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The Impact of Brand Equity on Consumer Intention: A Case Study for COVID-19 Vaccine Products in Vietnam

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Abstract

Maintaining and expanding brand equity is regarded as an essential component of brand development. Effective management of brand equity leads to more opportunities for brand extension and the ability to draw in more customers. Brand equity, in particular, has a positive impact on consumer purchase intention. The purpose of this study is to look into the relationships between brand equity and consumption intention from the perspective of Vietnamese customers of India's COVID-19 vaccine products. Primary data is aggregated from 475 Vietnamese citizens with different occupations and backgrounds 18 years of age or older. The findings of the study show that consumption intention is positively inspired by brand equity, including brand association and brand quality. If consumers perceive high brand equity, it will have a higher impact on promoting consumption intention to the brand. India's COVID-19 vaccine needs to invest more in building brand equity in the Vietnamese market if it wants to increase the consumption choices of Vietnamese people. To create a good brand association and brand quality for India's COVID-19 vaccine, it is necessary to focus on communicating the good properties of the Indian-made vaccine such as safe, high protective effect, high immunity and protection, and long duration of immunity of vaccines.

Keywords: Brand Equity, Brand Association, Brand Quality, Consumption Intention, COVID-19 Vaccine

JEL Classification Code: B17, M16, M21, M31, M37

1. Introduction

Over the past two years, the pandemic waves of COVID-19 have caused the death of over 5 million people worldwide along with significant economic and societal damages (Mathieu, 2022). Many pharmaceutical companies have entered the "race" to research and produce vaccines against COVID-19 due to the devastating effects of the pandemic. Foreign brand names are emerging and covering the domestic market more than ever as global trade is being increased. COVID-19 vaccine products are no exception. In Vietnam, 8 vaccines from various brands have been approved and put into use as of September 10, 2021 (COVID-19 Vaccine Tracker Team, 2022). Until now, the COVID-19 outbreak has been contained, and the number of cases has been reduced due to the widespread vaccination and health-prevention measures such as wearing masks and sanitization, etc. However, the vaccine's role and function will continue to be critical in the future. So, as a medical product, if the vaccine is marketed, it will create a massive consuming

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market in Vietnam and all around the world. With the presence of more and more brands, consumers are constantly making decisions based on judgments about the quality and popularity of the brand, including the logo or slogan. These elements are referred to as brand equity. Building brand equity is a crucial aspect of brand development (Pappu et al., 2005). According to (Panchal et al., 2012), branding is an essential tool in the health industry and plays a significant influence on the success of pharmaceutical enterprises.

ZyCoV-D, the world's first COVID-19 DNA vaccine (The Times of India, 2021), as well as the Covaxin vaccine, which the Vietnamese Ministry of Health has provisionally approved for use in COVID-19 pandemic prevention, has now received licensing in India. India has a long history of making significant advances in fields such as science, technology, mathematics, medicine, etc. This has an influence on Indian companies' brand image, particularly as the country is producing and implementing a COVID-19 vaccine of its own. As a result, assessing the impact of brand equity on consumption intentions in India's COVID-19 vaccine becomes more crucial than ever. This research will point out the relationships between brand equity, brand associations, brand quality, and consumption intention on India's COVID-19 vaccine product in Vietnam. Vietnam, with the third-largest population in Southeast Asia, and ranked 15th in the world, is a very large vaccine consumption market, very attractive for many brands of COVID-19 vaccine production, when this vaccine is circulated and widely consumed like other popular vaccines on the market.

