Contents lists available at Science-Gate



International Journal of Advanced and Applied Sciences

Journal homepage: http://www.science-gate.com/IJAAS.html



Enhancing brand equity through social media marketing: A quantitative analysis of health and beauty product brands among Thai entrepreneurs



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ARTICLE INFO

Article history: Received 21 May 2024 Received in revised form 12 September 2024 Accepted 1 November 2024 Keywords: Brand equity Social media marketing Brand loyalty Brand image Perceived quality

ABSTRACT

This study aims to improve the brand equity of online health and beauty products among Thai entrepreneurs to enhance their competitiveness in global markets. Using elements from the Rough Set Delphi technique, the research examines the relationships between nine key components that contribute to building brand equity, analyzed through confirmatory factor analysis. A quantitative approach was used, collecting data from 600 manufacturers who utilize online social media platforms for marketing and distribution. The results show that the validated model includes all nine components, which closely align with real-world data. These components include marketing factors, social media marketing activity, brand association, perceived quality, brand awareness, brand image, brand trust, and brand loyalty, all of which play a critical role in developing brand equity. The study provides practical insights for health and beauty product manufacturers to strengthen brand sustainability, recommending a focus on understanding all nine components, especially social media marketing factors, brand loyalty, and brand image, to increase brand equity. Recognizing the importance of the other components is also essential for long-term brand growth.

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1. Introduction

The health and beauty industry has experienced remarkable growth in recent years, driven by increasing consumer interest in personal well-being across diverse age groups. This trend has been significantly amplified by the proliferation of digital platforms and social media, which have revolutionized how consumers access and interact with health and beauty product information (Seo and Park, 2018; Godey et al., 2016). The availability of vast amounts of information through social media has not only empowered consumers but also intensified competition among businesses in this sector, necessitating innovative strategies to capture and retain customer attention (Koay et al., 2020).

In the context of Thailand's online health and beauty market, the industry faces unique challenges and opportunities. The rapid digitalization of the Thai economy has led to a surge in e-commerce activities, with the health and beauty sector

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emerging as a primary beneficiary (Wang et al., 2021). However, this growth has also brought about increased competition and challenges related to product quality perceptions, necessitating a strong focus on brand equity (Oh, 2000; Dubbelink et al., 2021).

The concept of brand equity, first popularized by Aaker (1991) and Keller (1993), has become increasingly crucial in the digital age (Yang et al., 2022). In the online health and beauty industry, where physical interaction with products is limited, brand equity plays a pivotal role in influencing consumer decisions. Social media marketing activities have emerged as a key tool for enhancing brand equity and engaging consumers in this digital landscape (Keller and Swaminathan, 2020; Aaker, 1991).

Regulatory bodies such as the Food and Drug Administration (FDA) play a critical role in monitoring health and beauty products, revoking licenses for false advertising and counterfeit products that can significantly harm brand value (Yang et al., 2022). This regulatory environment underscores the importance of creating genuine brand value and understanding consumer behavior sustainability for business and economic development in Thailand (Keller and Swaminathan, 2020). To remain competitive, businesses must continuously assess consumer perceptions of brand

https://doi.org/10.21833/ijaas.2024.11.016

value and behavior. This understanding is crucial for predicting future purchasing behavior and informing strategic planning and communication (Oh, 2000; Sağtaş, 2022). The role of social media marketing in this context cannot be overstated, as it has become a primary channel for enhancing brand equity and engaging consumers (Wang et al., 2021; Oh, 2000).

Despite the recognized importance of brand value creation and consumer behavior, there is limited research on the specific impact of social media marketing activities on brand equity in Thailand's online health and beauty market. Existing studies focus on the general impact of social media on brand equity (Seo and Park, 2018; Godey et al., 2016) or consumer behavior in the health and beauty industry (Kim and Ko, 2012) but fail to provide a comprehensive analysis of the interplay between these factors in the Thai context.

This study aims to bridge this gap by examining the relationship between social media marketing activities and brand equity in Thailand's online health and beauty sector. Specifically, we seek to answer the following research questions:

- 1. What is the impact of social media marketing activities on brand awareness in the online health and beauty business in Thailand?
- 2. How do social media marketing activities influence brand image in the online health and beauty business in Thailand?
- 3. What is the relationship between social media marketing activities and brand loyalty in the online health and beauty business in Thailand?
- 4. How do social media marketing activities affect perceived quality in the online health and beauty business in Thailand?

By addressing these questions, this study aims to provide a comprehensive understanding of the role of social media marketing in building brand equity within the specific context of Thailand's online health and beauty industry. The findings will offer valuable insights for businesses to develop effective social media marketing strategies that enhance brand equity and meet consumer needs in this rapidly evolving market.

