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Factors Affecting Brand Equity of E-Commerce Platforms in Vietnam Southeastern Provinces

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Abstract

The Vietnamese market is a fierce competition of e-commerce platforms, so it is extremely urgent to develop brand equity for sustainable competition. As the most dynamic economic region in Vietnam, the situation in the Southeast provinces is similar. This study collected responses from 150 people to examine and test the factors affecting the brand equity of Vietnamese e-commerce platforms. Survey data on factors affecting brand equity were tested by multivariable linear regression on SPSS software. The results show that: brand awareness, brand association, perceived quality and loyalty are the four factors that positively affect brand equity. From the above results, the study makes recommendations on advertising activities, product improvement and building a loyal customer base to help businesses develop brand equity.

1. Introduction

E-commerce is defined as the conduct of buying and selling activities of goods or services through the support of the Internet and other electronic means (A. Mitra, 2013) [15]. The advent of e-commerce has contributed significantly to the development of the global retail industry. According to Statista statistics, e-commerce sites in the world are attracting 22 billion visits per month and sales have reached 3.53 trillion USD (Statista, 2021) [19]. In the future, the transaction volume on e-commerce sites is forecasted to continue to grow strongly.

Not out of the trend of the world and Vietnam, the e-commerce market in Vietnam southeastern provinces has also made great progress in recent years. According to the Vietnam E-commerce Association, with an average growth rate of 20% per year, the size of Vietnam southeastern provinces' e-commerce market in 2020 has exceeded 10 billion USD, increasing 3 times compared to 2015 (according to Vietnam E-Business Index 2020) [21]. Not only that, the number of people participating in shopping on e-commerce sites has reached 26.7 million, accounting for about 20% of the population (Duong, 2020) [4]. Acting as a potential market, Vietnam southeastern provinces is witnessing fierce competition for market share between the four major e-commerce platforms, Shopee, Lazada, Tiki and Sendo, in which Shopee is winning with 62 million visits per month (Iprice, 2021) [6].

In this fierce race, besides competing on price, improving technology platforms and services, e-commerce floors also need to focus on building brand equity to create a long-term competitive advantage over competitors. If exploited effectively, brand equity will be a powerful competitive weapon to help businesses win. Previous studies have shown that brand equity has a positive effect on customer purchase intention (Jalilvand *et al.*, 2011) [14] and customer satisfaction (Tanveer & Lodhi, 2016) [23]. Researchers have also shown that customers are willing to pay more for a strong brand (Bougenvile & Ruswanti, 2017) [1]. Therefore, determining the factors that create brand equity is extremely necessary, from which businesses can build a strong brand and gain an advantage in business. In the field of e-commerce in Vietnam southeastern provinces, there is currently no research on this issue, so the study will focus on clarifying the following questions:

- What factors affect the brand equity of e-commerce platforms?
- How influential are these factors?

The next part of the study will focus on clarifying the theoretical basis, research methods, research results and discussion. On that basis, this study will also propose some solutions to contribute to building brand equity for Vietnamese e-commerce floors.

2. Theoretical foundations and research methods

2.1 Brand

The American Marketing Association's definition of a brand says that a brand consists of a name, design, symbol, or combination of these signs, intended to distinguish the goods of the enterprise from those of competitors. However, with this approach, the brand concept can be confused with the logo concept (Maurya & Mishra, 2012) [20]. From the customer's perspective, Davis believes that a brand is a set of expectations and associations when a customer experiences a product or business (Davis, 2002) [17]. Thus, the concept of a brand includes not only intuitive signs such as images and symbols, but also intangible elements such as feelings and impressions in the minds of customers (Maurya & Mishra, 2012) [20]. Therefore, the concept of a brand should be understood comprehensively as one or a set of signs to identify and distinguish goods, and also an image in the minds of customers.

