The Influence of Consumer-Based E-business Brand Equity on Websites

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Abstract: Brand Equity has caused more attention with the development of consumers' web shopping. This study explored the cause-and-effect between consumer-based E-business brand equity and websites outcomes, and it found that consumer-based E-business brand equity was the predecessor of websites outcomes. Based on literature review and in-depth interviews, a research model was developed. The model can be used to evaluate native E-business brand equity from both consumers' perspective and market perspective. The former was composed of five dimensions including loyalty, perceived quality, customer experience, trust and awareness, and a mechanism was formed to explain the relationship between them. The latter included click-through rate, stickness and revisiting rate. We appoint two websites to check it. In conclusion, The research provided a useful and practical model for further study on E-business brand equity.

Introduction

Brand equity has become the main subject of increasing research attention over the past two decades. There are three different perspectives evaluating an off-line brand, i.e. customer mind-set, product-market and financial market outcomes. These researches focus on the measures of brand equity, but seldom focus on the relationship among those 3 measures. Especially, it still remains blank in the research of online environment. This paper explores a model for evaluating E-business brand equity that is based on the relationship between consumer-based brand equity and web-market outcomes, and explains the most important structure of E-business brand equity.

Literature Review

Three Measures of Off-line Brand Equity

Consumer mind-set can be also called consumer-based measure. Its measures assess the awareness, attitudes, associations, attachments, and loyalties that customers have toward a brand and have been the focus of much academic research and industry offerings. These measures are rich in that they assess several sources of brand equity, have good diagnostic ability, and can be used to predict a brand's potential. However, because the measures are typically based on consumer surveys, they are not easy to compute and do not provide a single, simple, objective measure of brand performance.

Consumer-based Measures of Online Brands

Online brand equity researches can be seen as complementing traditional off-line brand equity. The off-line measures were discussed in details by Aaker and Keller. The recent scholars employed implicate their theories, and conducted different models in order to evaluate practical issues in online environment.

Online Researches Based on Aaker's Theory

Aaker defined brand equity as "a set of brand assets and liabilities linked to a brand, its name and symbol, that add to or subtract from the value provided by a product or service a firm and /or to that firm's customers. Aaker's "brand equity ten" is classified into five categories. The first four categories reflect customers evaluation of brand on the four dimensions of brand equity (loyalty, perceived

quality, associations and awareness), while the fifth category encompasses two market behavior measures for which information is not collected directly from consumers.

Online Researches Based on Keller's Theory

Keller defined customer-based brand equity as: the differential effect of brand knowledge on consumer response to the marketing of the brand. Brand knowledge is conceptualized as an "associative network memory model" consisting of two dimensions: brand awareness and brand associations in consumer memory. Positive customer-based brand equity occurs when the customer is aware of the brand and holds strong, unique and favorable brand association in memory.

Jin Liyin developed a research model that can be used to evaluate native web brand equity from a web contents' perspective .The whole brand equity is composed of five dimensions such as brand loyalty, perceived quality, brand relationship, brand experience and brand attraction. The results show that perceived quality, brand experience and brand attraction are important in driving brand relationship and brand loyalty.

E-Business Brand Equity Models

Based on both literature review and the depth interviews with experts (5 depth interviews with online branding experts and 30 university student s who do e-shopping frequently), the dimensions that were found to be the most appropriate for the purpose of evaluating customer-based E-business brand equity and web-market outcomes are shown in Figure 1. Moreover, we analyze the relationship between consumer-based brand equity and web-market outcomes

Relationship between Consumer-based Brand Equity and Web-market Outcomes

E-business brand equity can be measured by consumer-based brand equity or web-market outcomes. Usually, researchers look them as two independent measures to evaluate brand equity. But we find that there is consequence between them. Consumer-based brand equity is the antecedent of market outcomes. E-business brand equity is a chainlike structure. It starts from consumer-based brand equity, and the accumulative value will lead to increasing web-market outcomes

We define consumer-based E-business brand equity as the differential effect of brand knowledge of E-tail on consumer response to the marketing of the E-business brand; web-market outcomes is defined as the marketing effects or outcomes that accrue to a web with its well-known brand name compared with those that would accrue if the same web has unknown brand name.