2. Literature Review

2.1. Consumption Intention

The intention to consume relates to the consumer's attitude toward a certain purchasing behavior as well as the consumer's readiness to pay (John & Jagdish, 1969). Forecast buyer behavior is essential because external circumstances, evaluation, and a buyer's point of view will affect a buyer's purchase intention (Fishbein & Ajzen, 1975). Consumer purchase intention was positively influenced by brand equity (Aaker, 1991, 1996). Many empirical findings helped support this specification (Ashill & Sinha, 2000; Chang & Liu, 2009). Also, a study on vaccination intentions after a major vaccine scandal discovered a connection between functional vaccine literacy and vaccination-related outcomes. Following a considerable vaccination controversy, increased literacy may help mitigate some of the potentially harmful repercussions of being exposed to contradicting information, which may otherwise lead to vaccine hesitation or refusal (Wang et al., 2018). Additionally, rational appeal messages raised vaccine risk perceptions more so than emotional appeal messages. As a result, rational statements

can be used in a new vaccination promotion campaign to lessen the detrimental impact of vaccine risk perception on vaccination intention (Gursoy et al., 2022). According to a study, a surprisingly significant percentage of people in the Americas and Europe refuse to consume the COVID-19 vaccination manufactured by specific brands in specific nations. In contrast, the Southeast Asian and African regions expressed less concern about this. Because brand equity is one of a company's most valuable assets, marketers must generate messages that educate customers that their products or services are valuable and that convince or influence customers to buy a specific product at a specific time and in the future. As a result, this study aims to explore the role of brand equity in affecting the consumption intentions of Vietnamese users of the ZyCoV-D vaccine.

2.2. Brand Equity

Brand equity is classified into two categories: financial and customer-based (Keller, 1993; Chaudhuri, 1995). The value that brands add to financial assets is known as brand equity (Bailey & Ball, 2006; Lassar et al., 1995). Meanwhile, Keller (1993) proposed the customer-based perspective, which is also the focus of this study, based on the consumers' assessments of a brand name (Belén del Río et al., 2001). Brand equity, as defined by Chaudhuri (1995), is the value that a particular brand name adds to a good or service, such as customer-based brand equity. With a clearer definition of brand equity as the "differential effect of brand knowledge on consumer response to brand marketing", Keller's (1993) study takes a more direct approach to consumer behavior. Consumer behavior can also be viewed as a source of brand equity. As the operational definition of brand equity in this study, the central feature of these definitions of brand equity is the elevated customer attractiveness that a brand name confers on a product or service. Cobb-Walgreen et al. (1995), found that brand equity influences brand preference and purchase intention in both direct and indirect manners, eventually influencing customers' choice of brands. Also, according to other studies (Myers, 2003; Prasad & Dev, 2000; De Chernatony et al., 2004), high equity correlates to high brand preference and loyalty. Because brand equity is represented in brand preference, it is reasonable to assume that brand preference is mirrored in the purchase or consumption intention (Chang & Liu, 2009). Brand equity consists of five dimensions, according to Aaker (1991, 1996), including brand loyalty, brand association, brand awareness, perceived brand quality, and additional proprietary brand assets. Lassar et al. (1995) modified Martin and Brown (1991) definition of brand equity to include performance-giving, perceived value, image, trustworthiness, and a sense of commitment. It is evident from a comparison of various definitions of brand equity that they share characteristics like brand association,

brand awareness, brand loyalty, and perceived quality. As a result, in this study, the two components of brand equity are brand association and brand quality proposed research. In this Research, two-section brand association and perceived brand quality were used to measure perceived brand equity for Indian-made vaccines.

2.3. Brand Association

Brand association is defined as anything linked in memory to a brand of customers. A brand association has a level of strength, and the connection to a brand from the association is stronger when it is built on multiple experiences or communications exposures and when it is backed by a network of other relationships (Aaker, 1991). The product's features may be reflected in brand associations. Furthermore, according to Aaker (1991, 1996), brand associations can bring value to customers by giving them a reason to buy the brand and thereby promoting good attitudes and feelings among consumers. Brand associations, according to Del Rio et al. (2001), are a critical component in the establishment and management of brand equity. In this sense, great brand equity denotes that people have strong positive feelings about the brand. Primary brand association is also proven to have an impact on ultimate purchase intention (O'Cass & Lim, 2002). Research by Jang et al. (2018) also showed that brand attitude and purchase intention are positively impacted by brand image. Brand associations are the foundation for purchasing decisions, as well as a source of value for both the company and its customers. Thus, the hypotheses are formed:

H1: The brand association has a positive impact on perceived brand quality.