2. Literature review

Brand equity, a concept that has gained significant attention in marketing literature, refers to the added value that a brand name brings to a product or service (Yang et al., 2022). It encompasses various dimensions that collectively contribute to a brand's strength and value in the market. In the context of the online health and beauty industry, brand equity plays a crucial role in influencing consumer perceptions and purchase decisions.

Aaker (1991) identified four main components of brand equity: brand awareness, brand associations, perceived quality, and brand loyalty (Yang et al., 2022). Keller (1993) expanded on this idea by introducing the customer-based brand equity model, which highlights how brand knowledge influences consumer reactions to marketing efforts.

Brand awareness refers to the ability of consumers to recognize or recall a brand within a given product category (Yang et al., 2022). In the online health and beauty industry, where consumers are often overwhelmed with choices, brand awareness plays a critical role in influencing purchase decisions (Barreda et al., 2015). Social media platforms have become instrumental in enhancing brand awareness by providing businesses with opportunities to increase their visibility and engage with consumers (Homburg et al., 2010).

Brand image encompasses the perceptions and associations that consumers hold about a brand. In the health and beauty industry, where product efficacy and safety are paramount concerns, a positive brand image can significantly influence consumer trust and purchase intentions (Abbasi et al., 2014). Social media marketing activities can help shape and reinforce brand image by allowing businesses to communicate their brand values and personality consistently across various platforms.

Brand loyalty reflects the attachment that a customer has to a brand (Yang et al., 2022). In the highly competitive online health and beauty market, fostering brand loyalty is crucial for long-term success (Keller and Swaminathan, 2020). Social media platforms offer unique opportunities for businesses to build and maintain relationships with consumers, thereby enhancing brand loyalty (Kladou and Kehagias, 2014).

Perceived quality refers to the consumer's judgment about a product's overall excellence or superiority (Oliveira et al., 2020). In the health and beauty industry, where product claims can be difficult to verify without direct experience, perceived quality plays a significant role in shaping consumer attitudes and purchase intentions (Abbasi et al., 2014). Social media marketing activities can influence perceived quality by showcasing product benefits, sharing customer testimonials, and providing detailed product information.

Social media marketing activities refer to the use of social media platforms and websites to promote a product or service (Manthiou et al., 2014). These activities have become increasingly important in the digital age, particularly in the context of the online health and beauty industry (Keller and Swaminathan, 2020).

Kim and Ko (2012) identified five key dimensions of social media marketing activities: Entertainment, interaction, trendiness, customization, and word of mouth (Bilgili and Ozkul, 2015). These dimensions collectively contribute to the effectiveness of social media marketing in building brand equity.

The entertainment aspect of social media marketing activities refers to the fun and enjoyment that consumers derive from engaging with brand content on social media platforms (Bilgili and Ozkul, 2015). In the health and beauty industry, entertaining content can help capture consumer attention and create positive brand associations.

Interaction involves the communication and exchange between information brands and consumers on social media platforms (Bilgili and Ozkul, 2015). For online health and beauty businesses, interactive social media activities can help build relationships with consumers, address their concerns, and provide personalized recommendations (Keller and Swaminathan, 2020).

Trendiness refers to the provision of the latest and most up-to-date information about products or services (Bilgili and Ozkul, 2015). In the fast-paced health and beauty industry, where new products and trends emerge rapidly, staying current is crucial for maintaining brand relevance.

Customization involves tailoring social media content and experiences to individual consumer preferences (Bilgili and Ozkul, 2015). For online health and beauty businesses, customization can enhance the relevance of marketing messages and improve consumer engagement (Keller and Swaminathan, 2020).

Word of mouth on social media platforms refers to the propensity of consumers to share information about brands with their networks (Bilgili and Ozkul, 2015). In the health and beauty industry, where personal recommendations play a significant role in purchase decisions, facilitating positive word of mouth through social media is crucial for brand success.

2.1. Social media marketing and brand equity in the online health and beauty industry

The relationship between social media marketing activities and brand equity has been explored in various contexts, but research specific to the online health and beauty industry, particularly in Thailand, remains limited. Studies have shown that social media marketing activities can positively influence brand equity dimensions across different industries (Keller and Swaminathan, 2020).

In the context of the health and beauty industry, social media platforms offer unique opportunities for brands to showcase product benefits, share customer testimonials, and provide detailed information about ingredients and product usage (Abbasi et al., 2014). These activities can enhance brand awareness, improve brand image, foster brand loyalty, and positively influence perceived quality.

However, the effectiveness of social media marketing activities in building brand equity may vary depending on cultural context and industryspecific factors (Theresia et al., 2018). Thailand's online health and beauty market presents a unique setting due to its rapid growth, intense competition, and distinctive consumer behaviors (Wang et al., 2021; Dubbelink et al., 2021).

This study aims to fill a gap in the research by exploring how social media marketing activities affect different aspects of brand equity in Thailand's online health and beauty industry. It seeks to offer useful insights for both academics and practitioners to better understand the role of social media marketing in creating strong brands in this specific context.