2.2 Brand equity and its components

Brand equity is a concept with no unified definition. According to the financial perspective, brand equity is the profit difference between the branded product and the unbranded product (Farjam & Hongyi, 2015) [18]. Meanwhile, researchers with a customer-oriented approach to brand equity argue that the value of a brand exists only in the mind of the customer. The meaning of the brand does not lie in the name but it is the result of the customer's product experience process (Keller, 2003) [11]. Accordingly, Keller defines brand equity as the influence of brand awareness on consumer response to corporate marketing stimuli (Keller, 1993) [12]. According to Aaker, brand equity is the set of intangible assets associated with a brand that have the ability to increase or decrease the value of the product (Aaker, 1991) [3]. Aaker also proposed a model to measure brand equity based on customer orientation including 4 factors: brand awareness, brand association, perceived quality and brand loyalty. These are the 4 factors that create value for a brand and are the foundation for bringing financial benefits to the business (Aaker, 1991) [3]. This study will approach brand equity based on customer orientation and use Aaker's model because it is the most widely used model by scholars around the world when learning about brand equity. (Atilgan & Aksoy, 2005) [10], (Fayrene & Lee, 2011).

2.2.1 Brand Awareness

Brand awareness is the power of a brand's presence in the minds of customers (Keller, 1993) [12]. According to Aaker, this is the customer's ability to recognize and remember the brand (Aaker, 1991) [3]. Customers form brand awareness through corporate communication activities. Brand awareness contributes to shortening the decision-making process to use a certain product because it shows the prestige of the product, while reducing perceived risk for customers (Sasmita & Suki, 2015) [9]. Customers tend to choose the company's products when they remember that brand in the decision-making process (Jalilvand *et al*., 2011) [14]. Therefore, this study proposes the following hypothesis.

H1: Brand awareness has a positive effect on corporate brand equity.

2.2.2 Brand Association

Brand association is all that is related to the brand in the mind of the customer (Aaker, 1991) [3]. Brand association is the customer's recollection of brand features. The true value behind each brand name is the meanings (associations) associated with that name. Aaker suggests that through positive associations of brand meaning, consumers will have more reasons to buy products (Aaker, 1991) [3]. The study by Pouromid and Iranzadeh, confirmed this result (Pouromid & Iranzaded, 2012) [16]. Therefore, this study proposes the following hypothesis:

H2: Brand association has a positive effect on the brand equity of enterprises.

2.2.3 Perceived Quality

Perceived quality is the subjective assessment of consumers through their perception of the product (Aaker, 1991) [3]. It should be noted that perceived quality is not the actual quality of the product because the customer does not have enough information about the product attribute to evaluate. Instead, products are evaluated based on customer experiences and ability to meet customer needs (Ngo *et al*., 2014) [5]. A brand with a high perceived quality will be chosen by customers more than the competition. Many previous studies have shown a positive association between perceived quality and brand equity (Aaker, 1991) [3], (Ngo *et al*., 2014) [5], (Yoo *et al*., 2000) [2]. Therefore, this study proposes the following hypothesis:

H3: Brand perceived quality has a positive impact on the brand equity of the business.

2.2.4 Brand Loyalty

Aaker defines brand loyalty as reflected in the extent to which consumers will choose another supplier's products, especially when the business has changes in price or product (Aaker, 1991) [3]. Loyalty to a brand can be expressed through consumer behavior or attitudes. From a behavioral perspective, it is the continued purchase of a company's products in the future despite competitors' marketing efforts. In terms of attitude, brand loyalty can be expressed through consumers' sympathetic attitude and intention to make a long-term commitment to the business (Ngo *et al*., 2014) [5]. Brand loyalty has a huge influence on profitability and is an important part of brand equity (Aaker, 1991) [3], (Yoo *et al*., 2000) [2]. Therefore, this study proposes the following hypothesis:

H4: Brand loyalty has a positive effect on the brand equity of enterprises.