H2: The brand association has a positive impact on consumption intention.

2.4. Brand Quality

Another essential aspect of brand equity is perceived brand quality. It's a competitive requirement, and many businesses have turned customer-driven quality into a strategic weapon. Customers are satisfied and valued because they consistently and profitably meet their demands and preferences for excellence. According to Kotler (2000), there is a direct link between product and service quality, customer happiness, and firm profitability. Consumers gain value from quality since it gives them a reason to buy and distinguishes the brand from competitors. According to Zeithaml (1988), consumers' opinions and assessments of the general quality and standout benefits of a brand's product or service are referred to as perceived brand quality. It was emphasized that perceived brand quality is an act subjective to the consumer. The term

“perceived” refers to the consumer's subjective assessment of a product rather than its real quality. This action directly influences consumers' desire to make a purchase. Research by Phan et al. (2019) indicated that perceived brand quality statistically impacts purchase willingness. In general, the better a customer's perception of a brand's quality and attributes, such as its dependability and performance, the more favorable an effect it will have on their desire to purchase. Therefore, the proposed hypothesis is:

H3: Perceived brand quality has a positive impact on consumption intention.

3. Methodology

3.1. Measurement Scales and Measurement Instrument

The set of scales for brand association designed by Aaker (1991, 1996), consists of four measurement criteria: good sympathy, good attributes, trust, and positive attitude toward the product. The brand quality scale was adapted by Zeithaml (1988), World Health Organization (2021), and Khan (2021), this scale includes safe, high protective effect, high immunity and protection, and long duration of immunity. Finally, the consumption intention scale was based on Wang et al. (2012) and Asshidin et al. (2016), including highly likely to choose, priority to choose, and choosing the brand. To help in the assessment or evaluation of subjects, researchers and practitioners use measurement instruments. The tools are used to measure or collect information on various variables. Scales, indices, questionnaires, surveys, interviews, and observations are examples of measurement instruments. To obtain data from a wide number of participants with representative views (Walker, 1996), the questionnaire was used as the measurement instrument in this paper. It consisted of 20 multiple-choice questions and 28 items measured by a five-point Likert scale. The data was collected via Google Forms for convenience during the COVID-19 pandemic in the year 2022. Google Form is also proven to allow researchers to have real-time visualizations of the data collected (Hsu & Wang 2017). The participants had access to the online questionnaire through the invitation on social media platforms from December 1st, 2021, to January 16th, 2022. The advantage of doing an online survey is that it gives researchers access to participants who might be reluctant to interact in person (Wright, 2006).

3.2. Participants and Procedure

Among the total of 489 people who took part in the questionnaire, 475 survey results came into analysis, since not all surveys were thoroughly completed. Because vaccines

are not products for daily consumption, nor have they been commercialized in Vietnam, diverse participants have been surveyed to find out the group of consumers who are more likely to choose the ZyCoV-D vaccine originating from India. The participants were defined as Vietnamese citizens aged 18 years old and above, who have the knowledge and have known about COVID-19 vaccine products. The link to the questionnaire designed on a Google form is sent to respondents who are willing to provide information for primary data collection. This data collection instrument offers respondents flexibility since there is no urgency or pressure on respondents to provide instant answers. Respondents are allowed to think about the questions at their leisure and then reply when it is most convenient for them. This ensures that the responses will answer more truthfully without being impacted by a time rush (Conrad et al., 2017) or socially desirable bias (Tourangeau & Yan, 2007).

3.3. Analysis Methods

The descriptive statistics method was used to make statistics and describe the structure of the research sample. The Cronbach's alpha test was used to evaluate the reliability of the components in the research model, including Brand association, brand quality, and consumption intention. The structural equation model (SEM) was used to evaluate the relationship between brand equity and consumer intention. The Analysis of Variance (ANOVA) was used to compare the mean of factors between the sample groups.

