
CUSTOMER-BASED BRAND EQUITY IN INDONESIA'S HIGHER EDUCATION INSTITUTION

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ABSTRACT

Objective: This study aimed to examine the causal order among dimensions of customer-based brand equity (CBBE) in Indonesian higher education institutions. The core dimensions of brand equity used are brand awareness, brand association, perceived quality, and brand loyalty. **Research Design & Methods:** This study used a research instrument questionnaire with a 5-point Likert scale. The research sample is 150 students of the Universitas Terbuka in Jayapura. The research hypotheses were tested using PLS-SEM with the SmartPLS version 3 as the supporting software. **Findings:** The results showed a causal order among the CBBE dimensions. Brand awareness has a positive and significant effect on perceived quality. The perceived quality has a positive and significant effect on brand loyalty, and brand awareness indirectly affects brand loyalty through perceived quality. This study cannot prove the moderating role of brand association on the relationship between brand awareness and perceived quality. **Implications & Recommendations:** This study provides implications and recommendations for the management of higher education institutions to create brand loyalty with a gradual process starting from developing a brand awareness strategy and then building positive perceived quality. **Contribution & Value Added:** This study significantly extends the CBBE literature in the higher education institution sector, especially in Indonesia, which is still rarely studied. This study provides novelty by examining causal sequences and interactions on the CBBE dimensions.

Keywords: brand awareness; brand association; perceived quality; brand loyalty; higher education.

JEL codes: I23, M31

Article type: research paper

INTRODUCTION

Higher education institutions recognize that marketing activities are essential to enhance a university's reputation (Palfreyman & Tapper, 2016; Vukasovic, 2015). The changing market and high competition require higher education institutions to develop sustainable brand strategies (Khanna et al., 2019; Pinar et al., 2014, 2020). A brand is the most critical asset for all companies because it can differentiate from competitors and significantly motivate purchasing decisions (Tran et al., 2020). A strong brand will cut off the proliferation of choice from a wide range of product and service categories (Aggarwal Sharma et al., 2013). Therefore, higher education institutions must manage and develop their brands (Girard & Pinar, 2021) and reputations to attract more selective and demanding millennial student bodies (Setkab, 2022). Meanwhile, as of 2019, there were 4,621 higher education institutions in Indonesia to serve 8.3 million registered students (Kemendikbud, 2020), making the university-level education competition became highly competitive.

Previous research has proven that managing branding enables higher education institutions to improve services and retain students (Bennett & Ali-Choudhury, 2009; Watkins & Gonzenbach, 2013). With good branding, higher education institutions will gain and maintain a competitive advantage over competitors (Khoshtaria et al., 2020). Branding can also help parents and children receive information related to higher education services, ultimately attracting their interest in choosing the brand (Harvey & Busher, 1998). Branding helps parents and students select and determine higher education (Judson et al., 2008).

Marketing research and practice have taken an interest in the process of building strong relationships between brands and consumers over the past two decades (Vukasović, 2016; Nabila et al., 2020). Several previous studies focusing on the promotion and branding of higher education institutions suggest replacing the core focus of branding on the student experience (Ng & Forbes, 2009; Pinar et al., 2011). Students are the main stakeholders (customers) in higher education institutions (Khanna et al., 2019). To build a strong brand, customers must have brand awareness to respond positively to marketing activities and programs (Keller, 2009). Therefore, higher education institutions must create branding strategies that focus on students (customers) (Roskosa & Stukalina, 2020). In the context of Indonesia's higher education institutions, Hariyanto and Budi (2011) found that the student parents' perception affected the university's brand equity. Meanwhile, Farida et al. (2020) found that brand awareness is critical for prospective students to choose a university.

Keller (1993) coined the term customer-based brand equity (CBBE), which is the difference in the effect of brand awareness on consumer reactions to brand marketing. From the consumer's point of view, brand equity represents characteristics such as better performance, reduced risk, reduced information costs, and a favorable product image (Mourad et al., 2011). Customer involvement with higher education institution brands is related to purchasing decisions and brand loyalty. Students re-apply for advanced higher education, provide good word of mouth, recommend to others, and support colleges as alumni (Kalafatis & Ledden, 2013; Kaushal & Ali, 2020).

Several studies have examined CBBE in Indonesia's higher education sector (Farida et al., 2020; Hariyanto & Budi, 2011; Puspitasari & Jayanti, 2019), but very few have examined the relationships and interactions between the dimensions of CBBE. Pinar et al. (2011) examined the relationship between social brand engagement, CBBE, and brand choice intention related to higher education institutions. Pinar et al. (2014) and Khoshtaria et al. (2020) examine the influence of brand equity's core dimensions and the supporting dimensions for creating a brand and higher education brand equity. Vukasovic (2015) examines consumer attributes, brand awareness attributes, and brand image attributes on the brand value of higher education. Khanna et al. (2019) examine the factors influencing alumni's higher education brand resonance.

Pinar et al. (2020) empirically tested the relationship between the dimensions of CBBE and its effect on creating substantial university brand equity from the student's point of view. However, this study did not examine a causal order. According to Yoo and Donthu (2001), there may be a potential causal order among brand equity dimensions, such as awareness and associations precede perceived quality and perceived quality precede brand loyalty. Roy and Chau (2011) support the predictions of Yoo and Donthu (2001) and prove that there is a causal order relationship of CBBE dimensions, but between global and local brands not in the higher education sector. The CBBE model views building a solid brand as a series of gradual steps from the bottom up (Keller, 2009). It means that a sequential reliance among CBBE variables (i.e., brand awareness, brand image, and brand equity) is critical (Biel, 1992; Netemeyer et al., 2004; Yoo & Donthu, 2001). Moreover, it is relatively limited studies in different contexts, nature of products or services, and type of industry. Therefore, this study examines the causal order relationship among the dimensions of brand equity of higher education institutions to respond to prior studies' suggestions.

This study focuses on applying existing theories regarding customer-based brand equity in the higher education sector in Indonesia. So far, researchers have not found any research that examines the causal sequence between CBBE dimensions in the higher education sector in Indonesia. The dimensions of the CBBE tested are the main general dimensions based on Aaker (1991) and Keller (1993), namely

brand awareness, brand association, perceived quality, and brand loyalty. Understanding the relationships and interactions of the core dimensions of CBBE is critical to developing a branding strategy for higher education institutions. Higher education can gradually develop branding strategies that create substantial brand equity.

