Investigating Antecedents and Consequences of Brand Equity in Higher Education: The Effect of Social Media Marketing

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Abstract. Brand is an essential factor in developing higher education institutions in the global era. This study examines the role of social media marketing in influencing higher education brand equity and loyalty. The research was conducted at several universities that have superior accreditation in Indonesia. This research uses primary data collected by survey techniques using questionnaires adopted from previous studies. A survey of undergraduate students was conducted using SEM analysis. The results reveal positive significant effects of social media marketing on brand experience and higher education brand equity, which positively predicted loyalty. Theoretically, the study addresses gaps in examining social media marketing as an antecedent shaping higher education brand equity. It provides empirical evidence substantiating the higher education brand equity model. Further research should investigate moderators of social media's impact and expand the equity model by examining other stakeholders like faculty, staff, and parents. Practical and research implications are discussed for managing social media strategically to foster brand equity and sustained loyalty.

Keywords: brand image, university reputation, social marketing, education marketing

1. Introduction

Globalization has positive and negative effects that affect all sectors of society, including higher education (Knight, 2008; Vukasovic, 2014). In today's complex and highly competitive market, higher education has turned to branding as a solution to current global challenges (Lomer et al., 2018). The brand is an essential factor contributing to the growth of higher education competitiveness (Valitov, 2014). Higher education is a competitive area where each brand seeks to strengthen the relationship between universities and students (Casidy, 2013). Higher education seeks to create differentiating factors contributing to its competitive advantage, reflected in the brand equity created (Panda et al., 2018). Most higher education institutions have realized that the past's simple marketing communication tools no longer work as they used to. As a result, universities are turning to branding to thrive and survive within the higher education sector (Pinar et al., 2014).

Apart from globalization and competition, higher education is a service organization different from other sectors. The service sector is relatively more challenging because it has unique characteristics than other product characteristics, dominated by experience and trust. Brands have an important role as risk reducers and can increase consumer confidence in decision-making (Erdem & Swait, 1998; Lassoued & Hobbs, 2015). In essence, brands provide signs or promises to consumers about the services to be provided, thus reducing some of the problems associated with the quality of consumer experience and trust (McDonald et al., 2001). Aside from being a risk reducer, brands are also a source of information that functions as a tool for differentiation that makes it easier for consumers to make choices (Gabbott & Hogg, 1998). Branding in higher education helps students and parents identify higher education services and can encourage them to choose these universities (Sultan & Wong, 2012).

Regarding higher education brand equity, few studies or literature discuss the development of brand equity measurements and their dimensions that can help develop successful brand strategies for higher education (Pinar et al., 2014). Pinar et al. (2011) developed two levels of building higher education brand equity, which is named a higher education brand ecosystem. The brand ecosystem is prepositioned to consist of a core level, namely the creation of core or academic values in the form of core value creation activities with the target market being students. At this level, value creation is measured by brand awareness, quality, brand associations, learning and emotional environment trust, and reputation (Girard & Pinar, 2020). The second level is supporting activities or elements of value creation such as library services, student environmental services, career development, and physical facilities (Pinar et al., 2011; 2014; Girard & Pinar, 2020). Brand equity positively contributes to higher education, such as brand loyalty (Girard & Pinar, 2020). The combination of a good brand reputation will result in positive recommendations and brand loyalty to the alma mater (Panda et al., 2018). Specific research on brand equity and its determinants in Higher Education is rarely conducted (Alam & Saeed, 2016; Mourad et al., 2019). The higher education brand equity has a particular dimension or value that is different from other organizations (Pinar et al., 2011; 2014; Girard & Pinar, 2020), so further confirmation is needed in analyzing the antecedents and consequences of each higher education brand equity value thoroughly or comprehensively. Brand equity in higher education is also shaped by experience in the learning process (Ng & Forbes, 2009). Experience related to the brand will shape the perception of brand equity. Waqas (2022) found that brand experience encourages students to perceive higher education brand equity.