From the above hypotheses, the research model is proposed as follows (Fig 1):
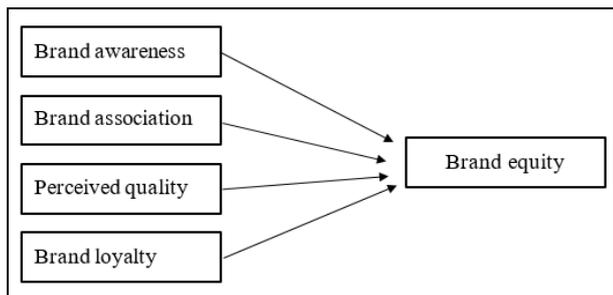
Source: Proposed by authors

Fig 1: Proposed research model (Aaker, 1991)

2.3 Research methods
The data collection tool is a questionnaire using a 5-point Likert scale with levels from (1) Strongly disagree to (5) Strongly agree. The observed variables are simulated according to previous studies on brand equity (Yoo *et al.*, 2000) [2], (Wang & Li, 2012) [22]. The questions were adjusted to suit the context of e-commerce in Vietnam southeastern provinces and the final questionnaire consisted of 15 observed variables including: Brand awareness (3 variables), brand association (3 variables), perceived quality (3 variables), brand loyalty (3 variables) and brand equity (3 variables).

The sample was selected according to the convenience method, mainly customers who regularly use e-commerce websites in Ho Chi Minh city. Customers' perception of the elements constituting brand equity will be surveyed based on the e-commerce site they use most often. The minimum number of samples needs to be 5 times more than the number of observed variables (Hair *et al.*, 2013) [7]. Thus, the minimum sample size of the study is 15 x 5 = 75. However, to ensure reliability, the survey was sent to 172 customers and 150 valid responses were obtained.

Survey data will be analyzed in 5 steps. First, general descriptive statistics will be conducted to generalize the characteristics of the research sample. The statistical criteria described in this study include gender, age, occupation, income and commonly used e-commerce sites. Second, Cronbach's Alpha test will be conducted to check the reliability of the scale. Through that, the research can keep the reliable observed variables and remove the inappropriate ones. Third, exploratory factor analysis (EFA) will be used to reduce the observed variables into a more meaningful set of factors. EFA analysis will show whether the actual number of factors is in agreement with the theory or not. Fourth, the Pearson correlation coefficient test was performed to check the linear relationship between the independent and dependent variables before entering the regression. Finally, multivariable linear regression analysis was used to determine the influence of the independent variables on the dependent variable, thereby helping to test the research hypotheses.

3. Research results and discussion
3.1 Descriptive statistics
The results of sample descriptive statistics (Table 1) show that women are more users of e-commerce sites than men (58% versus 42%). Most of the customers of e-commerce sites are young people from 18-25 years old, are students,

students or office workers with average income (about 10 million VND). The two most popular e-commerce sites with this target group are Shopee and Tiki.

Table 1: Sample descriptive statistics

	Quantity	Ratio
Gender		
Male	63	42%
Female	87	58%
Age		
Under 18	18	12%
18-25	61	41%
26-35	32	21%
36-45	21	14
Over 45	18	12
Occupation		
Student	53	35
Officer	58	39
Self-employed	19	13
Freelancer	11	7
Others	9	6
Income		
Less than 5 million VND	50	33
From 5 million - 10 million VND	59	39
From 10 million - 20 million VND	21	14
More than 20 million VND	20	14
E-commerce website frequently used		
Shopee	59	39
Tiki	52	35
Lazada	19	12
Sen Do	13	9
Others	7	5

Source: Compiled by authors

3.2 Check the scale
Table 2 shows that the scale is reliable with Cronbach's Alpha value greater than 0.7. All variables in the scale have a total correlation coefficient greater than 0.3, showing that the model's scale is reliable.

Table 2: Evaluation of scale reliability

Factors	Cronbach's Alpha
Brand awareness	0,948
Brand association	0,939
Perceived quality	0,918
Brand Loyalty	0,937
Brand Equity	0,931

Source: Compiled by authors

Table 3 presents the results of EFA exploratory factor analysis and shows that all variables have eigenvalues greater than 1; KMO reached 0.841 (KMO > 0.4), Bartlett test gave the result 2408,362 with the significance level less than 0.05, the sum of extracted variances of 4 variables is greater than 50%. Therefore, the scale with 15 observed variables is reliable and suitable for the following tests.