4. Research Results

4.1. Sample Structure

The primary data was collected with 475 samples; the statistical results of the sample structure in Table 1 show that the sample group has males accounting for 58.97% and females accounting for 41.03%. By age group, the 18–22 group makes up 20.88%; the 23–30 group is 18.18%, the

31–40 group is 23.83%, the 41–50 group is 17.69%, the 51–65 group is 12.04% and the group of people over 65 years old is 7.37%.

4.2. Test the Reliability of the Scale

The results of testing the reliability of the scale sets are summarized in Table 2. The Brand association scale sets (Cronbach's Alpha = 0.94 > 0.90, the Corrected item - Total correlation coefficients are all greater than 0.50); Brand quality (Cronbach's Alpha = 0.94 > 0.90, Corrected item - Total correlation coefficients are all greater than 0.50); Consumption intention (Cronbach's Alpha = 0.87, Corrected item - Total correlation coefficients are all greater than 0.50). The scales of components in the research model are reliable.

4.3 The Impact of Brand Equity on Consumption Intention

The structural equation model was used to evaluate the relationship between brand equity (including Brand association – BA and Brand quality – BQ) and Consumption intention (CI). The results of the analysis are summarized in Table 3 and Figure 1, which provide evidence for the acceptance of hypotheses H1, H2, and H3 with 99% confidence.

The two components brand association and brand quality were used to measure the perceived brand equity of India's COVID-19 vaccine in Vietnam. Research results show that the two components are positively correlated with each other, with a correlation coefficient of 0.76*** ($p < 0.01$), according to which hypothesis H1 is accepted. If Vietnamese people have a positive feeling about the brand association of India's COVID-19 vaccine, there will be a positive effect on the perceived quality of the brand for the Indian-made COVID-19 vaccine. When perceived brand association increases by 1 unit, there will be an incremental effect of 0.76 on brand quality (Figure 1). This research result contributes to affirming the importance of brand communication for building and developing brand equity. Accordingly, for India's COVID-19 vaccine product, it is necessary to focus on improving the good association of the brand in such aspects as the country's image with a reputation for pharmaceutical production in the world, having many good experience and capacity in manufacturing pharmaceuticals and vaccines, proofs on the quality and effectiveness of Indian-made vaccines against COVID-19 need to be widely communicated in Vietnam, to promote good perception on brand association for the vaccine.

The two components of brand equity, including brand association (BA) and brand quality (BQ) have a statistically significant positive correlation with 99% confidence for consumption intention (CI). Specifically, the coefficient

Table 1: Sample Structure

Age	Male	Female	Total (%)
18–22 years old	0.98	19.90	20.88
23–30 years old	13.27	4.91	18.18
31–40 years old	19.66	4.18	23.83
41–50 years old	12.04	5.65	17.69
51–65 years old	9.09	2.95	12.04
Over 65 years old	3.93	3.44	7.37
Total (%)	58.97	41.03	100.00

Table 2: Results of Testing the Reliability of the Scale Sets in the Model

Set of scales	Code	Corrected Item - Total Correlation
Brand Association (BA), Cronbach's Alpha = 0.94		
I have good sympathy for India's COVID-19 vaccine	BA1	0.73
When it comes to Indian vaccines, I think of the good attributes of the product	BA2	0.89
I feel trust when I hear about the Indian vaccine	BA3	0.91
I have a positive attitude towards the Indian vaccine	BA4	0.89
Brand Quality (BQ), Cronbach's Alpha = 0.94		
The vaccine originated from India is safe for consumers	BQ1	0.74
The vaccine originated in India and has a high protective effect	BQ2	0.91
The vaccine originated in India has high immunity and protection	BQ3	0.90
The vaccine originated from India and has a long duration of immunity	BQ4	0.86
Consumption Intention (CI), Cronbach's Alpha = 0.87		
In the case of commercialization, I am highly likely to choose the Indian vaccine	CI1	0.70
When choosing between vaccines from different countries, I give priority to the vaccine originating from India	CI2	0.78
In the future, I will consider choosing the vaccine originating from India to meet my needs	CI3	0.78