To E-business brand equity, consumer-based brand equity as a source of E-business brand equity will bring the effect of market outcomes′ increase/reduction. The actual E-business brand equity must be based on consumers' awareness, association, trust and loyalty. Only consumers' positive behavior can produce market outcomes.
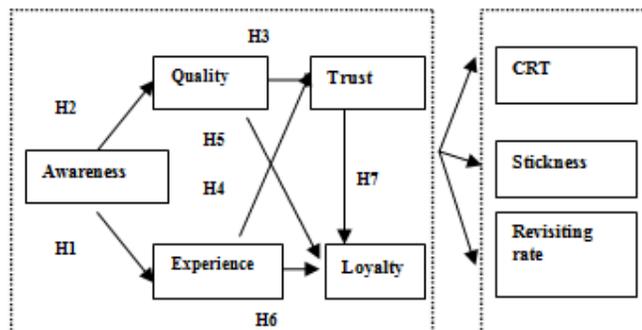

Figure 1. Relationship between consumer-based E-business brand equity and web-market outcomes.

Five dimensions are found to be the most appropriate for the purpose of evaluating online E-business brand equity. They are awareness, perceived quality, experience, trust and loyalty. Web-market outcomes includes click-through rate, stickness, revisiting rate and real payment.

Consumer-based E-business Brand Equity

Awareness(AW) is the extension that a brand is known by customers. An E-commerce's awareness is more important than an off-line's merchant. Customers still have great chance of bumping into some unknown off-line shops, but they have less opportunities of E-business. It is a reason why some unknown E-tails would like to link their home pages with some well-known webs. Awareness can be a compass that can show the direction.

Association reflects the salience of the brand in the customers mind. There are two levels of association of E-tail web, which include: quality and experience.

Quality(QU) is customers' subjective total attitudes toward a certain retail website, which is perceived quality. It has always been an important dimension measurement E-commerce brand equity. Perceived quality is the core construct in the Total Research approach to measuring off-line brand equity. When it comes to E-tail service provider's equity, quality can be examined by both websites' service quality and commodities' quality they provide. The former requires more technical support from web owners, and the latter largely depends on individual commodity supplier. So the quality of E-tail relies on more than one business units. Any part will improve or destroy the association related to quality.

Experience (EX) is a feeling that encompasses all points of interaction between the customers and the brand in the virtual space. No matter what the website provides, website characteristics, commodities or service, experience are always unavoidable components during customers' whole retail process. Customers can obtain fun, excitement, curiosity, adventure and etc. from online shopping. To a valuable E-tail, making its every customer happy during a virtual retail process is very important. Experience is affective in this study.

Trust (TR) is defined as the degree of confidence customers have in online exchanges, or in the online exchange channel. Electronic exchanges are believed to present numerous risks to customers, while trust appears to be especially important for creating loyalty when the perceived level of risk is high. E-tails are considered risky, since customers lack direct contact with the company, and have to hand oversensitive information. Online retail websites have the duty of providing their customers the best merchandise, and the safest channel to exchange. Trust is extremely important for increasing customers′ loyalty towards brands on the web.

Customer loyalty (CL) to E-tail website is defined as the customer's favorable attitude toward a certain E-tail provider, resulting in repeat purchasing/visiting behavior. Preference and favorable attitudes presume customer satisfaction, which is generally considered as a major driver of loyalty in online shopping. Retail web is more like a community than an exchanging spot. People having similar hobbies and interests gather together, trade information, make friends. The special online, communal relationship is not to sell products only, but to use it wisely in order to build solid platform to generate substantial word-of-mouth, leading to high levels of web awareness.

Consumers visit because they expect or know they can get certain service/products and they are sure they will be well satisfied. Hence, the awareness positively strengthens customers' experience, which brings out the first hypothesis of the study: H1. Awareness does positively effect on experience.