Some of the limitations of existing research only discuss the linkages and contributions of aspects of brand equity, which consist of core values and supporters of loyalty (Girard & Pinar, 2020), but have yet to study the antecedents of higher education brand equity comprehensively. Higher education as a service organization requires students' involvement as a form of experience in assessing the organization. Service organizations require experience as a basis for forming perceptions of consumers (Hemmington, 2007). The values of the perceived organization are formed through the perceived service experience (Sandström, 2008), and the experience becomes a challenge for service organizations (Borsari, 2017). In their research study model, Girard and Pinar (2020) suggest the need to involve the

role of social media, which plays a role in shaping higher education brand equity. The characteristics of students belonging to Generation Z tend to be more responsive and interactive with social media (Dobre et al., 2021; Król & Zdonek, 2021). Digital marketing activities through social media have relevance in higher education branding (Pharr, 2019; Galan et al., 2015; Pringle & Fritz, 2019; Sagynbekova et al., 2021). Besides forming brand equity, social media marketing activities positively shape brand experience (Beig & Khan, 2018; Zollo et al., 2020; Koay et al., 2020). Social media marketing supports interactions involving several experiences between potential consumers and organizations (Zollo et al., 2020) and can ultimately form loyalty (Ebrahim, 2020). Substantial brand equity encourages loyalty (Nam et al., 2011; Ebrahim, 2020). Student loyalty has been empirically proven to be essential for achieving inter-university competitiveness at the global level (Susilawati et al., 2021).

Loyalty is essential for organizations because it will encourage consumers' willingness to provide positive effects in the form of e-WOM (Casidy & Wymer, 2015; Carvalho et al., 2021), which have brand relevance and play an essential role in organizational performance (Akbari et al., 2022). Gaining insight into the attitude and behavior processes determining student engagement, such as student loyalty, is valuable for universities (Buttle & Maklan, 2015). Loyal behavior can be expressed by students' intention to continue their studies and by giving positive recommendations to future students. This kind of student behavior is crucial for the survival and growth of higher education. Loyalty is important to study because it helps universities and education practitioners better understand the long-term relationship between students and universities (Snijders et al., 2020). Comprehensive studies on the antecedents and consequences of brand equity, especially in tertiary institutions, are rarely carried out. Another form of confirmation is related to different subjects in research, which will be helpful if carried out across countries that require novelty in validation, reliability, and generalization aspects (Girard & Pinar, 2020). Current research is conducted within the culturally diverse Asian context; Indonesia has a unique and multicultural culture comprising various ethnic backgrounds (Lee et al., 2020). The research aims to test the model of higher education brand equity along with its influencing factors and consequences that have met the model feasibility requirements according to the confirmatory principle of the structural equation model.

2. Literature Review

2.1. Higher Education Brand Equity

Brands' contributions to higher education carry the consequences of promises and several services along with the expected results for students. Regarding education, services are more than a simple set of tangible features but are complex benefits that satisfy customer needs (Dermol & Čater, 2013). The concept of branding, as applied to universities as non-profit service organizations, differs from branding in the commercial sector. Brands in the education sector are often equated with an institution's academic reputation. The value-centric approach inherent in branding allows an institution to direct its response to the needs and expectations of its stakeholders. Brand equity positively influences the university's reputation (Khoshtaria et al., 2020) and loyalty (Foroudi et al., 2018). Brand equity in tertiary institutions has unique characteristics and differs from other organizations. Pinar et al. (2014), using brand equity and higher education branding literature as a basis, have identified two groups of brand equity dimensions, namely core and supporters, that are relevant in creating higher education brand equity. Core value creation factors that are part of the consumer-based brand equity dimensions defined in the literature include brand awareness, perceived/perceived quality, brand associations, organizational associations, brand loyalty, brand emotions, brand trust, learning environment, and reputation.