LITERATURE REVIEW

Customer-Based Brand Equity (CBBE)

Keller (1993) defines CBBE as the difference in the effect of brand awareness on consumer reactions to brand marketing. In the CBBE model, consumer brand awareness, created through marketing programs and activities, greatly determines brand equity (Keller, 2009). Companies achieve customer-based brand equity when customers have high brand awareness and familiarity and have strong, profitable, and unique brand associations (Keller, 2008).

The CBBE model views building substantial brand equity as a process and occurs in stages (Keller, 2009). This stage starts with identifying the brand with customers, building brand meaning in customers' minds, being associated with several brand associations, eliciting appropriate customer judgments and feelings, and finally converting brand responses into loyalty relationships (Keller, 2009). Therefore, this study examines the causal sequence between the main CBBE dimensions, namely brand awareness, brand association, perceived quality, and brand loyalty in the higher education institution sector.

Brand Loyalty

Brand loyalty is the customer's attachment to a particular brand (Liu & Hu, 2013). Brands that succeed in creating high brand loyalty will be the primary choice of customers when they want to buy or use a product or service (Yoo & Donthu, 2001). As a result, brand loyalty can minimize the influence of marketing activities from competitors and increase the company's influence in distribution (Moon et al., 2010).

Brand loyalty is one of the important things that companies must-have because it provides many benefits for consumers and themselves (Alhaddad, 2015; Saleem et al., 2015). According to Thompson et al. (2014), brand loyalty can provide benefits such as larger market share, good profitability, and more consumers who are less sensitive to competitors' marketing efforts. In the higher education sector, the application of brand loyalty can differ from the production sector because, for most people, getting a higher education degree is a one-time purchase (Vukasovic, 2015). Therefore, brand loyalty in higher education emphasizes student financial contributions or donations (Lai et al., 2019). It also relates to recommending higher education to other prospective students, re-enrolling in the same higher education for the next level of education, or joining alumni associations (Brown & Mazzarol, 2009; Kaushal & Ali, 2020).

Brand Awareness

Brand awareness is related to how strong the brand is in the customer's memory which is reflected in the customer's ability to remember or perceive a brand under various conditions (Keller, 2009). Meanwhile, according to Aaker (1991, p. 61), brand awareness is "the ability of buyers to recognize or recall that a brand is a member of a particular product category." Brand awareness can increase consumer perceptions of brand attributes (J. Su, 2016) and is one of the requirements of consumers' intentions to buy products or services (Kadir & Shamsudin, 2019).

Research by Pinar et al. (2020) proved that brand awareness is an essential factor in forming a strong higher education brand and brand equity and influences directly or indirectly on other dimensions of equity. Higher education needs first to develop customer brand awareness because, according to Keller (2008), brand awareness is the first stage in forming brand equity. When customers are aware of and perceive the brand well, there will be a high tendency to rate the product better and make a purchase decision (Su & Chang, 2018; Valentini et al., 2018).

Developing good brand awareness will increase customers' positive perceptions of the products offered (Chansuk & Chaipooirutana, 2020). According to Dodds et al. (1991), when a customer has a high brand awareness of a particular product or service, it will lead to a higher overall product evaluation and positive perceived quality. Therefore, brand awareness can effectively reduce consumers' risk from evaluating a given product (Hsu & Hsu, 2008). High brand awareness will encourage customer association and closeness with the brand (Moon et al., 2010). According to Cobbs-walgren et al. (1995), intensive brand awareness will create an excellent perceived brand quality. This result is in line with previous research, which found a significant positive relationship between brand awareness and perceived quality (Buil et al., 2013; Cakmak, 2016; Chi et al., 2009; Dib & Alhaddad, 2014; Ding & Tseng, 2015). Therefore, referring to the previous empirical findings, the first hypothesis proposed is:

H1: Brand awareness has a positive and significant effect on perceived quality

Perceived Quality

Perceived quality is a consumer assessment related to the company's ability to create superior product value (Parasuraman, 1998). Some researchers see perceived quality as personal and subjective; consumers assess whether a product is worth buying and become a consumer experience in using a product (Chen, 2001; Kakkos et al., 2015; Olsen, 2002). According to Sivaram and Munawar (2019), when a brand meets consumer expectations, it will form a good perceived quality.

Perceived quality is essential for brand loyalty (Chaudhuri, 1999). Many previous researchers examined perceived quality as an antecedent of brand loyalty (Aydin & Ozer, 2005; Biedenbach & Marell, 2009; Dick & Basu, 1994; L. Su et al., 2016). Consumers will decide to repurchase a brand and remain loyal to it if consumers get excellent quality or service from the brand (Yoo et al., 2000). According to Selnes (1993), loyalty can occur when the perceived quality has been assessed as good and has provided a good experience for customers.

When the consumer's perceived quality increases, it will automatically increase brand loyalty (Ha & Park, 2012; Hameed, 2013). Lavidge and Steiner (1961) found that consumers will repurchase a product if the product quality meets expectations. If the quality of a product or service is good, the attitude towards the product becomes positive and results in loyal customers (Moon et al., 2010). Das (2015) added that controlling perceived quality to consumers will control brand loyalty. Previous researchers found a positive and significant relationship between perceived quality and brand loyalty (Chang, 2014; Herrero-Crespo et al., 2016; Kim et al., 2018; Maria & Loureiro, 2013; Markovic et al., 2015; Roy & Chau, 2011; Su, 2016). Therefore, referring to the theory and previous empirical findings, the second hypothesis proposed is:

H2: Perceived quality has a positive and significant effect on brand loyalty

Several previous researchers have proven that perceived quality can be an excellent mediation to increase brand loyalty (Hameed, 2013; Lacap et al., 2021; Pappu & Quester, 2016; Vacas de Carvalho et al., 2020). More specifically, research by Roy and Chau (2011) shows that perceived quality mediates the relationship between brand awareness and brand loyalty. When customers are familiar with a brand and consider the brand to have satisfactory quality, the customer will tend to be loyal to the brand (Su, 2016). Companies must build brand awareness first, then build a perception of quality as a good and reliable brand to form a positive customer attitude (Chang, 2014; Hameed, 2013). Therefore, the next hypothesis proposed is:

H3: Perceived quality mediates the relationship between brand awareness and brand loyalty

Brand Association

According to Aaker (1991), brand associations are all things in the customer's memory related to the brand. Customers can associate brands with specific attributes such as usage situations, product representations, or logos (Lu & Xu, 2015). According to Yasin et al. (2007), the brand association is an aspect that customers remember non-physical, innovation, position, and brand reputation. The

brand association represents the impression given by consumers, including perceptions, conclusions, beliefs, and knowledge that exists on the brand (Mann dan Ghuman, 2014).