2.2. Conceptual framework

Marketing factors are critical in shaping brand equity by influencing consumer perceptions and preferences. This encompasses various marketing strategies and tactics employed by online health and beauty businesses to promote their products, attract customers, and differentiate themselves from competitors (Godey et al., 2016). Effective marketing campaigns, promotional activities, and customer engagement initiatives significantly impact brand equity (Seo and Park, 2018). In the digital era, social media marketing activities have become an essential component, especially for online businesses.

Social media platforms provide a powerful tool for health and beauty brands to connect with their target audience, build brand awareness, and foster customer relationships (Barreda et al., 2015). By leveraging social media marketing activities, such as content creation, influencer collaborations, and interactive campaigns, businesses can enhance brand visibility, engagement, and, ultimately, brand equity (Homburg et al., 2010).

Brand association refers to the emotional and cognitive connections that consumers form with a brand. These associations can be based on various factors, such as product attributes, brand personality, user experiences, and brand-related memories (Abbasi et al., 2014). Strong and positive brand associations contribute to increased brand equity by influencing consumer perceptions, preferences, and loyalty (Kladou and Kehagias, 2014).

Brand loyalty is a key indicator of brand equity, reflecting the level of attachment and commitment that consumers have towards a brand (Oliveira et al., 2020). Loyal customers are more likely to make repeat purchases, recommend the brand to others, and remain engaged with the brand over time (Manthiou et al., 2014). Online health and beauty businesses can foster brand loyalty through exceptional product quality, personalized customer service, rewards programs, and continuous innovation (Bilgili and Ozkul, 2015).

Perceived quality refers to consumers' subjective evaluations of a brand's products or services, encompassing factors such as performance, reliability, aesthetics, and overall value for money (Theresia et al., 2018). Higher perceived quality contributes to increased brand equity, as consumers are more likely to trust and prefer brands that consistently deliver superior quality (Sikka and Kumar, 2024).

Brand awareness represents the extent to which consumers recognize and recall a brand within a given product category. High brand awareness is crucial for online health and beauty businesses, as it increases the likelihood of consumers considering and choosing their products (Puspaningrum, 2020). Effective marketing strategies, such as search engine optimization, social media presence, and influencer partnerships, can help enhance brand awareness and visibility (Putri, 2022).

The brand image encapsulates the overall perceptions and associations that consumers hold about a brand, including elements such as brand personality, visual identity, and reputation. A strong and positive brand image can differentiate a brand from its competitors, evoke positive emotions, and influence consumer decision-making (Peng et al., 2021). Online health and beauty businesses can shape their brand image through consistent branding, compelling storytelling, and authentic customer engagement (Anees-Ur-Rehman et al., 2018).

Brand trust is a fundamental component of brand equity, reflecting the level of confidence and reliability that consumers place in a brand (Rahmah et al., 2018). Trust is particularly important in the online health and beauty industry, where consumers may have concerns about product safety, effectiveness, and authenticity (Lestari and Siswantini, 2019). Building brand trust requires transparency, consistent quality, responsive customer service, and a genuine commitment to customer well-being (Kalra et al., 2023).

Brand equity represents the overall value and strength of a brand in the minds of consumers, reflecting the brand's ability to generate positive associations, loyalty, perceived quality, awareness, image, and trust (Sitompul et al., 2021). Online health and beauty businesses with strong brand equity enjoy competitive advantages, such as premium pricing, customer loyalty, and market share (Azlina et al., 2018).

The conceptual framework presented in Fig. 1 highlights the interconnectedness and synergy among these nine components in driving brand equity. By strategically focusing on each element and leveraging their collective impact, online health and beauty businesses in Thailand can build and sustain strong brand equity in the competitive digital marketplace. This framework serves as a guiding tool for businesses to assess their current brand equity status, identify areas for improvement, and develop targeted strategies to enhance their brand's value and competitiveness.