Ng and Forbes (2009) assert that the focus point of higher education branding is experiential learning as part of core value creation. Therefore, the brand equity dimension should measure the significance of creating core value from the learning experience. In addition, the core value creation

factor is the focus of the higher education branding model proposed by Pinar et al. (2014) to develop university brands and brand equity. Based on the higher education brand equity model, the core of the university experience is embedded in learning so that academia (i.e., teaching and research) is part of core value-creation activities related to shaping students' higher education experiences. Ivy (2008) identified seven factors in students' choice of school or university. In order of importance, the factors are program (choice of primary choice), excellence (reputation), price (tuition fees), prospectus (communication by direct mail), people (interaction with faculty, staff, and other students), promotion (publicity and e-media), and premiums (a mix of offerings). Other studies have focused on the importance of facilities, the importance of emphasizing people (i.e., faculty, staff, other students, community) and process (service delivery logistics) in service marketing, and the close relationship between positioning and the concept of branding (Nicholls et al., 1995). Concerning brand positioning, research by Gray et al. (2003) has identified academic instruction and learning environment, campus life, reputation, and career prospects for graduates as the most prominent dimensions in higher education. The factors that support value creation are the factors that drive the achievement of the core factors, which are student experience with living halls, dining services, career services, physical facilities (e.g., classrooms, laboratories), and library services.

2.2. Antecedents and Consequences of Higher Education Brand Equity

Social media is an effective way for organizations to communicate with consumers and build a brand identity (Münch et al., 2021). Social media marketing activities increase interaction between brands and consumers, encouraging consumers to feel part of the community and supporting the need for social integration (Füller et al., 2011). Interactions between consumers can enhance feelings of community, which increases motivation to engage and create shared value with brands (Choi et al., 2016; Koivisto & Mattila, 2018). Social media marketing utilizes social media platforms as marketing tools to create two-way communication to enable interaction, content sharing, and information diffusion (Chang et al., 2015). Several studies have proven the role of social media in building brand equity in various industries (Seo & Park, 2018; Fanion, 2011). Interaction with customers using social media platforms as a marketing strategy will impact building brand equity (Luo et al., 2014). Brand equity is determined based on the brand knowledge structure created in consumers' minds (Alhaddad, 2015). Social media marketing plays a role in communicating brands to consumers digitally and plays a role in helping consumers perceive brand content. Social media marketing can promote products and their attributes to consumers and stimulate brand awareness and image consumers perceive (Schivinski & Dabrowski, 2016). Social media has an essential role in increasing higher education brand equity. By utilizing social media effectively, universities can increase brand awareness, strengthen brand identity and values, and increase engagement and interaction with prospective students and the higher education community (Di Virgilio & Asunka, 2019). The more effectively higher education institutions use social media marketing in communicating higher education information, the higher the perceived substantial brand equity of higher education institutions. The hypothesis proposed is:

H1: Social media marketing has a positive role in perceived higher education brand equity

Consumers or potential customers use social media to find brand information (Bambauer-Sachse & Mangold, 2011). Social media marketing significantly influences and increases brand equity through perceived experiences (Koay et al., 2020). *Brand experience* is consumers' overall impression and perception based on interactions with organizations through social media (Beig & Khan, 2018). Social media marketing activities can effectively build brand equity if consumers enjoy exploring luxury brands on social media, learn more about branded products, interact with other consumers, and form positive brand experiences (Zollo et al., 2020). Through exciting and interactive content, social media marketing can build strong engagement with prospective and active students in higher education institutions. Universities can use various content formats, such as images, videos, and stories, to convey

fun and informative messages, creating a positive experience for the audience. With the right strategy, social media marketing can be a powerful tool in shaping a positive brand experience for universities. Koay et al. (2020) proved that social media marketing is an influential factor in increasing brand equity through the experiences experienced by consumers. The higher the social media marketing activities carried out, the more significant the impact on increasing the experience value obtained from a brand. The hypothesis proposed is:

H2: Social media marketing has a positive role in brand experience

Addis and Holbrook (2001) explained that experience is essential for understanding consumer behavior. Brakus et al. (2009) confirmed brand experience as a subjective aspect, internal consumer responses, sensations, feelings, cognitions, and behavioral responses evoked by brand-related stimuli. Brand experience is also part of brand design, identity, packaging, communication, and environment. Keller (1993) views brand equity as a consumer's subjective brand evaluation. Brand equity also represents consumer value (Cleff et al., 2014). Brand equity generally depends on consumer judgment based on the experience gained. *Higher education brand equity* is an element built through the core and supporting components that are perceived based on the interaction process of students with universities (Pinar et al., 2014). *Brand experience* is a multidimensional construct of sensory, intellectual, affective, and behavioral aspects (Brakus et al., 2009). Each dimension of brand experience simultaneously interacts with the brand, manifested in student interactions with supporting facilities and the environment in learning in tertiary institutions. The higher the perceived brand experience, the stronger the perceived brand equity. The hypothesis is stated as follows:

H3: Brand experience has a positive role in perceived higher education brand equity

Higher education brand equity variables consisting of core values and supporting values have a role in shaping brand loyalty (Girard & Pinar, 2020). Ng and Forbes (2009) explain that brand equity formed by core and supporting factors are interrelated in forming brand loyalty. Loyalty indicates relationship quality (Casidy & Wymer, 2015). Higher education brand loyalty is an accumulation of satisfaction felt by students based on the service received and perceived brand components. The brand components, along with the higher education's reputation supported by physical facilities and other non-academic services, are simultaneously services that are assumed to be institutional promises; if these promises are fulfilled or according to the expectations of students, it will form higher education brand loyalty. The student experience is obtained based on supporting factors in brand equity students feel during their studies and ultimately has direct relevance for higher education loyalty (Girard & Pinar, 2020). Students' emotions are formed based on the experience of the learning process as a co-creation process, forming brand equity (Dollinger et al., 2018). The emotional aspect has a role in forming loyalty to tertiary institutions based on the experiences that students get. The stronger the perceived equity, the stronger the higher education brand loyalty. The hypothesis proposed is:
H4: Higher education brand equity has a positive role in shaping higher education loyalty

The following is a model of antecedents and consequences of higher education brand equity which is designed as a research model that will be confirmed through testing the structural equation model.
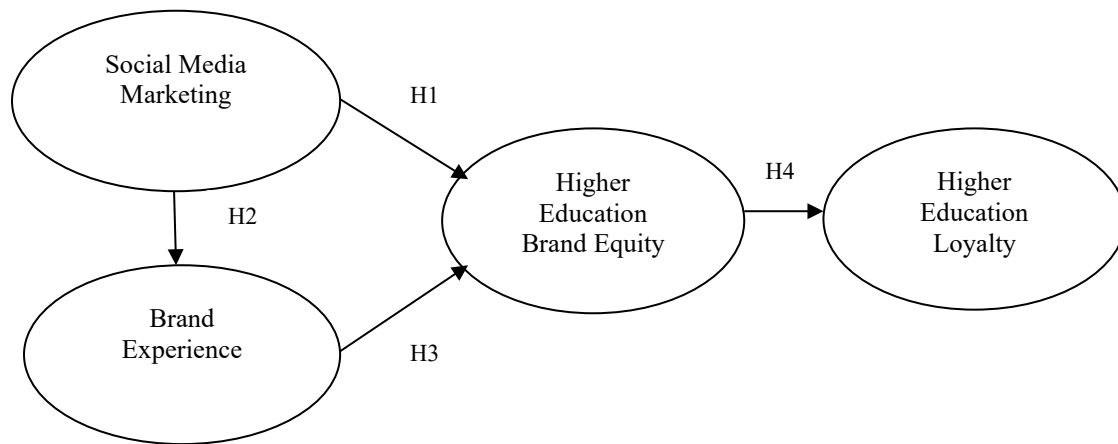
Fig 1. Research Model