Table 3: KMO–Barlett test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0,841
Bartlett's Test of Sphericity	Approx. Chi-Square	2408,362
	df	66
	Sig.	0,000

Source: Compiled by authors

Table 4 presents the results after using the rotation matrix, 12 observed variables were actually divided into 4 groups

corresponding to 4 independent variables in the hypothesis

Table 4: Exploratory factor analysis

	1	2	3	4
NT1	0,933			
NT2	0,936			
NT3	0,936			
LT1		0,896		
LT2		0,919		
LT3		0,904		
CL1			0,907	
CL2			0,911	
CL3			0,935	
TT1				0,813
TT2				0,876
TT3				0,862

Source: Compiled by authors

3.3 Testing the research hypothesis

Before using multivariable regression to test the research hypothesis, the Pearson correlation test was conducted. The results show that 4 variables of brand awareness, brand association, perceived quality and brand loyalty are positively correlated with the brand equity variable (Table 5).

Table 5: Pearson correlation test

	NT	LT	CL	TT
Pearson correlation test	0,654	0,702	0,330	0,762
Significance level	0.000	0.000	0.000	0.000

Source: Compiled by authors

Table 6: Multivariate regression test

Independent variables	Normalized Beta coefficient	t	Significance level	VIF
Brand awareness	0,264	5,076	0,000	1,497
Brand association	0,328	6,022	0,000	1,648
Perceived quality	0,122	2,753	0,007	1,096
Brand loyalty	0,388	6,663	0,000	1,885
R^2	0,739			
Normalized R^2	0,732			
F	102,574			
Significance level	0,000			

Source: Compiled by authors

Regression test results (Table 6) show that the proposed model with 4 independent variables is able to explain 73.2% of the variation of the dependent variable brand equity. The model is evaluated as fit for F = 102,574 (sig = 0.000). VIF variance magnification factor less than 10 shows no multicollinearity between variables (Pallant., 2016).

The independent variables that affect brand equity at 5% significance level are brand awareness, brand association, perceived quality and brand loyalty. In which, brand loyalty has the strongest impact on brand equity (Beta = 0.388). Then there are brand association (Beta = 0.328), brand awareness (Beta = 0.264) and perceived quality (Beta = 0.122). Thus, all four hypotheses are accepted. Thus, the above research results are completely consistent with Aaker's theoretical model.

From the above results, we can draw some conclusions as follows:

Firstly, brand awareness has a positive effect on brand equity. Since customers tend to weigh in on brands they are likely to remember in their purchasing decision process, the brand with a higher level of awareness is more likely to be selected. Moreover, brand awareness also reflects the reputation of the business and reduces the perceived risk level of customers. Therefore, it can be asserted that brand awareness contributes to brand equity.

Secondly, brand associations contribute positively to brand equity. Brand associations represent the true meaning of a brand in the minds of consumers. The customer's association with the good features of the brand will create feelings for that brand. On that basis, customers will have more reasons to choose your products over other competitors.

Thirdly, perceived quality of products has a positive impact on brand equity. Perceived quality is formed through the process of customer experience with the product. A product that meets the needs of customers well will be the basis of brand evaluation and the basis for subsequent purchases. Therefore, brand equity should be developed on the basis of high-quality products.

Fourthly, loyalty is an important factor that has the strongest influence on the brand equity of a business. Loyal customers often have a favorable attitude towards the brand. Not only that, but they also continue to use the products and services that the business provides, thereby affecting the long-term profits of the business and contributing to the growth of brand equity.

4. Conclusion

From the above research results, it can be seen that building brand equity for e-commerce platforms should be based on four main pillars: developing brand awareness, brand association, perceived quality and loyalty.

To increase brand awareness, businesses need to promote their image to a large number of customers through mass media. Advertising messages also need to highlight the outstanding characteristics of the business compared to competitors to create positive associations about the brand in the minds of customers. During the communication process, e-commerce platforms can associate with famous people as brand ambassadors to create beautiful images to win the hearts of consumers. In addition, businesses need to constantly improve services to improve the perceived quality of customers. Specifically in the e-commerce market, businesses need to build user-friendly interfaces; speed up, accuracy and guarantee in the delivery process; improve customer service quality and handle arising complaints well. Finally, e-commerce sites should focus on promoting loyalty programs or membership programs to promote long-term purchasing behavior. This will be an important foundation for building a loyal customer community, contributing to creating a sustainable competitive advantage and helping to increase brand equity.