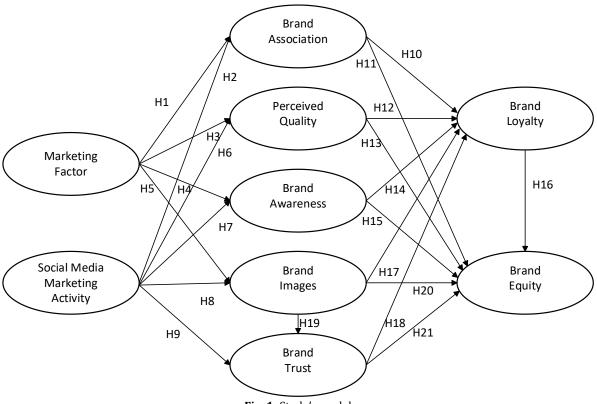


Fig. 1: Study's model

3. Methodology

This study employed a quantitative research design to examine the impact of social media marketing activities on brand equity in Thailand's online health and beauty industry. A cross-sectional survey approach was adopted to collect data from a large sample of respondents at a single point in time, allowing for the analysis of relationships between variables (Sikka and Kumar, 2024). This design is particularly suitable for capturing the current state of the rapidly evolving online health and beauty market in Thailand. The target population for this study consisted of health and beauty product entrepreneurs, specifically those involved in online cosmetics and supplement businesses in Thailand. Given the challenges in determining the exact size of this population, we employed a purposive sampling method to select participants who met specific criteria relevant to our research objectives. The sample size was determined based on guidelines proposed by Kline (2016) for Causal Structural Models with Latent Variables. These guidelines suggest that the optimal sample size should be 10-20 respondents per observed variable and must exceed 200, as indicated by Hoelter statistics (Hoelter, 1983). Given that our study included 46 observable variables, we calculated a minimum acceptable sample size of 460 participants. To account for potential data errors and ensure the robustness of our analysis, we increased the target sample size to 600 participants.

Data collection was conducted over a two-month period from June to August 2022 using an online questionnaire. The questionnaire was carefully constructed to assess brand equity and capture a comprehensive range of responses reflecting the various factors entrepreneurs consider when building sustainable brand equity for their online health and beauty businesses in Thailand. To ensure the relevance of the data, we included a crucial screening question: "Have you ever had a brand of health and beauty business online before?" Respondents who answered "no" to this question were excluded from the analysis.

During the data collection period, 650 respondents completed the questionnaire. After a thorough review of the responses, 600 complete and valid questionnaires were selected for statistical analysis, meeting our target sample size and enhancing the reliability and generalizability of our findings.

The questionnaire was developed based on established scales from previous literature, adapted to fit the context of Thailand's online health and beauty industry. The measures for each construct are described below.

Social media marketing activities (SMMA) can be measured using the scale developed by Kim and Ko (2012) (Bilgili and Ozkul, 2015), which includes five dimensions: entertainment, interaction, trendiness, customization, and word of mouth. Each dimension was measured using three items on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Sample items include "The social media of X brand is interesting" (entertainment) and "I can exchange opinions with other customers on the social media of X brand" (interaction).

Brand awareness, brand image, brand loyalty, and perceived quality were measured using established scales. Brand awareness was assessed with four items adapted from Yoo et al. (2000) (Puspaningrum, 2020), such as "I can recognize X brand among other competing brands." The brand image was evaluated with five items from Keller (1993) and Aaker (1996) (Putri, 2022), including "X brand has a differentiated image from other brands." Brand loyalty was measured with four items by Yoo et al. (2000) (Puspaningrum, 2020), such as "I consider myself loyal to X brand." Perceived quality was assessed using five items adapted from Aaker (1996) and Yoo et al. (2000) (Putri, 2022; Puspaningrum, 2020), including "The likely quality of X brand is extremely high." All items were rated on a 5-point Likert scale.

To account for potential confounding factors, we included several control variables in our analysis: Age, gender, education level, business type, and duration of business operation.

Data analysis was conducted using IBM SPSS Statistics 26 and AMOS 26. The analysis process involved several steps. Descriptive statistics were computed to summarize the sample characteristics and provide an overview of the data distribution.

Confirmatory Factor Analysis (CFA) was performed to assess the measurement model's validity and reliability. Before conducting the CFA, we tested several assumptions:

- Multivariate normality was assessed using Mardia's coefficient.
- Linearity was examined through scatterplots of variable pairs.
- Absence of multicollinearity was confirmed using Variance Inflation Factors (VIF) (Peng et al., 2021).
- Absence of outliers was checked using the Mahalanobis distance (Anees-Ur-Rehman et al., 2018).

The CFA was conducted using maximum likelihood estimation. Model fit was evaluated using multiple indices: Chi-square/df ratio (acceptable if<3), Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) (both acceptable if>0.90), and Root Mean Square Error of Approximation (RMSEA) (acceptable if<0.08) (Rahmah et al., 2018).

Convergent validity was assessed by examining factor loadings (should exceed 0.7), Average Variance Extracted (AVE) (should exceed 0.5), and Composite Reliability (CR) (should exceed 0.7) (Lestari and Siswantini, 2019). Discriminant validity was evaluated by comparing the square root of AVE with inter-construct correlations (Kalra et al., 2023).

Structural Equation Modeling (SEM) was employed to test the hypothesized relationships between social media marketing activities and brand equity dimensions. The structural model was evaluated using the same fit indices as the measurement model.

Multi-group analysis was conducted to examine the potential moderating effects of demographic variables on the relationships between social media marketing activities and brand equity dimensions.

This comprehensive analytical approach ensures a thorough examination of the data and provides robust evidence for the relationships between the variables of interest.