3. Research Methodology

The research seeks to test a model that refers to the brand ecosystem. The paradigm in this study is oriented towards a positivistic paradigm. Variables of higher education brand equity in this study consist of the dimensions of the core value of brand equity and the supporting values (Pinar et al., 2014; Girard & Pinar, 2020). The core value of brand equity is a core aspect that builds a higher education brand as measured by perceived quality, institutional reputation, emotional environment, learning environment, brand associations, brand trust, and brand awareness. The value of supporting brand equity is an aspect of supporting higher education brand equity as measured by library services, student living, career development, and physical facilities. The loyalty variable in this research refers to students' emotional or loyal attachment to higher education. *Brand loyalty* is the extent to which an individual or group feels bound and loyal to a branded object. Loyalty is measured by student loyalty, pride in the university, pride as a university graduate, willingness to recommend, and first choice (Girard & Pinar, 2020). *Social media marketing variables* are defined as processes that utilize technology and social media channels to create, communicate, and deliver marketing offers that increase the value of company stakeholders (Tuten & Solomon, 2017; Yadav & Rahman, 2018) as measured by indicators of entertainment, interaction, customization, trends and word of mouth (Gautam & Sharma, 2017; Godey et al., 2016). The brand experience variable is defined as students' internal and subjective reactions to direct or indirect contact with universities (Meyer & Schwager, 2007). *Brand experience* is a multidimensional construct measured by sensory, intellectual, affective, and behavioral dimensions (Brakus et al., 2009).

The research population used in this research is students as higher education stakeholders who are integrated as co-creations to create higher education brand equity. The sample in this study were students at tertiary institutions with excellent accredited study programs. The sampling technique uses a purposive sampling technique with superior accreditation criteria, and the subject is actively registered as a student. The sample was determined to be undergraduate students aged 19-22 years from all fields of social sciences, humanities, and science and technology who had active social media accounts and came from state universities that had excellent accreditation. The data used are primary, namely the responses from research subjects related to social media marketing, brand experience, higher education brand equity, and higher education brand loyalty. Data was collected through a survey using a closed questionnaire which was prepared based on an adaptation of previous research (Pinar et al., 2014; Girard & Pinar, 2020; Gautam & Sharma, 2017; Godey et al., 2016; Brakus et al., 2009). Test the instrument's validity in this study using confirmatory factor analysis (CFA). Reliability testing uses composite reliability, assessed by calculating the instrument's reliability index from the analyzed SEM model. The data analysis technique in this study uses structural equation modeling.

4. Result and Discussion

4.1. Data Normality Test
SEM testing using the ML (maximum likelihood) method requires that the data be normally distributed. Data is considered normal if it has a critical value below the z value. The z value for a 1% probability is ±2.58. Based on the normality test data, it is known that all data derived from manifest variable data has a critical ratio or a critical value below ±2.58.

4.2. Instrument Testing
Overall, the factor loading value of each observed variable and composite reliability shows that all observed variables from latent variables are valid and reliable, meeting the criteria of a methodological measurement model. The results show that the factor loading of each variable and the value of the composite reliability and variance extraction of each variable are as follows in Table 1.

Table 1. Factor loading coefficient and reliability

Variable	λ_i	Composite reliability
Social Media Marketing (SM)		0.724
SMM1	0.717	
SMM2	0.860	
SMM3	0.876	
SMM4	0.786	
SMM5	0.851	
Brand Experience (BE)		0.760
BE1	0.778	
BE2	0.913	
BE3	0.769	
BE4	0.872	
Higher Education Brand Equity (BEQ)		0.709
BEQ1	0.844	
BEQ 2	0.807	
BEQ3	0.882	
BEQ4	0.897	
BEQ5	0.861	
BEQ6	0.858	
BEQ7	0.781	
BEQ8	0.839	
BEQ9	0.806	
BEQ10	0.855	
BEQ11	0.825	
Higher Education Loyalty (HEL)		0.702
HEL1	0.829	
HEL2	0.817	
HEL3	0.826	
HEL4	0.837	
HEL5	0.879	

The validity test results using factor analysis show that the factor loading value is above 0.4, so all items in the research variable are valid. The factor loading value for social media marketing ranges from 0.717-0.876, the brand experience factor loading value ranges from 0.769-0.913, the higher education brand equity factor loading value ranges from 0.781-0.897, and the value of higher education loyalty ranges from 0.817-0.879. The composite reliability value of social media marketing is 0.724, and brand experience is 0.760, higher education brand equity is 0.709f, and higher education loyalty is 0.702. According to Nunnally (1981), the recommended reliability coefficient value is at least 0.6.

