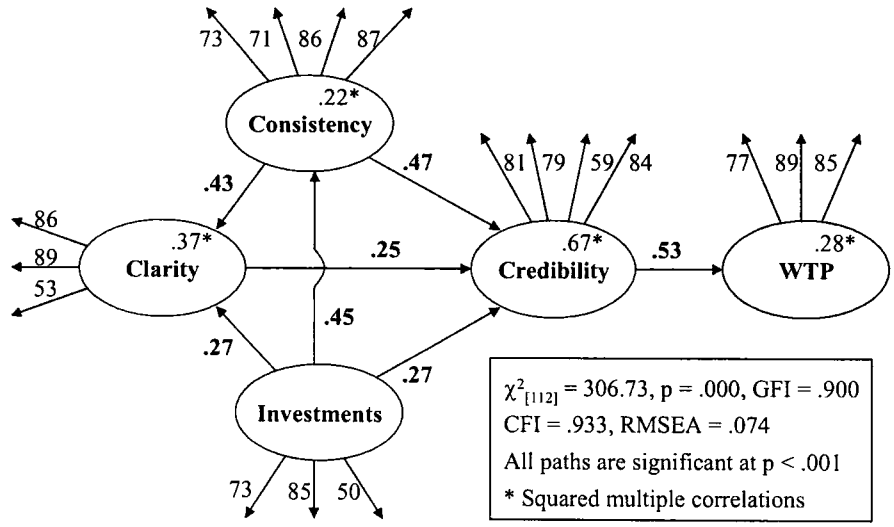
It is important to test a model against its rivals (Bagozzi 1984), therefore, a rival model was proposed. The rival model was established by hypothesizing that both signal consistency and clarity have an impact on willingness to purchase. This is because signal clarity and consistency facilitate service buyers in gaining knowledge about a service before making purchase decisions. Greater degree of consistency and clarity of a brand signal may help them to make such decisions.

The SEM results show that the theoretical model received an acceptable fit to the data ($\chi^2_{[112]}$ = 306.73, p = .000, GFI = .900, CFI = .933, RMSEA = .074). The results also indicate that the rival model did not receive a better fit ($\chi^2_{[110]}$ = 305.25, p = .000, GFI = .901, CFI = .933, RMSEA = .075) compared to the theoretical model, but consumed two additional degrees of freedom. Also, the two additional paths hypothesized in the rival model were not significant ($p > .23$). Consequently, the theoretical model was chosen. Also, all of the hypotheses were supported. Figure 2 shows the unstandardized estimates and Table 1 shows the unstandardized estimates of the structual coefficients.

Table 1: Unstandardized estimates of the theoretical model

Paths			estimate	Std error	t-value	p-value
Investments	→	Consistency	.45	.065	6.89	.000
Consistency	→	Clarity	.44	.069	6.46	.000
Investments	→	Clarity	.27	.068	3.93	.000
Consistency	→	Credibility	.47	.063	7.40	.000
Investments	→	Credibility	.26	.057	4.47	.000
Clarity	→	Credibility	.25	.059	4.16	.000
Credibility	→	WTP	.77	.092	8.37	.000

Figure 2: Structural results (standardized estimates)



Multi-group analysis

To investigate the difference between two types of service providers – new and older – the multi-group analysis in SEM was utilized. When being established in the market, brand signals play less important than newer brands (Kirmani and Rao 2000). Therefore, it is expected that the relationships among brand investments, signal consistency, clarity, and credibility are stronger for the new than for the older service providers.

The partial invariance method was used, i.e., invariance was applied only for regression weights between constructs investigated. The results show that differences were found in the two models ($\Delta\chi^2 = 16.37$, $\Delta df = 6$, $p = .01$). Consequently, the variant model (the model without any constraints) was selected. The regression weights of the two types of service providers (new and older) are shown in Table 2. It is also noted that no improper solutions were found in any results of the tests (Heywood cases were absent; all standardised residuals were less than $|2.58|$).

Table 2: Multigroup analysis results (unstandardized regression weights)

Paths	Newer service providers				Older service providers			
	estimate	std error	t-value	p-value	estimate	std error	t-value	p-value
Investments → Consistency	.54	.134	3.99	.000	.38	.072	5.34	.000
Consistency → Clarity	.29	.089	3.24	.001	.58	.101	5.71	.000
Investments → Clarity	.56	.142	3.97	.000	.14	.075	1.79	.073
Consistency → Credibility	.37	.069	5.35	.000	.64	.110	5.84	.000
Investments → Credibility	.43	.122	3.54	.000	.22	.065	3.38	.000
Clarity → Credibility	.25	.083	3.04	.002	.07	.090	0.77	.442
Credibility → WTP	.66	.104	6.39	.000	.69	.129	5.32	.000

Discussion and conclusions

Of particular interest of this study is to explore the role of marketing signals in the willingness to purchase a service by customers. The results of this study show that singal clarity and consistency play important roles in brand credibility, which is an important factor affecting the willingness to purchase the service by customers. The multigroup analysis reveals that differences were found between new and older service providers. For example, for the new service providers, brand investments play an important role in signal clarity ($\gamma = .56$, $p = .000$). However, this path is not significant for the older service providers ($\gamma = .56$, $p = .073$). The difference was also found for the relationship between signal clarity and brand credibility. For new service providers ($\beta = .25$, $p = .002$), the clarity of a brand signal is an important factor that drives customers to believe in the brand. However, when a service provider has established its brand name in the market, customers have more knowledge about the brand. Therefore, signal clarity may not be the case ($\beta = .07$, $p = .442$).

The results give an important implication to service marketers. When a market is characterized by information asymmetry, service providers should send their customers clear and consistent signals to make the brand credible. In so doing the firm should invest in the brand in order to be able to fulfill what is promised. This will benefit the firm in terms of profits and reputation (brand image) if it sends truthful signals. However, it is crucial to understand that a credible signal has a bonding component and the firm will incur a cost (loss of brand image) if the signal is false.

This study has several limitations. Firstly, it is the use of a student sample. Even though student samples, especially part-time students, have been accepted in research (James and Sonners 2001), a more representative sample is of interest in future research. Secondly, this study examines only one service, i.e., the mobile phone service. More services should be examined to capture a wider picture of the usefulness of signaling theory. Finally, the study examines marketing signals as a whole. Further research should address specific signals for services such as prices, advertising, and public relations.

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Appendix: The scale items (e.g., Vinaphone)

Brand investment

1. Vinaphone has spent a lot on the community over the years
2. Vinaphone is at the forefront of using technology to deliver better services
3. The name Vinaphone reminds me someone who pioneers in investing on his services

Signal clarity

4. Vinaphone provides very clear information on its services
5. Vinaphone provides sufficient information on its services
6. The name Vinaphone reminds me someone who gives me a clear picture of his services

Signal consistency

7. The image of Vinaphone in commercials has been consistent for many years
8. Everything is consistent about Vinaphone
9. What has been communicated by this brand is very consistent
10. The name Vinaphone reminds me someone who is consistent with his announcement

Signal credibility

11. I am totally believe in what Vinaphone's services communicated to customers
12. Vinaphone delivers what it promises
13. Vinaphone doesn't communicate what it is unable to fulfill
14. The name Vinaphone remind me someone who is fully believable

Willingness to purchase

15. When buying a mobile service, I immediately choose Vinaphone without any further consideration
16. Vinaphone is my first choice
17. Among mobile services available, I always choose Vinaphone