4. Results

The final sample of 600 respondents exhibited diverse characteristics, providing a comprehensive representation of Thailand's online health and beauty entrepreneurs. Table 1 presents a detailed breakdown of the sample demographics.

Variable	y and proportion	Percentage				
Vallable	Quantity	reiteillage				
	Sex	51.00				
Male	308	51.30				
Female	204	34.00				
Unidentified	88	14.70				
Position						
Owner	205	34.20				
Company partner	395	65.80				
Education						
Undergraduate	22	3.70				
Bachelor's degree	417	69.50				
Postgraduate	161	26.80				
Ту	pe of establishmen	t				
Single owner	124	20.70				
Limited company	124	20.70				
Limited	264	44.00				
partnership	204	44.00				
Limited liability	00	14.70				
partnership	88	14.70				
The c	luration of operati	ons				
Less than 2 years	22	3.70				
3 – 5 years	201	33.50				
More than 5 years	377	62.80				

The gender distribution of participants showed that the majority were male (51.30%, n=308), followed by female participants (34.00%, n=204). A smaller group (14.70%, n=88) chose not to disclose their gender. This distribution highlights the gender dynamics in Thailand's online health and beauty entrepreneurship.

The educational background of participants indicated a high level of formal education among online health and beauty entrepreneurs in Thailand. Most participants (69.50%, n=417) held a bachelor's degree, while a significant portion (26.80%, n=161) had postgraduate qualifications. Only a small minority (3.70%, n=22) had education levels below a bachelor's degree, suggesting that higher education plays an important role in this sector.

Regarding their roles in their companies, the majority of participants (65.80%, n=395) were business partners, reflecting a trend toward collaborative or shared ownership structures. The remaining participants (34.20%, n=205) were sole business owners. This breakdown provides useful insights into the organizational structure of online health and beauty businesses in Thailand.

The survey also revealed diverse business establishment types. Limited partnerships were the most common (44.00%, n=264), followed by single ownership and limited companies (both 20.70%, n=124 each), and limited liability partnerships (14.70%, n=88). This variety demonstrates the complex and varied nature of business structures in the industry.

Finally, the duration of business operations provided insights into the industry's maturity. Most businesses (62.80%, n=377) had been operating for over 5 years, indicating strong establishment and sustainability. Another sizable group (33.50%, n=201) had been running for 3–5 years, while only a small proportion (3.70%, n=22) were newer, having operated for less than 2 years. These findings reflect a mature market with both established businesses and emerging players. The CFA results, presented in

Fig. 2 and Table 2, provide strong support for the validity and reliability of the measurement model.

The model fit indices demonstrated a good fit to the data:

- Chi-square/df ratio: 1.256 (below the threshold of 3)
- Comparative Fit Index (CFI): 0.992 (exceeding the 0.90 threshold)
- Tucker-Lewis Index (TLI): 0.991 (exceeding the 0.90 threshold)
- Root Mean Square Error of Approximation (RMSEA): 0.021 (below the 0.08 threshold)
- Adjusted Goodness of Fit Index (AGFI): 0.909 (exceeding the 0.90 threshold)
- Goodness of Fit Index (GFI): 0.940 (exceeding the 0.90 threshold)

These indices collectively suggest that the proposed model effectively captures the relationships among the variables and provides a good representation of the data.

The CFA results in Table 2 provide strong evidence for the validity and reliability of the measurement model:

- Factor loadings: All observed variables demonstrated factor loadings ranging from 0.70 to 0.88, exceeding the recommended threshold of 0.70 and indicating strong relationships with their respective latent constructs.
- Average variance extracted (AVE): AVE values for all constructs ranged from 0.752 to 0.836, surpassing the 0.50 threshold and demonstrating good convergent validity.
- Composite reliability (CR): CR values ranged from 0.696 to 1.000, exceeding the recommended 0.70 thresholds (with one construct very close at 0.696) and indicating high internal consistency.
- T-values: All relationships between observed variables and their respective latent factors were statistically significant at the 0.01 level, providing strong evidence for the meaningfulness of these relationships.
- R-squared values: The R-squared values, ranging from 46.0% to 78.0%, indicate that a substantial proportion of variance in the observed variables is explained by their respective latent factors.

These results collectively support the validity and reliability of the measurement model, indicating that the nine factors and their respective observed variables effectively capture the various dimensions of brand equity in the context of online health and beauty businesses in Thailand.

5. Discussion

The results of this study provide compelling evidence for the significant impact of social media marketing activities on brand equity in Thailand's online health and beauty industry. The identification of nine crucial components - Marketing Factor, Social Media Marketing Activity, Brand Association, Perceived Quality, Brand Awareness, Brand Image, Brand Trust, Brand Loyalty, and Brand Equity - offers a comprehensive framework for understanding the complex nature of brand value creation in this specific context.