4.3. Model Fit Test

The results of the model fit test using chi-square, CMIN/DF, GFI, AGFI, RMSEA, TLI and CFI are summarized as follows.

Table 2. Results of the Goodness of Fit Measurement Model

Index	Cut off Value	Result	Model Evaluation
Chi square	Close to 0	87.137	Good
Probability	≥ 0.05	0.117	Good
CMIN/DF	≤ 2.00	0.187	Good
GFI	≥ 0.90	0.913	Good
RMSEA	≤ 0.08	0.065	Good
AGFI	≥ 0.90	0.902	Good
TLI	≥ 0.90	0.916	Good
CFI	≥ 0.90	0.962	Good

Table 2 shows that the planned model is an overall fit because the results are good after testing the suitability of the GFI, AGFI, TLI, and CFI values compared to the reference values of the structural model equation. The p-value, CMIN/df (relative χ2), and the RMSEA value have good assessment criteria compared to the cut-off value with the help of chi-correct. The Chi-square value with a probability of $0.117 > 0.05$ indicates the overall goodness-of-fit model. This result means that a model that describes the effect of social media marketing and brand experience on higher education brand equity and its impact on higher education loyalty fits with empirical data in the field.

4.4. Model Causality Test

The results of the model causality test in this study are complete as follows:
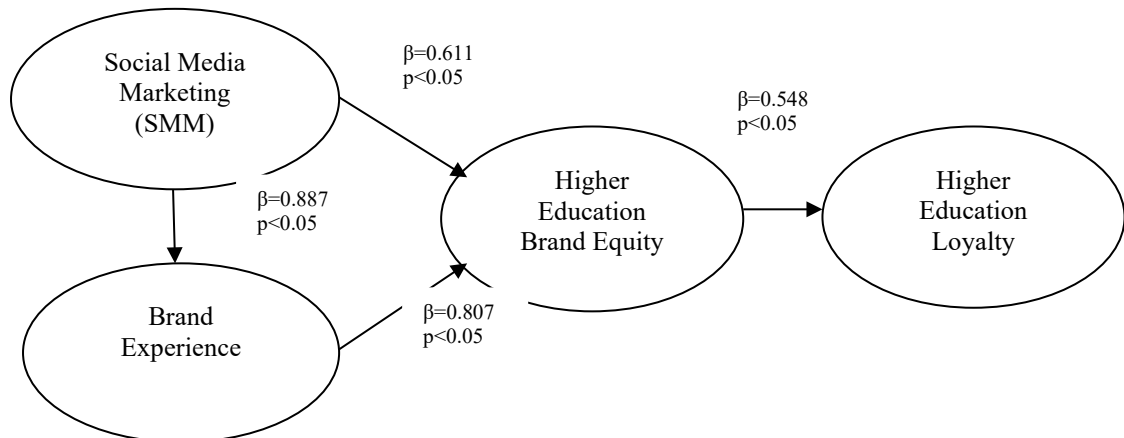

Fig 2. Path Model

The results of regression weights between latent variables or the estimation of loading factors or lambda values can be used to analyze variable causality tests. Based on the significance of the CR (Critical Ratio) value with a probability value (p) = 0.05. The results of the causality test regression weights are as follows in Table 3.

Table 3. Evaluation of the Causality Test Regression Weight

Variable			Estimate	S.E.	C.R.	P
Higher education brand equity	<---	Social media marketing	.611	.254	5.812	***
Brand experience	<---	Social media marketing	.887	.154	8.872	***
Higher education brand equity	<---	Brand experience	.807	.259	5.312	***
Higher education loyality	<---	Higher education brand equity	.548	.065	4.748	***

***:0,000

Further explanation of the regression weight evaluation analysis can be described and explained that the social media marketing variable with an estimated coefficient value of 0.611 significantly influences higher education brand equity with a probability value of ≤ 0.05. The social media marketing variable, with an estimated coefficient value of 0.887, significantly influences higher education brand equity with a probability value of ≤ 0.05. The brand experience variable with an estimated coefficient value of 0.807 significantly influences higher education brand equity with a probability value of ≤ 0.05. The higher education brand equity variable with an estimated coefficient value of 0.548 significantly influences higher education loyalty with a probability value of ≤ 0.05. The magnitude of the variable contribution simultaneously to other variables is summarized in Table 4 as follows.