Brand associations help customers process, organize, and retrieve information in memory to make purchasing decisions (Low & Lamb, 2000). When a customer has a higher brand association, it will increase the liking and attachment to the chosen brand (Susilowati & Sari, 2020). This study assumes that brand association can strengthen the relationship between brand awareness and perceived quality. When a customer has a better brand association, it will lead to a higher relationship between brand awareness and perceived quality. This argument is based on Xu et al.'s (2015) findings that with reasonable prices and high brand image, the relationship between brand awareness and perceived quality is getting stronger. The brand image consists of brand associations meaningfully (Aaker, 1991). Customer's brand association can affect the perception of superiority or inferiority; the better the brand association, the better the perceived quality (Shekhar Kumar et al., 2013). Therefore, the fourth hypothesis proposed is:

H4: Brand association strengthens the positive influence of perceived quality on brand awareness. When higher education has good brand associations, perceived quality on brand awareness is getting stronger.

Figure 1 summarizes the four hypotheses proposed in this study.

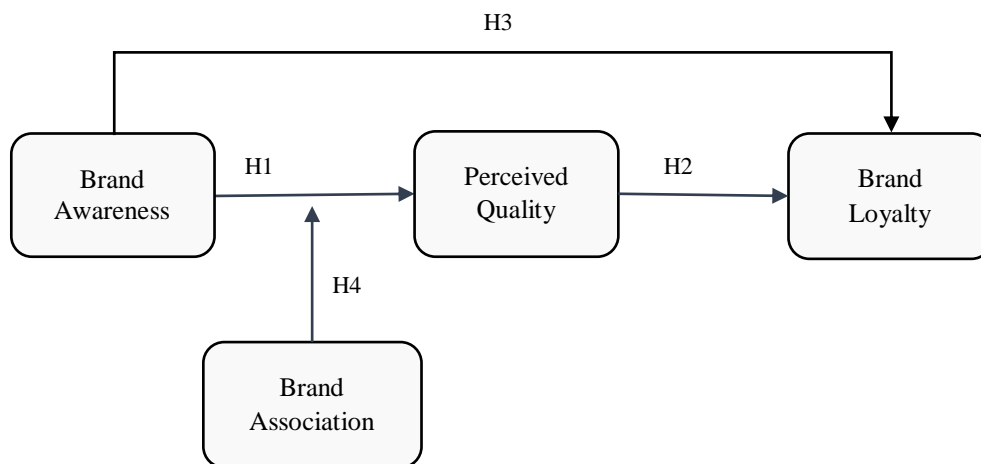


Figure 1. Research Model

Source: The authors

METHODS

The researcher chose the Universitas Terbuka students as the research sample. Due to the competition for distance-higher education in Indonesia is getting more challenging, the Universitas Terbuka, a pioneer of distance higher education, needs to develop a brand equity strategy to compete with other universities. College students were selected as the sample because of the main focus of customer-based branding and are direct recipients of educational services (Ng & Forbes, 2009; Pinar et al., 2011). This study used an instrument in the form of a questionnaire compiled with a 5-point Likert scale, 1-strongly disagree, 2-disagree, 3-disagree, 4-agree, and 5-strongly agree. Questionnaires were distributed to all research samples of 150 students from the Open University in Jayapura during April-June 2020. However, only 104 were returned and could be used as research data.

Data were analyzed using Partial Least Square Structural Equation Modeling (PLS-SEM) with the help of SmartPLS 3 software. The first step in evaluating the results of the PLS-SEM test is to analyze the measurement model seen from convergent validity, internal consistency reliability, and discriminant validity. A structural model analysis will be carried out if the measurement model has met the criteria (Hair et al., 2017). Furthermore, the hypothesis is tested by looking at the path coefficient and significance values.

FINDINGS

Table 1 shows the demographic characteristics of the respondents. This study analyzed respondents based on gender, age, last education, and occupation. The analysis shows that the majority of respondents are female (53.85%), aged 18-25 years (53.85%), the last education is senior high school or equivalent (85.58%), and works as a private employee (27.88%).

Table 1. Demographic Characteristics of Respondents

Category		Number of Respondents	Percentage (%)
Gender	Male	48	46.15
	Female	56	53.85
Age	< 18 years old	4	3.85
	18-25 years old	56	53.85
	26-40 years old	24	23.08
	> 40 years old	20	19.23
Last Education	Senior High School	89	85.58
	Diploma	10	9.62
	Bachelor	4	3.85
	Master	1	0.96
Profession	Not working	8	7.69
	Housewife	13	12.50
	Civil Servants	24	23.08
	Private Employees	29	27.88
	Entrepreneur	5	4.81
	Others	25	24.04

Source: Data processed

Measurement Model

Evaluation of the measurement model is helpful to ensure that the research model is feasible to use as a measurement (valid and reliable). The measurement model assesses convergent validity with factor loading and Average Variance Extracted (AVE) values, assesses internal consistency reliability with Composite Reliability (CR), and assesses discriminant validity with Heterotrait-Monotrait ratio (HTMT).

Based on Table 2, the factor loading values of all items have met the criteria, which are close to or even greater than the recommended cut-off value of 0.7 (Hair et al., 2019). In addition, it has met convergent validity because the AVE value of all constructs is >0.5 . The researcher eliminated several items in the initial factor loading because the factor loading value was shallow. The items are one item of brand awareness (BAW1), nine items of perceived quality (PQ5, PQ10, PQ14, PQ15, PQ16, PQ17, PQ18, PQ19, PQ20), seven brand association items (BAS1, BAS3, BAS4, BAS5, BAS6, BAS7, BAS11), and one brand loyalty item (BL2).

The next step is to assess internal consistency reliability by looking at the CR value. Table 2 shows that the CR values of all constructs ranged from 0.901 to 0.951, exceeding the recommended level of 0.7 (Hair et al., 2019). The discriminant validity with the HTMT ratio in Table 3 shows that the HTMT value is in the range of 0.175-0.771. This value is lower than the threshold value of 0.90. If the HTMT value is > 0.90 , there is no discriminant validity (Hair et al., 2019).

Structural Model

When the assessment of the measurement model is satisfactory, the next step in evaluating the results of the SEM-PLS is to assess the structural model. The standard assessment criteria are the coefficient of determination (R^2). R^2 ranges from 0 to 1, with higher values indicating greater explanatory power. R^2 values of 0.75 are considered substantial, 0.50 moderate, and 0.25 weak (Hair et al., 2011; Hair et al., 2019). Based on Table 4, the R^2 value of perceived quality is 0.561, which means that brand awareness explains the perceived quality of 56.1%. The R^2 value of brand loyalty is 0.508, which means that 50.8% of brand loyalty is explained by perceived quality. The explanatory power in both models is in the moderate category.