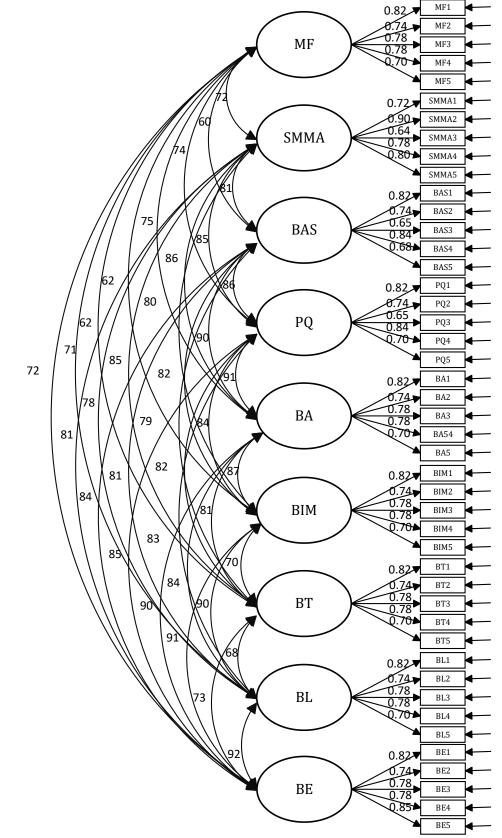


Fig. 2: The components of the confirmatory factor analysis model for the structural equation model of the brand equity of online health and beauty business in Thailand

Lint	FL	Table 2: Statisti SE	t-value	R ²	AVE	CR
List	FL		t-value	R°	AVE	CR
1001	0.02	Marketing factor (MF)		F 4 00/		
MF1	0.82	-	-	54.0%		
MF2	0.74	0.04	19.707**	62.0%	0.766	0.765
MF3	0.78	0.04	21.434**	61.0%		
MF4	0.78	0.05	21.308**	49.0%		
MF5	0.70	0.05	18.445**	61.0%		
	So	cial media marketing activity	(SMMA)			
SMMA1	0.78	-	-	65.0%		
SMMA2	0.80	0.07	21.561**	70.0%	0.002	1 000
SMMA3	0.84	0.05	22.645**	61.0%	0.802	1.000
SMMA4	0.78	0.05	20.747**	64.0%		
SMMA5	0.80	0.06	21.459**	67.0%		
		Brand awareness (BA)				
BAS1	0.82	-	-	66.0%		
BAS2	0.81	0.04	23.140**	72.0%		
BAS3	0.85	0.04	24.720**	70.0%	0.799	0.783
BAS4	0.84	0.04	24.203**	46.0%		
		0.04				
BAS5	0.68		18.185**	54.0%		
DO1	0.70	Perceived quality (PQ)		F (00/		
PQ1	0.73	-	-	56.0%		
PQ2	0.75	0.06	18.112**	66.0%	0.752	0.706
PQ3	0.81	0.06	19.781**	58.0%	0.7.02	017 0 0
PQ4	0.76	0.06	18.472**	51.0%		
PQ5	0.71	0.06	17.262**	62.0%		
		Brand association (BA)				
BA1	0.79		-	66.0%		
BA2	0.81	0.04	22.232**	63.0%	0 700	0.701
BA3	0.79	0.04	21.558**	62.0%	0.788	0.791
BA4	0.79	0.04	21.338**	58.0%		
BA5	0.76	0.04	20.571**	59.0%		
DIIS	0.70	Brand image (BI)	20.071	59.670		
BIM1	0.77	-	_	78.0%		
BIM2	0.88	0.05	24.051**	74.0%		
BIM2 BIM3	0.86	0.05	23.200**	67.0%	0.836	0.762
BIM4	0.80	0.05	21.782**	72.0%		
BIM5	0.85	0.05	22.942**	56.0%		
D/14		Brand trust (BT)		<i></i>		
BT1	0.75	-	-	66.0%		
BT2	0.81	0.05	20.362**	57.0%		
BT3	0.76	0.05	18.818**	53.0%	0.776	0.696
BT4	0.73	0.06	18.064**	67.0%		
BT5	0.82	0.05	20.574**	62.0%		
BT6	0.79	0.05	19.718**	66.0%		
		Brand loyalty (BL)				0.789
BL1	0.81	-	-	67.0%		
BL2	0.82	0.04	23.379**	70.0%		
BL3	0.83	0.04	24.122**	74.0%	0.827	
BL4	0.86	0.04	25.284**	66.0%		
BL5	0.81	0.04	23.234**	72.0%		
515	0.01	Brand equity (BE)	20.201	/ 2.0 /0		
BE1	0.85	Branu equity (BE)		59.0%		
		-	- 22 (10**			
BE2	0.77	0.04	22.610**	63.0%	0.806	0.794
BE3	0.79	0.04	23.787**	62.0%		
BE4	0.79	0.04	23.525**	70.0%		
BE5	0.84	0.04	26.070**	00.0%		