Table 4. Coefficient of Determination

Independent	Dependent	Effective contribution
Social media marketing Brand experience	Higher education brand equity	38.9%
Social media marketing Brand experience Higher education brand equity	Higher education loyality	57.7%

Based on Table 4 above, social media marketing and brand experience variables have a role of 38.7% in explaining higher education brand equity. Social media marketing variables, brand experience, and higher education brand equity have a role of 57.7% in explaining higher education loyalty.

4.5. Discussion

Social media marketing plays an essential role in connecting users with similar backgrounds and interests through social networking sites. Marketers use social media communications to interact with customers, influence consumer perceptions of services and products, disseminate important information, and obtain feedback from customers or potential consumers (Brodie et al., 2013). One of the goals of social media marketing is to increase user interactivity on the platform by stimulating users to share content (Ashley & Tuten, 2015). Based on the coefficient values from data analysis, it is known that social media marketing has a more dominant role in shaping experience and its impact on brand equity and loyalty. This study is based on the fact that shared content can generate positive consumer experiences. Consumers who have hedonic motivation with natural needs will be stimulated based on emotional, sensory, and social (Addis & Holbrook, 2001). The interaction between brands and consumers can occur in different ways.

Organizations use various strategies to reach customers using a multichannel marketing strategy

(Hauser, 2007). A multichannel strategy aims to build long-term customer relationships by providing customer service and support through the correct focus points of interaction. Social media marketing is recognized as a new, effective way of interaction between consumers and brands in the digital era. Fellow online communities on social media can interact by updating information needed by fellow users and institutions (Fischer & Reuber, 2011). The role of social media marketing has been proven to be able to shape brand equity in a variety of different industries (Seo & Park, 2018; Fanion, 2011). Universities must plan a mature strategy and ensure the responsible use of social media to build substantial brand equity. Social media is an effective platform for increasing higher education brand awareness. Universities can introduce competitive values and advantages to prospective students and the broader community through various content such as images, videos, and text. With the right content strategy, social media marketing can help create a positive brand image and communicate universities' core and supporting values. Social media allows tertiary institutions to interact directly with prospective students, students, and alumni so that it can become the basis for evaluation for users of tertiary services. Active and responsive interactions can increase the involvement of the college community and create positive experiences, which in turn can increase loyalty to the university brand. Social media is an effective medium organisations use to communicate with consumers and build brand identity (Münch et al., 2021).

Social media marketing utilizes social media platforms as marketing tools to create two-way communication to enable interaction, content sharing, and information diffusion (Chang et al., 2015). The interaction between organizations and customers using social media platforms as a marketing strategy has relevance in building brand equity (Luo et al., 2014). Brand equity is determined based on the brand knowledge structure created in consumers' minds (Alhaddad, 2015). Social media marketing plays the role of communicating brands to consumers digitally. Social media marketing can promote products and their attributes to consumers and stimulate brand awareness and image consumers perceive (Schivinski & Dabrowski, 2016). The more effectively higher education institutions use social media marketing in communicating higher education information, the higher the perceived substantial brand equity of higher education institutions. Another role of social media marketing is to increase brand equity through perceived experiences (Koay et al., 2020). Social media is an effective medium in shaping the experience felt by consumers based on consumer interactions with organizations (Beig & Khan, 2018), as well as higher education institutions that can build a brand experience that students or prospective students feel through social media marketing activities. Experience is formed based on interactions obtained through social media and plays a role in shaping the perception of the image of higher education institutions. Addis and Holbrook (2001) explained that experience is essential for understanding consumer behavior. Brakus et al. (2009) confirmed brand experience as a subjective aspect, internal consumer responses, sensations, feelings, cognitions, and behavioral responses evoked by brand-related stimuli. Brand experience is also part of brand design, identity, packaging, communication, and environment.

