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The Influence of Social Media on Brand Equity: Analyzing the Four Dimensions of Consumer-Based Brand Value

Minlin Hu[1],

Weixian Zhan[2,*] and

Yitong Zhang[3]

[1]School of Music, Guangzhou College of Technology and Business, Guangdong, China
[2]Kenneth P. Dietrich School of Arts and Sciences, University of Pittsburgh, PA, USA
[3]School of Foreign Languages and Cultures, Nanjing Normal University, Jiangsu, China
*Corresponding author: Wez139@pitt.edu

Abstract:

This study focuses on the transformation of brand communication in the digital age, particularly under the profound influence of social media platforms such as Instagram, TikTok, Weibo, and Redbook. As consumer attention shifts toward highly interactive, algorithm-driven environments, traditional brand-building models have struggled to adapt to new forms of engagement and value creation. As social media becomes a primary medium for brand-customer interaction, the ability to evaluate and manage brand equity in this context is essential for sustaining long-term competitive advantage. This research contributes to evolving literature by offering an integrated analysis of how digital platforms shape consumer-based brand equity in real time. The research primarily adopts the method of literature analysis, reviewing a wide range of academic studies, marketing reports, and case examples across platforms and cultural contexts. This approach allows for a systematic comparison of brand-building mechanisms while highlighting cross-platform patterns and emerging consumer behaviors. The strength of this method lies in its ability to synthesize diverse perspectives and identify theoretical gaps, offering a comprehensive understanding of the topic.

Keywords: Social media branding; algorithmic marketing; brand equity; cross-cultural engagement.

1. Introduction

This research examines social media's reconfiguration of consumer-based brand equity across four dimensions: Brand Awareness, Brand Association, Brand Loyalty, and Perceived Quality. Analyzing Instagram, TikTok, Weibo, and Rednote, we demonstrate that algorithmic distribution, UGC ecosystems, and interactive design dynamically reshape brand value. Algorithmic targeting increases passive exposure by 52%, yet content homogenization limits active search conversion to 2.1%. AR interactions enhance recall 2.1× via embodied cognition, but transient content reduces retention to <33% of traditional media benchmarks [1,2]. For brand association, utilitarian/personalized content strengthens memory encoding, while influencer authenticity requires cultural adaptation [3]. Cross-cultural loyalty drivers diverge: functional satisfaction dominates in Japan versus herd mentality in Indonesia [4]. Decentralized evaluation increases defect tolerance by 40% when professional/amateur reviews coexist, though platform algorithms distort perception—default positive-review ranking inflates ratings by 23% [5].

Critical challenges include attention fragmentation, algorithmic stereotyping, and emotional contagion risks. Future research should: 1) Develop serialized narratives for sustained recall, 2) Build cultural semantic maps for symbolic cognition, 3) Integrate AI-driven emotional computing, and 4) Employ eye-tracking to test quality judgment. We position social media as a co-creative ecosystem for brand meaning beyond mere communication.

Specifically, this study examines the four fundamental dimensions of brand equity—brand awareness, brand association, brand loyalty, and perceived quality—through the lens of social media. Drawing from established theoretical models and recent empirical findings, the paper provides a detailed review of how each dimension is constructed, maintained, or disrupted within the digital ecosystem. The urgency for new frameworks arises from the increasing complexity of brand perception, shaped not only by corporate messaging but also by user-generated content and participatory experiences. Understanding these dynamics is of great significance for both scholars and practitioners. The goal of this study is to develop a conceptual framework that clarifies how social media influences.

2. Research Background

With the rapid rise of social media, the landscape of brand marketing has undergone profound transformations. Platforms such as Instagram, TikTok, Weibo, and Rednote have not only reshaped the way consumers access information but also redefined the dynamics of interaction between brands and users. Characterized by high interactivity, algorithmic recommendation, and a user-generated content (UGC) ecosystem, social media enables brands to reach consumers at an unprecedented pace while enhancing brand impressions through mechanisms such as "participatory memory." In a marketing environment increasingly driven by visual elements, emotions, and community culture, traditional models of brand communication are no longer sufficient, and there is an urgent need for new theoretical frameworks and empirical evidence to guide brand building in the social media era.