Table 2. Factor Loading and Reliability Coefficients

Variable	Loading	AVE	CR
Brand Awareness		0.719	0.910
BAW2 (an alternative to study at the university level)	0.720		
BAW3 (self-reliance learning style)	0.908		
BAW4 (online/virtual-based tutorial class)	0.948		
BAW5 (no admission year limitation)	0.797		
Perceived Quality		0.504	0.951
PQ1 (registration information availability)	0.691		
PQ2 (registration forms availability)	0.665		
PQ3 (the easiness of getting tuition fee forms)	0.669		
PQ4 (examination data accuracy)	0.655		
PQ6 (academic staff carefulness)	0.747		
PQ7 (academic service quick-response)	0.724		
PQ8 (tuition fee-payment flexibility)	0.655		
PQ9 (tuition fee-billing accuracy)	0.711		
PQ11 (the correctness of received modules with reservation)	0.663		
PQ12 (reserved-modules delivery speed)	0.661		
PQ13 (received-modules flexibility)	0.725		
PQ21 (examination location accessibility)	0.730		
PQ22 (tutorial information easiness)	0.759		
PQ23 (on scheduled online tutorial)	0.687		
PQ24 (online tutorial supports to understand the material)	0.720		
PQ25 (examination invigilators' professionalism)	0.723		
PQ26 (examination practice orderliness)	0.746		
PQ27 (the easiness of having examination results)	0.704		
PQ28 (timely examination results' announcement)	0.828		
Brand Association		0.588	0.918
BAS2 (flexible learning time)	0.602		
BAS8 (qualified higher education institution)	0.753		
BAS9 (it is fit for distant people out of classical university)	0.838		
BAS10 (it is fit for working people to continue their study)	0.673		
BAS12 (the graduates are widely recognized)	0.880		
BAS13 (it is a public university)	0.853		
BAS14 (affordable tuition fee)	0.816		
BAS15 (life-long learning style)	0.671		
Brand Loyalty		0.696	0.901
BL1 (having good knowledge about the university)	0.755		
BL3 (feeling satisfied studying in the university)	0.876		
BL4 (getting like studying in the university)	0.804		
BL5 (enthusiastically promoting the university to other people)	0.894		

Source: Data processed

Table 3. Heterotrait-Monotrait Ratio (HTMT)

	Brand Association	Brand Awareness	Brand Awareness*Brand Association	Brand Loyalty	Perceived Quality
Brand Association					
Brand Awareness	0.502				
Brand Awareness*Brand Association	0.365	0.176			
Brand Loyalty	0.503	0.735	0.252		
Perceived Quality	0.537	0.771	0.175	0.746	

Source: Data processed

Table 4. R-Square Value

	R-Square	R-Square Adjusted
Brand Loyalty	0.508	0.504
Perceived Quality	0.561	0.547

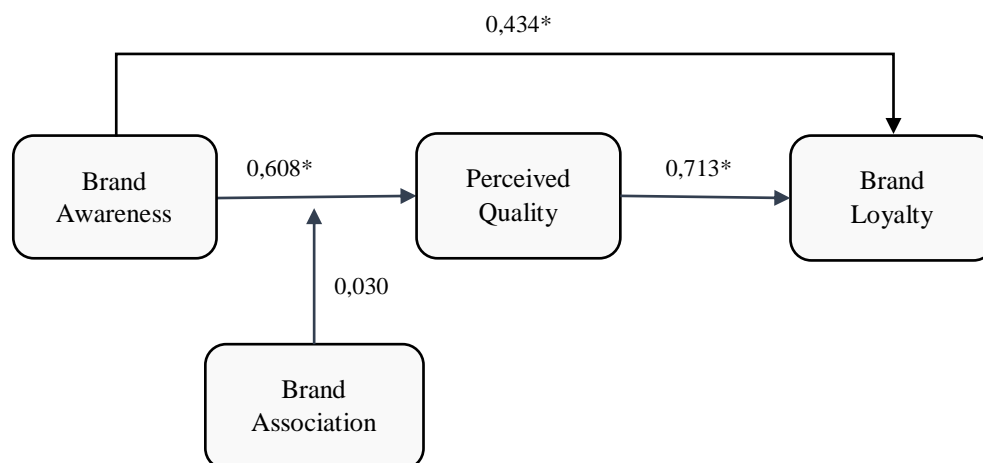
Source: Data processed

Next is to analyze the results of hypothesis testing, which are summarized in Table 5 and Figure 2. The direct effect of brand awareness on perceived quality has a path coefficient value of 0.608 and a p-value of $0.000 < 0.05$, which means a positive and significant effect. The direct effect of perceived quality on brand loyalty has a path coefficient of 0.713 and a p-value of $0.000 < 0.05$, which means a positive and significant effect. The two direct influence hypotheses (H1 and H2) can be proven in this study. Testing the mediation hypothesis shows that the path coefficient is 0.434 and the p-value is $0.000 < 0.005$. Thus, perceived quality can mediate the relationship between brand awareness and brand loyalty so that the third hypothesis is accepted. The moderating hypothesis is not supported because the p-value is $0.776 > 0.005$. The brand association cannot moderate the relationship between brand awareness and perceived quality and does not support the fourth hypothesis.

Table 5. Hypothesis Testing Results

Hypothesis	Path Coefficient	P-Value	Hypothesis Result
Direct Effect			
H1 Brand Awareness → Perceived Quality	0.608	<0.001	Supported
H2 Perceived Quality → Brand Loyalty	0.713	<0.001	Supported
Mediation Effect			
H3 Brand Awareness → Perceived Quality → Brand Loyalty	0.434	<0.001	Supported
Moderation Effect			
H4 Brand Awareness*Brand Association → Brand Loyalty	0.030	0.776	Not Supported

Source: Data processed



Notes: * $p < 0,01$

Figure 2. Hypothesis Testing Results

Source: Data processed

DISCUSSION

The finding of hypothesis 1 testing shows that brand awareness has a positive and significant effect on perceived quality. These results support previous research, which also found a positive effect of brand awareness on perceived quality (Buil et al., 2013; Cakmak, 2016; Chi et al., 2009; Dib & Alhaddad, 2014; Ding & Tseng, 2015). It means that universities should build and develop appropriate platforms to increase their stakeholders' brand awareness. Then, the finding of hypothesis 2 testing shows that perceived quality has a positive and significant effect on brand loyalty which supports the findings of Chang (2014), Herrero-Crespo et al. (2016), Kim et al. (2018), Maria and Loureiro (2013), Markovic et al. (2015), Roy and Chau (2011), and Su (2016). It implies that the university's successful brand awareness programs lead to higher perceived quality, subsequently increasing brand loyalty.