Table 3: Results of the Correlation Between BA, BQ, and CI

Correlation	Estimate	p	Hypothesis	Result
BA → BQ	0.76	***	H1 (Brand association has a positive impact on perceived brand quality)	Accepted
BA → CI	0.51	***	H2 (Brand association has a positive impact on consumption intention)	Accepted
BQ → CI	0.32	***	H3 (Perceived brand quality has a positive impact on consumption intention)	Accepted

***p-value < 0.01.

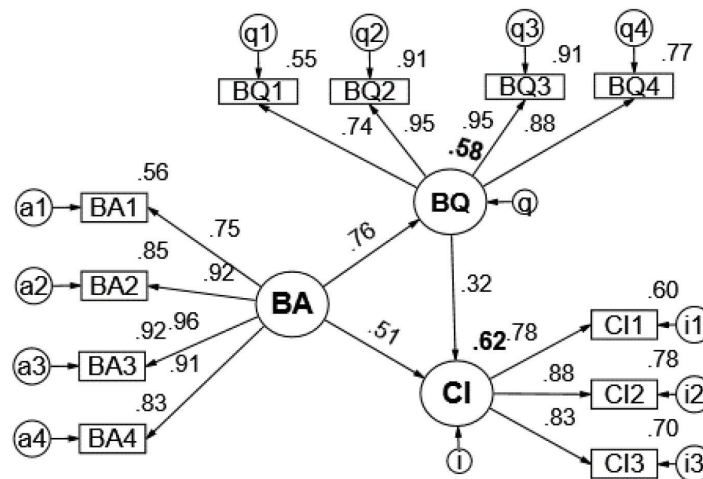


Figure 1: Impact of Brand Equity on Consumer Intention

of brand association and consumption intention is 0.51*** ($p < 0.01$). Accordingly, hypothesis H2 is accepted. That is, the brand association has a direct positive correlation with consumption intention. When consumers’ perception of brand association increases by 1 unit, it will contribute to an increase of 0.51 units in consumption intention. Similarly, the correlation between perceived brand quality and consumption intention is 0.32*** ($p < 0.01$), and hypothesis H3 is accepted. When consumers’ perception of brand quality increases by 1 unit, there will be an increase of 0.32 units in consumption intention. Thus, perceived brand equity has a positive correlation with consumption intention. Especially in the pharmaceutical industry, consumers’ interest in the brand is very high, such as brand association or perceived quality, before making a purchase decision. The results of this study have demonstrated the positive relationship between brand equity and consumer intention for the brand in the case study of COVID-19 vaccine products in Vietnam.

Two components of brand equity, including brand association and brand quality, explain 62% of the variation of consumption intention for Indian COVID-19 vaccine products in the Vietnamese market. That is, the impact of perception on brand equity from the customer’s perspective will have a significant impact on intention. The results of this study show the importance of building and developing brand equity in promoting consumption intention. In particular,

this experimental study was conducted on the COVID-19 vaccine product in Vietnam, the country with the third-largest population in Southeast Asia and ranked 15th in the world, promising a noticeable market for vaccine consumption in the future.

The results of mean consumption intention for Indian COVID-19 vaccine products by occupation, age, education, and income groups are summarized in Table 4 with Sig values from 0.11–0.62, greater than 0.05, indicating the difference in mean consumption intention between the sample groups by occupation, age, education, and income is not statistically significant with 95% confidence. That is, the average consumption intention is quite similar across the demographic sample groups, which shows that for pharmaceutical products, products at an early stage in the product life cycle and the market is not segmented, the needs and intentions among customer groups are quite similar.