The theory of brand equity provides a systematic framework for understanding the long-term value of brands. It posits that a brand's market performance depends not only on short-term sales outcomes but also on the accumulation and shaping of perceptions in the consumer's mind. Brand equity is typically understood through four core dimensions: brand awareness, brand association, brand loyalty, and perceived quality [1,6]. In recent years, a growing body of research has further refined this framework, emphasizing the interactivity and dynamism of these four dimensions within the social media context. Scholars have increasingly pointed out that brand equity is no longer a static resource but rather a cognitive construct continuously shaped by user-generated content, platform algorithms, and interactive experiences [4]. These four dimensions serve as the foundation of consumer perception and behavior and have become key indicators for evaluating the effectiveness of social media marketing. This paper will systematically review the existing literature surrounding these four dimensions, analyzing the specific mechanisms, representative cases, and emerging challenges associated with brand equity formation on social media platforms.

3. Brand Awareness

Brand awareness refers to the ability of target consumers to identify or recall a brand in different contexts, and is a key component of brand assets. It reflects consumers' familiarity with the brand name, logo, symbol, or other features, usually reflected in the brand's salience and accessibility in consumers' minds. In the new media environment, the construction of brand awareness has evolved from traditional one-way exposure to a complex process influenced by multiple dynamic factors such as algorithm distribution, interactive scene design, content strategy, and cross platform attention structure. In the new media era, scholars have identified several emerging variables that influence brand awareness, including algorithm-driven distribution mechanisms on social media platforms, Interactive scene design, Content strategy and audience attention structures across different platforms.

The distribution mechanism driven by social media algorithms has reshaped the path of brand visibility. The "Spark Program" launched by TikTok in 2023 shows that intelligent push based on the "interest map" (such as the precise coverage of beauty brands for female users aged 25-34) has increased the passive brand touch rate by 52% in a single month [1].

More importantly, 'interactive scene design' is deconstructing traditional cognitive models. Taking the Anta Winter Olympics Theme Challenge as an example, users generate content through AR skiing filters, triggering the "embodied cognition effect" - participants' memory intensity of the brand logo is 2.1 times higher than static advertising [2]. This "participation is memory" model proves that the activation of mirror neurons at the neural level becomes a new basis for constructing popularity.

Despite the significant increase in exposure through algorithms and interaction design, the "popularity conversion efficiency" still faces a key bottleneck. The tracking study by Chen et al. showed that for every 10% decrease in the thousand impressions cost of fast-moving consumer

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goods brands on social platforms, the active search rate of users only increased synchronously by 2.1%. This disconnects stems from the dual pressure of "content homogenization" and "attention fragmentation": when multiple sports brands simultaneously launch skiing challenges, users' recognition of a specific brand decreases by 19% [2]. Zhang further pointed out that the instantaneous information flow leads to a memory retention rate of less than one-third of the core elements of a brand in a single TV advertisement. Future research should focus on "long-term content strategies" - such as developing continuous narrative interactions (such as brand serialized comics) to verify their sustained effect on brand recall.

The audience attention structure of different social media platforms significantly affects the efficiency of popularity conversion. Instagram and other image-based platforms rely on Aesthetic Coherence. Studies have shown that when a brand's main color appears more than 5 times in a row, users' recall rate without prompts increases by 33% [6]; However, text platforms such as Twitter rely on semantic anchors (such as high frequency embedding of brand slogans into topics), and their memory retention strength is only 61% of that of visual platforms [7]. More importantly, Yuanqi Forest's AR game targeting college students achieved a brand recognition rate of 89%, but when the same model was used for users over 40 years old, the abandonment rate was as high as 74% due to interaction complexity (third-party AB testing). In the future, it is necessary to establish 'A cross generational cognitive map' to quantify the symbol decoding efficiency of different age.

4. Social Media and Brand Loyalty

The resource "From Liking to Loyalty: Exploring the Impact of Influencer Credibility on TikTok Purchase Intention" authors proposes that the dynamics of social media platforms, such as specific algorithm-driven and highly interactive models like TikTok, can facilitate effective and in-depth interaction between influencers and their customers. To enhance brand loyalty more effectively. Meanwhile, compared with the advertisements of traditional brands, the generation of content by Internet celebrities is regarded as more genuine and capable of establishing an emotional connection with the brand, thereby effectively enhancing brand loyalty [6]. The deficiency of this study lies in that it does not mention the differences in population and culture. Whether the adoption of different marketing strategies by different cultures when using social media marketing will affect product loyalty makes the study more rigorous and credible.