The finding of hypothesis 3 testing shows that perceived quality can partially mediate the relationship between brand awareness and brand loyalty. These results support the research of Roy and Chau (2011), who also found that perceived quality can mediate the relationship between brand awareness

and brand loyalty. Higher education institutions must pay attention to a good brand awareness development strategy to affect customer brand loyalty indirectly. When customers are familiar with a brand and consider the brand to have satisfactory quality, the customer will tend to be loyal to the brand (Su, 2016).

This study cannot prove that brand association moderates the relationship between brand awareness and perceived quality. Students' level of brand association does not significantly strengthen the relationship between brand awareness and perceived quality. The finding opens an opportunity to explore the direct effect of brand association on perceived quality rather than testing it as moderating variable.

Although the moderating hypothesis was not proven, this study confirmed the existence of a causal sequence on the CBBE dimensions in higher education institutions. Given this causal sequence, institutions must gradually develop substantial brand equity or brand loyalty. Higher education needs to increase the brand awareness of students or prospective students to have a positive perception of service quality. The first step that higher education institutions need to take is to develop brand awareness so that customers (students) have a strong memory of the brand. Higher education institutions can increase brand awareness by increasing marketing activities. Higher education can change the focus from traditional marketing activities to digital marketing, such as electronic media and social media in today's digital era. With the use of electronic media, customers can interact with brands and choose the content they engage with (Pinar et al., 2020).

After the customer has strong brand awareness, the next step is to create a strategy for positive perceived quality. Higher education institutions can create positive perceived quality by paying attention to the services provided to students and emphasizing the creation of positive experiences. Higher education institutions must maximize registration services, teaching materials provision services, online tutorial services for higher education institutions with distance learning programs, and exam services. Higher education institutions need to strive to provide services that meet student expectations. Good perceived quality will be formed when a brand succeeds in meeting the expectations of its customers (Sivaram & Munawar, 2019). If the quality of a product or service is good, the customer's attitude towards the product becomes positive, and brand loyal customers (Moon et al., 2010).

When higher education institutions succeed in creating strong brand awareness and positive perceived quality, they will be able to produce students who are loyal to the brand of higher education institutions. Brand loyalty can provide significant benefits for higher education institutions such as larger market share, good profitability, and customers who are less sensitive to competitors' marketing efforts (Thompson et al., 2014). In addition, loyal students will tend to recommend the institution's brand to others, give a positive word of mouth, re-enroll in the same higher education for the next level of education, or even join alumni associations (Brown & Mazzarol, 2009; Kaushal & Ali, 2020).

CONCLUSION

This study confirms the existence of a causal sequence among the dimensions of CBBE in the higher education sector. The results showed that brand awareness had a positive and significant effect on perceived quality, then perceived quality had a positive and significant effect on brand loyalty. Brand awareness had an indirect effect on brand loyalty through perceived quality. Thus, higher education institutions need to pay attention to the causal order among the CBBE dimensions to create strong brand loyalty and brand equity.

The findings of this study contribute to the literature on customer-based brand equity. In addition, this research also provides practical implications for higher education institutions to build brand loyalty. To create brand loyalty, the first step that the management of higher education institutions must take is to develop a brand awareness strategy. Management of higher education institutions can combine traditional marketing activities such as advertisements, pamphlets or brochures, and digital marketing to increase customer awareness of the higher education institution's brand. After solid brand awareness, the next step is to build a positive perceived quality. Build perceived quality by providing

services that meet student needs and create a positive experience. The management of higher education institutions needs to be aware that any changes in the dimensions of CBBE will have a direct or indirect effect on the level of student loyalty to the institution's brand.

This study still has many limitations, such as the small number of respondents, only testing the four core dimensions of brand equity, and only using one higher education institution as a sample. It is not representative of higher education institutions in Indonesia as a whole. Therefore, further researchers can re-examine this research by multiplying and expanding the research sample and adding other dimensions of brand equity.

REFERENCES

- Aaker, D. A. (1991). *Managing Brand Equity: Capitalizing on the Value of a Brand Name*. New York: The Free Press.
- Aggarwal Sharma, A., Rao, V. R., & Popli, S. (2013). Measuring consumer-based brand equity for Indian business schools. *Journal of Marketing for Higher Education*, 23(2), 175–203. <https://doi.org/10.1080/08841241.2013.866609>
- Alhaddad, A. (2015). Perceived Quality, Brand Image and Brand Trust as Determinants of Brand Loyalty. *Journal of Research in Business and Management*, 3(4), 01–08.
- Aydin, S., & Ozer, G. (2005). The Analysis of Antecedents of Customer Loyalty in The Turkish Mobile Telecommunication Market. *European Journal of Marketing*, 39(7/8), 910–925. <https://doi.org/10.1108/03090560510601833>
- Bennett, R., & Ali-Choudhury, R. (2009). Prospective Students' Perceptions of University Brands: An Empirical Study. *Journal of Marketing for Higher Education*, 19(1), 85–107. <https://doi.org/10.1080/08841240902905445>
- Biedenbach, G., & Marell, A. (2009). The impact of customer experience on brand equity in a business-to-business. *Journal of Brand Management*, 17(6), 446–458. <https://doi.org/10.1057/bm.2009.37>
- Biel, A.L. (1992). How brand image drives brand equity. *Journal of advertising research*, 32(6), 6–12.
- Brown, R. M., & Mazzarol, T. W. (2009). The importance of institutional image to student satisfaction and loyalty within higher education. *Higher Education*, 58(1), 81–95. <https://doi.org/10.1007/s10734-008-9183-8>
- Buil, I., de Chernatony, L., & Martínez, E. (2013). Examining the role of advertising and sales promotions in brand equity creation. *Journal of Business Research*, 66(1), 115–122. <https://doi.org/10.1016/j.jbusres.2011.07.030>
- Cakmak, I. (2016). The role of brand awareness on brand image, perceived quality and effect on risk in create brand trust. *Global Journal on Humanities and Social Sciences*, 4, 183–192.
- Chang, E.-C. (2014). Influences of the spokes-character on brand equity antecedents. *Asia Pacific Journal of Marketing and Logistics*, 26(3), 494–515. <https://doi.org/10.1108/APJML-02-2013-0030>
- Chansuk, S., & Chaipoopirutana, S. (2020). An Integrated Model of Influence of Perceived Quality , Perceived Value , Brand Association , Brand Awareness and Brand Uniqueness on Brand Loyalty Towards a Luxury Brand in Bangkok , Thailand . *Au Virtual International Conference 2020*, 477–489.
- Chaudhuri, A. (1999). Does Brand Loyalty Mediate Brand Equity Outcomes ? *Journal of Marketing*. <https://doi.org/10.1080/10696679.1999.11501835>
- Chen, A. C. (2001). Using Free Association To Examine The Relationship Between The Characteristics of Brand Associations and Brand Equity. *Journal of Product and Brand Management*, 10(7), 439–451.
- Chi, H. K., Yeh, H. R., & Yang, Y. T. (2009). The Impact of Brand Awareness on Consumer Purchase Intention : The Mediating Effect of Perceived Quality and Brand Loyalty. *Journal of Marketing for Higher Education*, 4(1), 135–144.
- Cobb-walgren, C. J., Ruble, C. A., & Donthu, N. (1995). Brand Equity , Brand Preference , and Purchase Intent Brand Equity , Brand Preference , and Purchase Intent. *Journal of Advertising*, 24(3), 37–41. <https://doi.org/10.1080/00913367.1995.10673481>