**: Statistically significant level at 0.01; SE: Standard error; FL: Factor loading; AVE: Average variance extracted; CR: Composite reliability

5.1. Theoretical implications

This research contributes to the existing literature on brand equity and social media marketing in several important ways:

- Context-specific insights: By focusing on Thailand's online health and beauty industry, this study provides valuable insights into the effectiveness of social media marketing in a rapidly growing and culturally distinct market. The strong positive relationships observed between social media marketing activities and brand equity dimensions underscore the importance of digital marketing strategies in this context, extending the applicability of brand equity theories to emerging markets (Christodoulides et al., 2006; Kim and Ko, 2010).
- Comprehensive brand equity model: The study incorporates multiple dimensions of brand equity (awareness, image, loyalty, perceived quality, trust) and examines their relationships with social media marketing activities simultaneously. This holistic approach allows for a more nuanced understanding of how social media marketing impacts different aspects of brand equity, building upon and extending the work of Aaker (1991) and Keller (1993) (Yang et al., 2022).
- Validation of measurement scales: The study adapts and validates existing measurement scales for social media marketing activities and brand equity dimensions in the context of Thailand's online health and beauty industry. This contribution enhances the reliability and validity of instruments for future research in similar contexts (Lestari and Siswantini, 2019; Kalra et al., 2023).

- Integration of social media marketing dimensions: By incorporating the multi-dimensional nature of social media marketing activities (entertainment, interaction, trendiness, customization, and word of mouth), this study provides a more detailed understanding of how different aspects of social media marketing contribute to brand equity. This builds upon the work of Kim and Ko (2012) and extends it to the specific context of online health and beauty businesses (Bilgili and Ozkul, 2015).
- Cross-cultural applicability: The findings suggest that the relationship between social media marketing activities and brand equity dimensions observed in Western contexts may also hold in the Thai market, supporting the cross-cultural applicability of these marketing concepts. However, the study also highlights unique aspects of the Thai market, contributing to the growing body of literature on international marketing (Theresia et al., 2018).

5.2. Practical implications

The results of this study offer several important implications for managers and marketers in Thailand's online health and beauty industry:

- Strategic focus on social media marketing: Given the strong positive impact of social media marketing activities on all dimensions of brand equity, businesses should prioritize and invest in comprehensive social media strategies. This includes creating engaging content, fostering customer interactions, staying up-to-date with trends, offering personalized experiences, and encouraging positive word-of-mouth (Godey et al., 2016; Seo and Park, 2018; Algharabat et al., 2020).
- A balanced approach to brand equity building: While social media marketing activities showed positive effects on all brand equity dimensions, the strongest impact was observed on brand awareness. Managers should ensure a balanced approach that not only increases awareness but also strengthens brand image, fosters loyalty, and enhances perceived quality and trust (Chaudhuri and Holbrook, 2001; Delgado-Ballester and Luis Munuera-Alemán, 2005).
- Tailored content strategies: The multi-dimensional nature of social media marketing activities suggests that businesses should develop diverse content strategies. This could include entertaining and trendy content to capture attention, interactive features to engage customers, and customized experiences to build stronger relationships (Hsu, 2012; Schivinski and Dabrowski, 2016).
- Leveraging word-of-mouth: The significant impact of social media marketing on brand equity underscores the importance of facilitating and encouraging positive word-of-mouth on social platforms. Businesses should implement strategies to motivate satisfied customers to share their experiences and recommend products to their networks (Ibrahim et al., 2020).

• Continuous monitoring and adaptation: As the online health and beauty industry in Thailand continues to evolve, businesses should regularly monitor the effectiveness of their social media marketing activities and be prepared to adapt their strategies to changing consumer preferences and platform dynamics (Keller, 2009; Davcik et al., 2015).

5.3. Policy implications

The findings of this research also have important implications for policymakers and regulatory bodies in the online health and beauty industry:

- Regulatory framework: As the industry continues to grow and evolve, it is crucial to establish guidelines and standards that ensure fair competition, protect consumer interests, and promote responsible marketing practices (Ausat, 2023; Stroe et al., 2018).
- Consumer protection: Policymakers should consider the importance of brand equity in shaping consumer perceptions and behavior and develop regulations that encourage businesses to prioritize quality, transparency, and customer satisfaction (Sürücü et al., 2019).
- Digital literacy initiatives: Given the significant role of social media in shaping brand perceptions, policymakers should consider implementing digital literacy programs to help consumers navigate online information and make informed decisions about health and beauty products.
- Support for SMEs: Policies could be developed to support small and medium-sized enterprises in the online health and beauty industry, helping them leverage social media marketing effectively to compete with larger, more established brands.