The resource "Emotional Branding and Customer Loyalty: Gen Z in Japan and Indonesia" authors comparing social interaction in Japan and Indonesia, analyzing social media users from different perspectives through psychological mechanisms (such as emotional attachment and social identity). For instance, social media uses algorithms to recommend personalized content to prompt consumers to purchase products of corresponding brands. Strengthen self-identity. Meanwhile, social media has strengthened the concept of social identity. People may repeatedly purchase a certain commodity either because they are in a certain group or due to the herd effect. Negative information on social media may also cause cognitive dissonating, such as bad reviews, which can lead to a decline in brand loyalty [4]. For this research, the future direction is to explore how social media can be combined with AI to enhance brand loyalty. Both two studies demonstrate that social media establishes emotional patterns in marketing by adopting emotional connections, emphasizing the significant role played by social identity and herd mentality in social media marketing. In terms of methods to enhance brand loyalty, the significance of AI algorithms has also been emphasized. For example, the social software we commonly use in life, such as TikTok, RedNote, etc., all push some brand personality or social recognition through AI algorithms, thereby enhancing brand awareness. The second study integrates a cross-cultural perspective and emphasizes how social identity and conformist behavior shape brand loyalty in different ways across various cultural contexts. It can be seen from this that both studies have brought new perspectives and ideas to our research, that is, to achieve effective marketing of brands through the integration of social media and AI algorithms, thereby strengthening users' emotional connection with the brand and enhancing brand awareness.

5. Brand Association

"How are brands associated by users in short videos—A study on the mechanism of user associations with brand placements in short videos based on signal theory" authors mainly examines how the content on social media short-video platforms such as Kuai Shou and TikTok affects users' associations and perceptions of brands. This study collected data through questionnaires and found that some contents on social media platforms that describe the practicality and personalization of brands are more likely to be remembered by users and thus trigger associations [3]. The research defect of this study lies in that the sample of this study is not diverse enough. It only studied short-video users in China, rather than users from different countries and cultures.

The recourse "What else is new about social media influencers? Uncovering their relation and content strategies, and the downsides of being famous" authors explores the impact of social media on brand association from four aspects. These four key points have largely shaped the brand's association on social media, including authenticity, topic sensitivity, fact-checking, and privacy management. When applied to brand content, these principles can enhance consumers' trust and emotional connection, which is precisely a key component of brand association [8]. This study only focused on the research of TikTok alone, and the data for cross-platform research was insufficient. In the future, emphasis should be placed on research on different platforms to increase the diversity and credibility of this study. Both two studies demonstrate how celebrities and different short-video platforms enhance brand awareness. It enables us to clearly understand the elements that enhance the degree of brand association, such as practicality and personalization. At the same time, using celebrity endorsements can also enhance the brand's association. From this, in the strategy of enhancing brand relevance, many psychological effects are also integrated. For instance, the exposure effect indicates that people always develop a favorable impression of those or things that frequently appear before them. When people often see a brand endorsed by a certain celebrity appear on social media, it will increase their favorable impression of that brand. Meanwhile, the short-video platform also utilizes algorithms to exert the influence of the similarity-attraction effect. It refers to the fact that people may prefer things or people like themselves. Through the intervention of short video algorithms. People can often find brands that they favor or like more, that is, enhance the personalization of the brand, thereby better improving the brand's relevance. It can thus be seen that the two studies on the correlation between social media and brands can be linked to marketing psychology. In future research, it is also possible to focus on how to incorporate psychological theories into social media marketing to better enhance brand relevance.

6. Perceived Quality

Perceived Quality refers to the subjective explanatory framework formed by consumers based on available information, their own experience, and external environment (such as platform rules, information networks) regarding the quality level of products or services. It is a dynamic and continuously adjusting psychological process, rather than a passive reception of objective quality, and its results directly affect consumers' evaluation, trust, and purchasing decisions. The decentralized information network and platform rules were empirically demonstrated to exert substantial influence on consumers' quality evaluation.

The decentralized information network has disrupted the traditional authoritative system of quality assessment. The comparative experiment conducted by Kim et al. showed that when Rednote amateur evaluation and Weibo professional evaluation coexist, consumers' acceptance threshold for product defects increases by 40% [5]. This "complementary effect of information sources" is particularly significant in the luxury goods industry: Gucci showcased the handmade stitching process of leather goods in its 2023 live broadcast, which increased the audience's trust in "Made in Italy" craftsmanship by 67% through "microscopic visual evidence". It is worth noting that "dynamic information flow" is replacing static parameter tables as quality anchors, for example, the car brand ZEEKR is using a short video of continuous 30-day battery low-temperature testing to reconstruct users' evaluation criteria for range.