- Das, G. (2015). Journal of Retailing and Consumer Services Linkages of retailer awareness , retailer association , retailer perceived quality and retailer loyalty with purchase intention : A study of Indian food retail brands. *Journal of Retailing and Consumer Services*, 21(3), 284–292. <https://doi.org/10.1016/j.jretconser.2014.02.005>
- Dib, H., & Alhaddad, A. (2014). The Hierarchical Relationship Between Brand Equity Dimensions. *European Scientific Journal*, 10(28), 183–194.
- Dick, A. S., & Basu, K. (1994). Customer loyalty: Toward an integrated conceptual framework. *Journal of the Academy of Marketing Science*, 22(2), 99–113. <https://doi.org/10.1177/0092070394222001>
- Ding, C. G., & Tseng, T. H. (2015). On The Relationships Among Brand Experience, Hedonic Emotions, and Brand Equity. *European Journal of MARKeting*, 49(7/8), 994–10015.
- Dodds, W. B., Monroe, K. B., & Grewal, D. (1991). Effects of Price , Brand , and Store Information on Buyers' Product Evaluations. *Journal of Marketing Research*, 28, 307–219. <https://doi.org/10.2307/3172866>
- Farida, Prabowo, H. E., Anton, & Rirahman, F. (2020). Managing Consumer-Based Marketing and Brand Equity in Higher Education Institutions (HEIs) in West Sumbawa Regency (KSB) Indonesia. *The International Journal of Business & Management*, 8(8), 62-70. <https://doi.org/10.24940/theijbm/2020/v8/i8/BM2008-015>
- Girard, T., & Pinar, M. (2021). An empirical study of the dynamic relationships between the core and supporting brand equity dimensions in higher education. *Journal of Applied Research in Higher Education*, 13(3), 710–740. <https://doi.org/10.1108/JARHE-04-2020-0097>
- Ha, H., & Park, K. (2012). Effects of perceived quality and satisfaction on brand loyalty in China : The moderating effect of customer orientation. *African Journal of Business Management*, 6(22), 6745–6753. <https://doi.org/10.5897/AJBM12.236>
- Hair, J.F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Thousand Oaks, California: Sage Publications, Inc.
- Hair, Joe F, Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152. <https://doi.org/10.2753/MTP1069-6679190202>
- Hair, Joseph F, Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hameed, F. (2013). The Effect of Advertising Spending on Brand Loyalty Mediated by Store Image , Perceived Quality and Customer Satisfaction : A Case of Hypermarkets. *Asian Journal of Business Management*, 5(1), 181–192.
- Harvey, J. A., & Busher, H. (1998). Marketing schools and consumer choice. *International Journal of Educational Management*, 10(4), 26–32.
- Haryanto, J. J., & Budi, A. S. L. (2011). Student parent perception towards consumer based brand equity. *Manajemen & Bisnis*, 10(2), 260-270.
- Herrero-Crespo, A., San Martin Gutierrez, H., & Garcia-Salmones, M. del Ma. (2016). Influence of country image on country brand equity : Application to higher education services. *International Marketing Review*, 33(5), 1–35.
- Hsu, Y., & Hsu, Y. (2008). The Influence of Brand Awareness and Experiential Quality : Taking Manufacturer Brands and Private Labels As Examples. *International Journal of Business and Commerce*, 4(6), 84–98.
- Judson, K. M., Aurand, T. W., Gorchels, L., & Gordon, G. L. (2008). Building a University Brand from Within: University Administrators' Perspectives of Internal Branding. *Services Marketing Quarterly*, 30(1), 54–68. <https://doi.org/10.1080/15332960802467722>
- Kadir, B., & Shamsudin, M. F. (2019). A Case Study Analysis of Typhidot : An Example of Market-Oriented R & D Commercialization in Malaysia. *International Journal of Financial Research*, 10(5), 75–81. <https://doi.org/10.5430/ijfr.v10n5p75>
- Kakkos, N., Trivellas, P., & Sdrolias, L. (2015). Identifying Drivers of Purchase Intention for Private Label Brands . Preliminary Evidence from Greek Consumers. *Procedia - Social and Behavioral Sciences*, 175(1), 522–528. <https://doi.org/10.1016/j.sbspro.2015.01.1232>
- Kalafatis, S., & Ledden, L. (2013). Carry-over effects in perceptions of educational value. *Studies in*