Perceived quality is customer judgment to the product and service of E-tail. It can result in customers' positive attitudes towards E-tail that is partly formed by awareness. Many evidences have shown how it works in off-line and online brand equity, but no research is on E-tail brand equity. Unlike a single business brand, a E-tail web is affected by multifarious merchandise's brands and its own brand, and customers' judgment to perceived quality could be positively changed by increasing their recognition of any part of web. The hypothesis stating this is: H2. Awareness can directly affect quality.

Although empirical research in this domain is scare, and association's dual-level, quality and experience, form different levels of trust and loyalty in terms of E-tail environment, a positive effect of customer association on trust and loyalty has been demonstrated for single online brand. The corresponding hypothesises tested are:

H3. quality directly and positively affects trust; H4. experience directly and positively affects trust.

H5. quality directly and positively affects loyalty; H6. experience directly and positively affects loyalty.

It has been proved with many empirical researches on off-line brands. As we mentioned before, customers perceive different risks in cyber-space. So customers' trust on an E-tail web must be different from it in traditional background. Loyalty is always customers' favorable attitudes no matter what condition it is in, and it is influenced by customers' previous experience. As the positive mental reaction to customers' past e-activities, trust will influence the extent of loyalty. This allows us to arrive at the final hypothesis of this study: H7. Trust directly and positively affects loyalty.

Methodology

Overview

In order to investigate these hypotheses, we selected two E-tails (dangdang.com and joyo.com). As most university students have had the opportunity and experience of purchasing from such web sites, students, the data from university students' survey is representative. The information necessary to carry out the empirical study was collected in data sample through face-to-face to undergraduates in Dalian university. A total of 205 respondents were investigated, 151 of the respondents (73.6 percent) resulted in valid surveys. There were 80 men (53percent) and 71 women (47 percent) in the sample. Given Anderson and Gerbing's recommendation of a minimum sample size of 150 when testing a structural model via SPSS or LISREL, sample size of 151 appears to be adequate.

Results

The empirical validation of the structure was performed by exploratory and confirmatory factor analysis as well as reliability analysis, following the guidelines of Churchill. Next, the extracted dimensions were tested for their reliability, average variance extracted (AVE) and Cronbach′s α were employed to evaluate each dimension. The details of Confirmatory Factor Analysis are shown in Table 1.

Table 1. Confirmatory factor analysis.

Var	Item	Factor (CFA)	reliability	α
AW	Fame	0.48	0.23	0.7303
	Recognition	0.52	0.28	
	Identification	0.77	0.59	
	Quick recall	0.64	0.41	
QU	Confidence	0.41	0.17	0.6889
	Stability and reliability	0.54	0.29	
	Superb	0.57	0.32	
	Total quality	0.57	0.32	
EX	Exciting and fascinating	0.59	0.34	0.6695
	Fun	0.62	0.39	
	Enjoyable	0.56	0.31	
	Personalized	0.56	0.31	
TR	trust.	0.55	0.31	0.7204
	brand Confidence	0.58	0.33	
	Safe	0.75	0.56	
	Trustworthiness	0.61	0.37	
CL	Unconditional loyal	0.59	0.35	0.6908
	Recommendation to	0.69	0.46	
	friends Loyalty to the	0.71	0.51	
	E-tail brand			

The corresponding measures suggest a good fit of the extracted five dimensions of the E-tail brand scale that are defined as: awareness, quality, experience, trust, loyal. Table2 explains descriptive and correlation between main constructs, square roots of average variance extracted.

Table 2. Descriptive and correlation.

	AW	EX	QU	TR	CL
AW	**0.90**				
EX	0.34	**0.92**			
QU	0.24	0.58	**0.91**		
TR	0.32	0.43	0.44	**0.89**	
CL	0.36	0.54	0.66	0.55	**0.98**

Conclusions

The research explores the cause-and-effect between consumer-based E-business brand equity and web-market outcomes, and it is found that consumer-based E-business brand equity is the antecedent of web-market outcomes. Five dimensions are used to evaluate consumer-based E-business brand equity. They are awareness, perceived quality, experience, trust and loyalty. Three dimensions are applied to measure web-market outcomes. They are click-through rate, stickness, revisiting rate. The research provides a useful and practical mode for further study on E-business brand equity.

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