The statistical results show that Vietnamese people have a good perception of brand equity in India-made COVID-19 vaccine products (Table 5). Specifically, the mean value of brand association is 3.21/5.0, in which the group of people aged 18–22 years old highly rated it (mean = 3.28/5.0), and the group of people aged 65 and older rated it the lowest (mean = 2.99/5.0). The mean value of perceived brand quality is 3.18/5.0. Specifically, the sample group aged 18–22 years old highly appreciated the quality of India’s COVID-19

Table 4: Results of ANOVA Test on Mean Consumption Intention by Occupation, Age, Education, and Income Groups

	Sum of Squares	df	Mean Square	F	Sig.
Between occupation groups	2.40	5.00	0.48	0.85	0.52
Between age groups	2.01	5.00	0.40	0.71	0.62
Between educational groups	4.23	4.00	1.06	1.89	0.11
Between income groups	2.10	4.00	0.52	0.93	0.45

Table 5: Statistics on Mean Brand Equity and Consumer Intention by Age Group

Age	N	Mean		
		Brand Association	Brand Quality	Consumption Intention
18–22 years old	103	3.28	3.25	2.97
23–30 years old	91	3.18	3.16	2.91
31–40 years old	114	3.25	3.16	2.80
41–50 years old	78	3.22	3.23	2.95
51–65 years old	59	3.14	3.17	2.89
Over 65 years old	30	2.99	3.04	2.80
Total	475	3.21	3.18	2.89
Sig. (ANOVA)		0.41	0.66	0.62

vaccine brand (mean = 3.25/5.0), while the group of people aged 65 years and older rated the lowest (mean = 3.04/5.0). The test results on mean values between the sample groups by age show that the difference is not statistically significant, with 99% confidence in the perceived brand equity for the COVID-19 vaccine and the consumption intention (Sig. (ANOVA) of brand association is 0.41; Sig. of brand quality is 0.66 and Sig. of consumption intention is 0.62).

The measurement of the intention to consume India's COVID-19 vaccine in the Vietnamese market is at an average level (mean = 2.89/5.0). The results of this study show that the vaccine product of India needs more investment to contribute to the increase in consumer intention for the product. In particular, it is necessary to focus on the investment of propaganda and communication programs to improve the perception of Vietnamese people about the good characteristics of products and product quality. To improve the perception of brand association, focus on communication content to increase: good sympathy, good attributes, confidence in the product, and positive attitude of COVID-19 vaccine made in India. From good brand association, the perceived quality will increase. To improve the perceived quality, it is necessary to focus on the following attributes of vaccines: safe, high protective effect, high immunity and protection, and long duration of immunity of COVID-19 vaccine are made in India.

5. Conclusion

The results of the study on the impact of brand equity on the consumption intention of India's COVID-19 vaccine in Vietnam show that perceived brand equity has a positive effect on consumption intention. These results continue to reinforce previous studies such as Aaker (1991, 1996), Ashill and Sinha (2004), Cobb-Walgreen et al. (1995), and Chang and Liu (2009). Particularly, the brand association has more of a direct positive influence on consumption intention than brand quality. The findings are consistent with earlier research such as O'Cass and Lim (2002) and Jang et al. (2018). The study's findings show how important it is to build brand equity to foster consumer intention toward the brand. In particular, the brand gets more interest in the pharmaceutical field since these products are coupled with consumers' health and safety. The advantages a brand receives in influencing customer intention increase with its reputation.

The results also recorded a positive correlation between two components of brand equity, brand association, and brand quality. It implies that a positive association with the brand will drive a direct positive impact on brand quality. This study contributes to backing previous studies about the positive correlation between components in brand equity, such as Zeithaml (1988), Kotler (2000), and Phan et al.

(2019). The research illustrates that the brand communication goals towards building and developing brand equity should pay attention to the creation of good brand associations and the rise of brand quality. In particular, for COVID-19 vaccine products, the focus of messages and contents should be on attributes such as safe, high protective effect, high immunity and protection, and long duration of immunity of vaccine.

The study also recommends that Indian producing COVID-19 vaccine companies need to increase investment in establishing and growing brand equity more in the Vietnamese market to be able to increase their sales. The concentration on the nation's inner advantages, such as a long-standing, reputable pharmaceutical industry and a large number of pharmaceutical companies supplying medical products globally, is a sensible suggestion to increase the perception of brand equity for Indian-made vaccines. As a result, consumers' choosing India's COVID-19 vaccine intention can be facilitated due to the improvement of the perception of brand association and brand quality.

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