6. Conclusion

This studv provides а comprehensive examination of the impact of social media marketing activities on brand equity in Thailand's online health and beauty industry. By identifying and analyzing nine essential components-Marketing Factor, Social Media Marketing Activity, Brand Association, Perceived Quality, Brand Awareness, Brand Image, Brand Trust, Brand Loyalty, and Brand Equity - we have developed a holistic framework for understanding brand value creation in this specific context (Aaker, 1991; Keller, 2003; Yoo et al., 2000).

The findings underscore the significant positive influence of social media marketing activities on various dimensions of brand equity. This relationship highlights the critical role of digital marketing strategies in building strong brands within the highly competitive and rapidly evolving online health and beauty market in Thailand (Godey et al., 2016; Seo and Park, 2018; Algharabat et al., 2020). The study's results emphasize the interdependence of these components and their collective impact on brand success, suggesting that a comprehensive approach to brand management is essential for long-term success in this industry (Chaudhuri and Holbrook, 2001; Delgado-Ballester and Luis Munuera-Alemán, 2005; Severi and Ling, 2013).

This research makes several key contributions to the field:

- 1. Context-specific insights: By focusing on Thailand's online health and beauty industry, this study provides valuable insights into the effectiveness of social media marketing in a rapidly growing and culturally distinct market. These findings extend the applicability of brand equity theories to emerging markets and contribute to the growing body of literature on international marketing (Christodoulides et al., 2006; Kim and Ko, 2010).
- 2. Comprehensive brand equity model: The incorporation of multiple dimensions of brand equity and their simultaneous examination with social media marketing activities offers a more nuanced understanding of brand value creation in the digital age. This holistic approach builds upon and extends seminal works in the field (Yang et al., 2022).
- 3.Validation of measurement scales: The adaptation and validation of existing measurement scales for the Thai context enhance the reliability and validity of instruments for future research in similar settings (Lestari and Siswantini, 2019; Kalra et al., 2023).
- 4. Practical guidelines: The study provides actionable insights for managers and marketers in the online health and beauty industry, offering guidance on how to leverage social media marketing effectively to build strong brand equity (Keller, 2009; Davcik et al., 2015; Sürücü et al., 2019).

While this study provides valuable insights, it is important to acknowledge its limitations and identify areas for future research:

- 1. Cross-sectional design: The cross-sectional nature of the study limits our ability to establish causal relationships. Future research could employ longitudinal designs to examine the long-term effects of social media marketing activities on brand equity.
- 2. Self-reported measures: The reliance on selfreported measures may introduce common method bias. Future studies could incorporate objective measures of social media engagement and brand performance to complement selfreported data.
- 3. Focus on Thailand: While the focus on Thailand provides valuable context-specific insights, it may limit the generalizability of findings to other markets. Future research could conduct crosscultural comparisons to examine how the relationships between social media marketing

activities and brand equity dimensions vary across different cultural contexts.

- 4. Industry specificity: This study focused on the online health and beauty industry. Future research could explore how the impact of social media marketing activities on brand equity dimensions differs across various industries within the Thai ecommerce sector.
- 5. Moderating factors: While this study examined the potential moderating effects of demographic variables, future research could investigate other potential moderators, such as consumer personality traits, social media platform preferences, or product categories within the health and beauty industry.
- 6. Mediating mechanisms: Future studies could explore the mediating mechanisms through which social media marketing activities influence brand equity dimensions, such as customer engagement, brand experience, or perceived value.

In conclusion, this research contributes significantly to the understanding of brand equity in the online health and beauty industry, providing valuable insights for businesses, policymakers, and researchers. The findings highlight the critical role of social media marketing in building strong brands in the digital age, particularly in the context of emerging markets like Thailand.

As the online health and beauty industry continues to evolve, businesses that effectively leverage social media marketing will be better positioned to build strong brand equity, foster achieve customer loyalty, and sustainable competitive advantage. By recognizing the importance of the nine identified components and their synergistic effects, stakeholders can develop informed strategies, policies, and research agendas that foster the growth and success of online health and beauty brands in Thailand and beyond.

This study lays a strong foundation for future research in the field of brand equity and online business. The structural equation model developed in this research can serve as a framework for further investigations, enabling researchers to explore the nuances of brand value creation in different contexts and industries (Hair et al., 2014; Henseler et al., 2015). As digital technologies continue to reshape consumer behaviors and market dynamics, ongoing research in this area will be crucial for understanding and adapting to the evolving landscape of brand management in the digital era.

Compliance with ethical standards

Ethical considerations

This study was conducted in accordance with ethical research guidelines. Participation in the survey was voluntary, and informed consent was obtained from all participants prior to data collection. Participant anonymity and confidentiality were strictly maintained, and no personally identifiable information was collected.

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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