- Higher Education*, 38(10), 1540–1561. <https://doi.org/10.1080/03075079.2011.643862>
- Kaushal, V., & Ali, N. (2020). University Reputation, Brand Attachment and Brand Personality as Antecedents of Student Loyalty: A Study in Higher Education Context. *Corporate Reputation Review*, 23(4), 254–266. <https://doi.org/10.1057/s41299-019-00084-y>
- Keller, K. L. (1993). Conceptualizing, Measuring, and Managing Customer-Based Brand Equity. *Journal of Marketing*, 57(1), 1–22. <https://doi.org/10.1177/002224299305700101>
- Keller, K. L. (2008). *Strategic Brand Management: Building, Measuring, and Managing Brand Equity*. New Jersey: Pearson Education.
- Keller, K. L. (2009). Building strong brands in a modern marketing communications environment. *Journal of Marketing Communications*, 15(2–3), 139–155. <https://doi.org/10.1080/13527260902757530>
- Kemendikbud - Ministry of Education and Culture. (2020). *Statistik Perguruan Tinggi 2019 (Higher Education Statistic 2019)*. Retrieved from <https://pddikti.kemdikbud.go.id/asset/data/publikasi/Statistik%20Pendidikan%20Tinggi%20Indonesia%202019.pdf>
- Khanna, M., Jacob, I., & Chopra, A. (2019). Promoting Business School Brands Through Alumni (Past Customers)-Analyzing Factors Influencing Their Brand Resonance. *Journal of Promotion Management*, 25(3), 337–353. <https://doi.org/10.1080/10496491.2019.1557812>
- Khoshtaria, T., Datuashvili, D., & Matin, A. (2020). The impact of brand equity dimensions on university reputation: an empirical study of Georgian higher education. *Journal of Marketing for Higher Education*, 30(2), 239–255. <https://doi.org/10.1080/08841241.2020.1725955>
- Kim, S. (Sam), Choe, J. Y. (Jacey), & Petrick, J. F. (2018). Journal of Destination Marketing & Management The effect of celebrity on brand awareness, perceived quality, brand image, brand loyalty, and destination attachment to a literary festival. *Journal of Destination Marketing & Management*, 1–10. <https://doi.org/10.1016/j.jdmm.2018.03.006>
- Lacap, J. P. G., Cham, T.-H., & Lim, X.-J. (2021). The Influence of Corporate Social Responsibility on Brand Loyalty and The Mediating Effects of Brand Satisfaction and Perceived Quality The Influence of Corporate Social Responsibility on Brand Loyalty and The Mediating Effects of Brand Satisfaction and P. *International Journal of Economics and Management*, 15(1), 69–87.
- Lai, S. L., Pham, H.-H., Nguyen, H.-K. T., Nguyen, T.-C., & Le, A.-V. (2019). Toward Sustainable Overseas Mobility of Vietnamese Students: Understanding Determinants of Attitudinal and Behavioral Loyalty in Students of Higher Education. *Sustainability*, 11(2), 383. <https://doi.org/10.3390/su11020383>
- Lavidge, R. J., & Steiner, G. A. (1961). of Model Measurements Advertising Effectiveness For Predictive. *Journal of Marketing*, 25(6), 59–62.
- Liu, X., & Hu, M. Y. (2013). Umbrella brand price premiums: effects of compatibility, similarity, and portfolio size. *Journal of Product & Brand Management*, 20(1), 58–64. <https://doi.org/10.1108/10610421111108021>
- Low, G. S., & Lamb, C. W. (2000). The measurement and dimensionality of brand associations. *Journal of Product & Brand Management*, 9(6), 350–370. <https://doi.org/10.1108/10610420010356966>
- Lu, J., & Xu, Y. (2015). Chinese young consumers' brand loyalty toward sportswear products: a perspective of self-congruity. *Journal of Product & Brand Management*, 24(4), 365–376. <https://doi.org/10.1108/JPBM-05-2014-0593>
- Mann, B. J. S., & Ghuman, M. K. (2014). Scale development and validation for measuring corporate brand associations. *Journal of Brand Management*, 21(1), 43–62. <https://doi.org/10.1057/bm.2013.22>
- Maria, S., & Loureiro, C. (2013). The Effect of Perceived Benefits, Trust, Quality, Brand Awareness/Associations and Brand Loyalty on Internet Banking Brand Equity. *International Journal of Electronic Commerce Studies*, 4(2), 139–158. <https://doi.org/10.7903/ijecs.1000>
- Markovic, S., Iglesias, O., Singh, J. J., & Sierra, V. (2015). How does the Perceived Ethicality of Corporate Services Brands Influence Loyalty and Positive Word-of-Mouth? Analyzing the Roles of Empathy, Affective Commitment, and Perceived Quality. *Journal of Business Ethics*. <https://doi.org/10.1007/s10551-015-2985-6>
- Moon, B.-J., Park, W., & Choi, S.-C. (2010). Relationships among Brand Equity Components: An

- Exploratory Study of the Moderating Role of Product Type. *Journal of Global Academy of Marketing Science*, 20(1), 98–108. <https://doi.org/10.1080/12297119.2010.9707348>
- Mourad, M., Ennew, C., & Kortam, W. (2011). Brand equity in higher education. *Marketing Intelligence & Planning*, 29(4), 403–420. <https://doi.org/10.1108/02634501111138563>
- Nabila, N., Wulan, M., & Paujiah, S. (2020). Pengaruh Customer Based Brand Equity dan Kepuasan Konsumen terhadap Loyalitas Konsumen. *Jurnal Mandiri: Ilmu Pengetahuan, Seni, Dan Teknologi*, 4(2), 222-230. <https://doi.org/10.33753/mandiri.v4i2.137>
- Netemeyer, R.G., Krishnan, B., Pullig, C., Wang, G., Yagci, M., Dean, D., ... & Wirth, F. (2004). Developing and validating measures of facets of customer-based brand equity. *Journal of Business Research*, 57(2), 209-224. [http://dx.doi.org/10.1016/S0148-2963\(01\)00303-4](http://dx.doi.org/10.1016/S0148-2963(01)00303-4)
- Ng, I. C. L., & Forbes, J. (2009). Education as Service: The Understanding of University Experience Through the Service Logic. *Journal of Marketing for Higher Education*, 19(1), 38–64. <https://doi.org/10.1080/08841240902904703>
- Olsen, S. O. (2002). Comparative Evaluation and the Relationship Between Quality, Satisfaction, and Repurchase Loyalty. *Journal of the Academy of Marketing Science*, 30(3), 240–249. <https://doi.org/10.1177/0092070302303005>
- Palfreyman, D., & Tapper, T. (2016). The marketization of English higher education and the financing of tuition fees. *London Review of Education*, 14(1), 47–55. <https://doi.org/10.18546/LRE.14.1.06>
- Pappu, R., & Quester, P. G. (2016). How does brand innovativeness affect brand loyalty? *European Journal of Marketing*, 1–44. <https://doi.org/10.1108/EJM-01-2014-0020>
- Parasuraman, A. (1998). Reflections on Gaining Competitive Advantage Through Customer Value. *Journal of the Academy of Marketing Science*, 25(2), 154–161.
- Pinar, M., Girard, T., & Basfirinci, C. (2020). Examining the relationship between brand equity dimensions and university brand equity. *International Journal of Educational Management*, 34(7), 1119–1141. <https://doi.org/10.1108/IJEM-08-2019-0313>
- Pinar, M., Trapp, P., Girard, T., & Boyt, T. E. (2011). Utilizing the brand ecosystem framework in designing branding strategies for higher education. *International Journal of Educational Management*, 25(7), 724–739. <https://doi.org/10.1108/09513541111172126>
- Pinar, M., Trapp, P., Girard, T., & E. Boyt, T. (2014). University brand equity: an empirical investigation of its dimensions. *International Journal of Educational Management*, 28(6), 616–634. <https://doi.org/10.1108/IJEM-04-2013-0051>
- Puspitasari, A. F., & Jayanti, I. S. D.. (2019). Evaluation analysis of Airlangga University Faculty of Vocational Education's brand equity using customer-based brand equity concept. *TIJAB (the International Journal of Applied Business)*, 1(1), 33-46. <https://doi.org/10.20473/tijab.v1.i1.2017.33-46>
- Roskosa, A., & Stukalina, Y. (2020). Investigating Students' Perceptions of their University's Brand. *13th International Scientific Conference "Rural Environment. Education. Personality. (REEP)"*, 123–133. <https://doi.org/10.22616/REEP.2020.015>
- Roy, R., & Chau, R. (2011). Consumer-based brand equity and status-seeking motivation for a global versus local brand. *Asia Pacific Journal of Marketing and Logistics*, 23(3), 270–284. <https://doi.org/10.1108/13555851111143213>
- Saleem, S., Rahman, S. U., & Rana, M. U. (2015). Measuring customer based beverage brand equity : investigating the relationship between perceived quality, brand awareness, brand image, and brand loyalty Measuring Customer Based Beverage Brand Equity : Investigating the Relationship between Perceived. *International Journal of Marketing Studies*, 7(1), 66–77. <https://doi.org/10.5539/ijms.v7n1p66>
- Selnes, F. (1993). An Examination of The Effect of Product Performance on Brand Reputation, Satisfaction, and Loyalty. *2European Journal of Marketing*, 27(9), 19–35.
- Setkab - Sekretariat Kabinet. (2022). *President Jokowi Urges Higher Education Institutions to Allow Students to Learn Anywhere*. Retrieved from <https://setkab.go.id/en/president-jokowi-urges-higher-education-institutions-to-allow-students-to-learn-anywhere/>
- Shekhar Kumar, R., Dash, S., & Chandra Purwar, P. (2013). The nature and antecedents of brand equity and its dimensions. *Marketing Intelligence & Planning*, 31(2), 141–159. <https://doi.org/10.1108/02634501311312044>