5. References

1. Bougenvile, Ruswanti E. Brand equity on purchase intention consumers' willingness to pay premium price juice, Journal of Economics and Finance. 2017; 8(1):12-18.
2. Yoo B, Donthu N, Lee S. An Examination of Selected Marketing Mix Elements and Brand Equity, Journal of the Academy of Marketing Science. 2000; 28(2):195-211.
3. Aaker DA. Managing Brand Equity. The Free Press, New York, 1991.
4. Duong HN. E-commerce in economic development in

Vietnam, (in Vietnamese), Review of Finance. 2020; 2(7):27-31.

5. Ngo HNT, Nguyen BV, Dinh MT. Components of brand equity: The case of Binh Thuan dragon fruit," (in Vietnamese), Journal of Economic Development. 2014; 285:61-82.

6. Iprice. Vietnam's E-commerce map, (in Vietnamese), Iprice Group. [Online]. Available: https://iprice.vn/insights/mapofecommerce/. [Accessed Jan. 29th, 2021].

7. Hair JF, Black WC, Babin BJ, Anderson RE. Multivariate data analysis: Pearson new international edition, 7th edition, Pearson Higher Ed, 2013.

8. Pallant J. SPSS survival manual: A step by step guide to data analysis using IBM SPSS, 6th edition, Open University Press, England, 2016.

9. Sasmita J, Suki NM. Young consumers' insights on brand equity, International Journal of Retail & Distribution Management. 2015; 43(3):276-292.

10. Atilgan E, Aksoy S, Akinci S. Determinants of the brand equity, Marketing Intelligence & Planning. 2005; 23(3):237-248.

11. Keller KL. Strategic Brand Management: Building, Measuring and Managing Brand Equity, 2nd ed., Prentice-Hall, Englewood Cliffs, NJ, 2003.

12. Keller KL. Conceptualizing, Measuring, and Managing Customer-Based Brand Equity, Journal of Marketing. 1993; 51(1):1-22.

13. Wood L. Brands and brand equity: Definition and management, Management Decision. 2000; 38(9):662-669.

14. Jalilvand MR, Samiei N, Mahdavinia SH. The effect of brand equity components on purchase intention: An application of Aaker's model in the automobile industry, International business and management. 2011; 2(2):149-158.

15. Mitra. E-Commerce in India: A review, International Journal of Marketing, Financial Services & Management Research. 2013; 2(2):126-132.

16. Pouromid, Iranzadeh S. The evaluation of the factors affects on the brand equity of Pars Khazar household appliances based on the vision of female consumer, Middle-East Journal of Scientific Research. 2012; 12(8):1050-1055.

17. Davis S. Implementing your BAM strategy: 11 steps to making your brand a more valuable business asset, Journal of Consumer Marketing. 2002; 19(6):503-513.

18. Farjam S, Hongyi X. Reviewing the concept of brand equity and evaluating consumer-based brand equity (CBBE) models, International Journal of Management Science and Business Administration. 2015; 1(8):14-29.

19. Statista. E-commerce worldwide: Statistics & facts, Statista Research Department. [Online]. Available: https://www.statista.com/topics/871/online-shopping/. [Accessed Jan. 29th, 2021].

20. Maurya UK, Mishra P. What is a brand? A Perspective on Brand Meaning, European Journal of Business and Management. 2012; 4(3):122-133.

21. Vietnam E-commerce Association, Vietnam E-Business Index, 2020 [Online]. Available: https://vecom.vn/bao-cao-chi-so-thuong-mai-dien-tu-viet-nam-2020. [Accessed Jan. 29th, 2021]

22. Wang W, Li H. Factors influencing mobile services adoption: A brand-equity perspective, Internet Research. 2012; 22(2):142-179.

23. Tanveer Z, Lodhi RN. The effect of brand equity on customer satisfaction: An empirical study based on David Aaker's Brand Equity Model, IUP Journal of Brand Management. 2016; 13(3):43-54.