The existing research seriously underestimates the systematic distortion of platform rules on quality judgment. The Wang team crawled 100000 e-commerce reviews and found that the default ranking of the top 5 positive reviews inflated consumer quality ratings by 23%, while negative reviews needed to be viewed by swiping more than 7 screens [9,10]. This' Visibility Deprivation 'has led to' false quality consensus', such as complaints from Florasis's loose powder loose fans about algorithm blocking oil control effects, which maintained a rating of 4.9 points until the 2023 public opinion crisis.

7. Discussion

However, challenges such as content homogenization, attention fragmentation, and emotional risks have also emerged, posing new difficulties for brand management. This review not only offers a conceptual framework for understanding current mechanisms of brand equity formation but also points to future research directions and practical strategies for enterprises in the evolving digital landscape.

While short videos and AR interactions have significantly improved the immediacy of brand visibility, the challenge of "momentary heat, rapid forgetting" remains prevalent in users' long-term brand recall. Future research could delve into the sustained effects of narrative-based content strategies, such as serialized brand comics or interactive storylines featuring virtual brand avatars, to assess their role in maintaining long-term memory and enabling cross-platform communication. Additionally, the differing attention structures across platforms—such as the visual-centric nature of Instagram versus the semantic orientation of Twitter—deserve further investigation to support more differentiated strategies for brand exposure.

Most existing studies have focused on Chinese users, lacking comparative research on brand association mechanisms in cross-cultural settings. Future studies should consider collecting data across platforms and regions to construct a "cultural semantic map" that reveals how users of different nationalities, age groups, and digital environments extract, misinterpret, or reconstruct brand

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meanings in social content. Moreover, it is necessary to examine whether algorithmic recommendations reinforce certain stereotypes—such as gender roles or occupational labels—and how such biases may affect the brand's long-term image.

Emotional bonding has become a crucial driver of brand loyalty in the age of social media. Future research may focus on how AI technologies can facilitate emotionally intelligent brand-user interactions, for instance, through smart customer service, sentiment recognition, or personalized content recommendations—to foster a deeper sense of belonging. Furthermore, it would be worthwhile to examine whether users from different age groups or cultural backgrounds follow distinct paths toward loyalty (e.g., function-satisfaction-driven vs. emotion-dependence-driven), which can inform the development of more empathetic and human-centered retention strategies.

Although formats such as short videos and livestreams provide more vivid "visual evidence" of product quality, algorithm-driven recommendation systems may generate a "false consensus" effect. Future research could explore how platform rules reshape users' evaluative logic, for example, how default prioritization of positive reviews and the concealment of negative feedback distorts perceptions of product quality. Experimental methods such as eye-tracking and emotion detection can be employed to test how different modes of information presentation influence perceived quality, thereby guiding platforms to optimize content ranking mechanisms in a more transparent and trustworthy way.

8. Conclusion

The key findings of this study indicate that social media significantly influences the formation and transformation of consumer-based brand equity across its four core dimensions: it enhances brand awareness through algorithmic exposure and interactive content; fosters brand association via symbolic narratives and influencer authenticity; strengthens brand loyalty through emotional engagement and community identity; and reshapes perceived quality by decentralizing evaluation systems and amplifying dynamic user feedback. Therefore, the overarching conclusion is that social media not only serves as a communication channel but also functions as an active co-creator of brand meaning and value.

This study offers valuable theoretical and practical contributions to the ongoing discourse on digital marketing and brand management. By synthesizing current research and mapping out the multi-dimensional effects of social media, it provides marketers and scholars with a clearer understanding of how consumer perception evolves in the digital age. It also highlights the importance of platform-specific strategies, emotional intelligence in branding, and transparency in content presentation—factors that are becoming increasingly central to long-term brand success.

Looking forward, future research should delve deeper into cross-cultural differences in brand perception, the ethical implications of algorithmic influence, and the integration of artificial intelligence in shaping brand-customer interactions. As social media ecosystems continue to evolve, ongoing inquiry is needed to refine branding models, ensure inclusivity, and align digital marketing strategies with shifting consumer values and behaviors.

Authors Contribution

All the authors contributed equally and their names were listed in alphabetical order.

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