Keller (1993) views brand equity as a consumer's subjective brand evaluation. Brand equity also represents consumer value (Cleff et al., 2014). Brand equity generally depends on consumer judgment based on the experience gained. *Higher education brand equity* is an element built through the core and supporting components that are perceived based on the interaction process of students with universities (Pinar et al., 2014). *Brand experience* is a multidimensional construct of sensory, intellectual, affective, and behavioral aspects (Brakus et al., 2009). Each dimension simultaneously interacts with the brand, manifested in student interactions with supporting facilities and the higher education learning environment. The more brand experience that is felt, the stronger the brand equity students perceive. A positive brand experience can help build a positive brand image for higher education. The positive experiences felt by students in various aspects, such as quality teaching, academic support, a comfortable campus environment, and various academic and non-academic activities, give a positive impression of the higher education brand as a whole. Positive brand experiences can create long-term

effects on higher education brand equity. Suppose students are satisfied with their experiences during their studies. In that case, they are likelier to become alums who contribute positively to higher education through donations, alum events, or career support for prospective new students. Universities must be committed to providing a positive brand experience and ensuring that the entire college community is involved in supporting and promoting a strong brand image.

Substantial brand equity increases brand loyalty in the long term (Taylor et al., 2004; Hariharan et al., 2018). One key factor influencing higher education loyalty is brand equity built by universities (Girard & Pinar, 2020). Brand equity reflects the positive image, perception, and values associated with the higher education brand. Brand equity can strengthen a college's identity and create affinity among students and alumni through emotional attachment. Students proud to be part of a particular tertiary institution tend to have higher loyalty and reconsider that college when choosing to pursue postgraduate studies or contribute as alumni to their alma mater. By creating emotional bonds, strengthening identity and affinity, increasing student satisfaction, reducing student churn rates, and increasing alumni support, higher education brand equity can positively impact maintaining and increasing higher education loyalty. Higher education brand equity variables consisting of core values and supporting values have a role in shaping brand loyalty (Girard & Pinar, 2020) in the educational environment. Ng and Forbes (2009) explain that brand equity formed by core and supporting factors are interrelated in forming brand loyalty. Loyalty is a precise measure of the relationship quality between consumers and organizations (Casidy & Wymer, 2015). Higher education brand loyalty is an accumulation of satisfaction felt by students based on the service received and the long-term perceived brand components. Brand components that physical facilities and other non-academic services support are simultaneously services considered institutional promises; if the promise is fulfilled or follows student expectations, an emotional attachment of students to the college will be formed. The student experience is obtained based on supporting factors in brand equity felt by students while undergoing studies and ultimately has direct relevance in forming higher education loyalty (Girard & Pinar, 2020). Students' emotions are formed based on the experience of the learning process as a co-creation process, forming brand equity (Dollinger et al., 2018). The emotional aspect has a role in forming loyalty to higher education based on the experience gained by students on the core and supporting factors of the higher education brand equity.

5. Conclusion

This study generates crucial empirical evidence supporting the positive effects of social media marketing on brand experience, brand equity, and loyalty in higher education. The findings have significant practical implications for leveraging social media to build brand equity and loyalty. Based on the findings and conclusions in this study, several practical recommendations can be given for universities to increase higher education brand equity through social media marketing activities involving several stakeholders such as students as input, teaching and educational staff as part of the process, and alums as part of the output at the college level. Theoretically, it enriches higher education brand equity literature by substantiating social media marketing's role as an important antecedent. Some limitations related to the subject are only based on student expectations as input. At the same time, the value co-creation process in the brand ecosystem model requires other stakeholders in the higher education environment (Ostrom et al., 2005), such as teaching staff, alums, and parents (Pinar et al. al., 2011; Girard & Pinar, 2020). Students' decisions are primarily determined by communication culture patterns with the parents (Budiman & Wijaya, 2016). Further research can build on these findings by delving deeper into how contextual factors like culture may moderate social media's effects on brand equity and by expanding the equity model to examine other internal stakeholders. As social media evolves rapidly, studies must keep pace by looking at newer forms like virtual communities. The research provides a solid foundation for advanced scholarship and practice on strategically harnessing social media for higher education branding.

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