- Sivaram, M., & Munawar, N. A. (2019). Determination Of Purchase Intention Through Brand Awareness and Perceived Quality (Case Study : For Consumers PT. Sentosa Santosa Finance Tangerang Area). *International Journal of Management Science*, 1(2), 232–246. <https://doi.org/10.31933/DIJMS>
- Su, J. (2016). Examining the relationships among the brand equity dimensions. *Asia Pacific Journal of Marketing and Logistics*, 28(3), 464–480. <https://doi.org/10.1108/APJML-01-2015-0004>
- Su, J., & Chang, A. (2018). Factors affecting college students' brand loyalty toward fast fashion. *International Journal of Retail & Distribution Management*, 46(1), 90–107. <https://doi.org/10.1108/IJRDM-01-2016-0015>
- Su, L., Swanson, S. R., & Chen, X. (2016). The effects of perceived service quality on repurchase intentions and subjective well-being of Chinese tourists : The mediating role of relationship quality. *Tourism Management*, 52, 82–95. <https://doi.org/10.1016/j.tourman.2015.06.012>
- Susilowati, E., & Sari, A. N. (2020). The Influence of Brand Awareness, Brand Association, and Perceived Quality Toward Consumers' Purchase Intention : A Case of Richeese Factory, jakarta. *Independent Journal of Management and Production*, 11(1), 39–53. <https://doi.org/10.14807/ijmp.v>
- Thompson, F. M., Newman, A., & Liu, M. (2014). The moderating effect of individual level collectivist values on brand loyalty ☆. *Journal of Business Research*, 67(11), 2437–2446. <https://doi.org/10.1016/j.jbusres.2014.02.011>
- Tran, K., Nguyen, P., Do, H., & Nguyen, L. (2020). University students' insight on brand equity. *Management Science Letters*, 10(9), 2053–2062. <https://doi.org/10.5267/j.msl.2020.2.006>
- Vacas de Carvalho, L., Azar, S. L., & Machado, J. C. (2020). Bridging the gap between brand gender and brand loyalty on social media: exploring the mediating effects. *Journal of Marketing Management*, 36(11–12), 1125–1152. <https://doi.org/10.1080/0267257X.2020.1740293>
- Valentini, C., Romenti, S., Murtarelli, G., & Pizzetti, M. (2018). Digital visual engagement: influencing purchase intentions on Instagram. *Journal of Communication Management*, 22(4), 362–381. <https://doi.org/10.1108/JCOM-01-2018-0005>
- Vukasovic, T. (2015). Managing Consumer-Based Brand Equity in Higher Education. *Managing Global Transitions*, 13(1), 75–90. <https://econpapers.repec.org/RePEc:mgt:youmgt:v:13:y:2015:i:1:p:75-90>
- Vukasović, T. (2016). An Empirical Investigation of Brand Equity: A Cross-Country Validation Analysis. *Journal of Global Marketing*, 29(5), 251–265. <https://doi.org/10.1080/08911762.2016.1194508>
- Watkins, B. A., & Gonzenbach, W. J. (2013). Assessing university brand personality through logos: an analysis of the use of academics and athletics in university branding. *Journal of Marketing for Higher Education*, 23(1), 15–33. <https://doi.org/10.1080/08841241.2013.805709>
- Xu, F., Li, Y., & Zhou, J. (2015). Brand Awareness for Entrepreneurial Hotel Chains : Perceived Quality and Brand Loyalty Brand Awareness for Entrepreneurial Hotel Chains : Perceived Quality and Brand Loyalty. *Journal of Anthropologist*, 19(3), 763–771. <https://doi.org/10.1080/09720073.2015.11891712>
- Yasin, N. M., Noor, M. N., & Mohamad, O. (2007). Does image of country-of-origin matter to brand equity? *Journal of Product and Brand Management*, 16(1), 38–48. <https://doi.org/10.1108/10610420710731142>
- Yoo, B., & Donthu, N. (2001). Developing and validating a multidimensional consumer-based brand equity scale. *Journal of Business Research*, 52, 1–14. [http://dx.doi.org/10.1016/S0148-2963\(99\)00098-3](http://dx.doi.org/10.1016/S0148-2963(99)00098-3)
- Yoo, B., Donthu, N., & Lee, S. (2000). Journal of the Academy of Marketing Science. *Journal of the Academy of Marketing Science*, 28(2), 195–211. <https://doi.org/10.1177/0092070300282002>