



Social Proof As A Moderating Variable on The Influence of Brand Awareness on Purchasing Decisions

Efti Novita Sari¹, Liestyowati², Akhmad Julian Saputra³, Aryadi⁴, Hamdiah⁵

¹*Universitas Pahlawan Tuanku Tambusai, Indonesia*

²*Universitas Telkom, Indonesia*

³*Sekolah Tinggi Ilmu Ekonomi Nasional Banjarmasin, Indonesia*

⁴*Universitas Pahlawan Tuanku Tambusai, Indonesia*

⁵*Universitas Jambi, Indonesia*

*Email: efti@universitaspahlawan.ac.id

ABSTRACT

This study aims to analyze and test the role of social proof as a moderating variable in the relationship between brand awareness and purchasing decisions. In the highly dynamic digital economy era, consumers are faced with abundant product information, so brand recognition alone is no longer sufficient to guarantee a purchasing decision. A quantitative approach was used in this study with an explanatory design. The research sample included active e-commerce consumers selected through a purposive sampling technique. Data collection was conducted using a structured questionnaire with a 5-point Likert scale, and data analysis was tested using Structural Equation Modeling - Partial Least Squares (SEM-PLS) through SmartPLS software. The results of the analysis indicate that brand awareness has a positive and significant effect on purchasing decisions. Furthermore, moderation testing confirmed that social proof significantly strengthens the influence of brand awareness on purchasing decisions. These findings indicate that when consumers have high brand awareness and are reinforced by social validation such as positive reviews, product ratings, and influencer recommendations the probability of a purchasing decision will increase exponentially. The theoretical implications of this study expand the framework of Signaling Theory and Social Influence Theory in the context of modern consumer behavior, while its practical implications provide strategic guidance for marketing practitioners to integrate influencer marketing and user-generated content strategies to optimize sales conversions.

Keywords: Brand Awareness, Purchasing Decisions, Social Proof, Moderating Variables, SEM-PLS.

INTRODUCTION

The modern global business landscape has undergone a fundamental transformation driven by the acceleration of digital technology and shifts in consumer behavior. The development of e-commerce

platforms and social media has created a highly competitive market environment, where consumers are exposed to unlimited product information daily (Gefen et al., 2020). In this information overload situation, companies are not only required to create quality products but also to capture consumers' attention and direct them to actual purchases. Purchasing decisions *are* a key indicator of the success of a company's marketing strategy and business sustainability (Kotler & Keller, 2021). However, triggering purchasing decisions in the digital era has become increasingly complex because modern consumers tend to be more critical, skeptical, and rely on various references before making financial commitments (Cheung et al., 2021).

One classic construct consistently considered a key foundation in forming purchasing decisions is brand awareness. Brand *awareness* reflects a potential buyer's ability to recognize or recall that a brand is part of a particular product category (Aaker, 2018). In the hierarchy of marketing effects, brand awareness is at the initial cognitive level, which significantly determines whether a product will enter a consumer's consideration set (Keller, 2020). Brands with a high level of awareness tend to be more memorable, provide a sense of familiarity, and reduce consumers' perceptions of risk when making a transaction (Foroudi, 2019). When consumers are faced with several similar product choices, the most familiar brand usually has a higher probability of being chosen compared to an unfamiliar brand (Cheung et al., 2020).

Although traditional marketing literature consistently affirms a positive relationship between *brand awareness* and purchase decisions, recent empirical findings indicate an inconsistency (*research gap*). Several studies have found that high levels of *brand awareness* do not always correlate with increased purchase decisions (Chae et al., 2020; Hutter et al., 2018). Consumers may be highly familiar with a brand through extensive advertising, but they may not be motivated to purchase if the brand lacks credibility or perceived added value (Dinh & Lee, 2021). This phenomenon indicates an *awareness-behavior gap*, where cognitive awareness stops at the recognition stage without transforming into conative action or a purchase decision (Zafar et al., 2021). Therefore, conditional variables are needed to bridge or strengthen the relationship between *brand awareness* and purchase decisions.

Theoretically, the limitations of *brand awareness* in driving purchasing decisions can be explained through *Signaling Theory* (Spence, 1973). In a market context characterized by information asymmetry, brand awareness serves as an initial signal regarding the presence and identity of a product in the market (Connelly et al., 2011). However, this signal is often considered insufficient by consumers to mitigate purchase risks, especially in digital transactions where the physical product cannot be touched directly (Taj, 2016). Consumers need secondary signals that serve to confirm and validate the truth of the primary signal from the brand (Boulding & Kirmani, 1993). In this context, feedback from the social environment and other consumers becomes a vital additional signal to reduce uncertainty and build consumer trust *before* making a final decision (Mavlanova et al., 2012).

The variable identified as having significant potential as a moderator *within* this framework is social proof. The concept of *social proof*, rooted in *Social Influence Theory* (Cialdini, 2021), states that individuals tend to look to the actions and behaviors of others to determine the appropriate course of action for themselves, especially in situations of doubt or uncertainty. In the realm of digital marketing, *social proof* manifests itself in the form of *online* customer reviews, star ratings, displays of product sales, certifications, and recommendations from social media *influencers* (Amblee & Bui, 2011; Filieri et al., 2021). When consumers perceive that a product has been purchased and received positive validation from many people, the perception of psychological and financial risk decreases significantly (Nuseir, 2019).

The integration of *social proof* as a moderating variable is based on the premise that the impact of *brand awareness* on *purchasing decisions* is not static, but rather depends on the level of social validation that accompanies it. Consumers who are aware of a brand's existence (*high brand awareness*) will be much more confident in making a transaction if the brand is supported by strong *social proof* in

the market (Li et al., 2020). Conversely, if a brand is well-known but surrounded by negative reviews or a lack of accumulated reviews from previous buyers (low social proof), then brand awareness can lose its driving force for purchasing decisions, or even potentially trigger consumer doubt (Park et al., 2021). *Social proof* acts as a psychological catalyst that transforms cognitive familiarity (*awareness*) into concrete action (*purchasing decisions*).

The importance of examining *social proof* as a moderating factor is further reinforced by the post-pandemic consumer behavior, which is increasingly reliant on *User-Generated Content* (UGC) and *Electronic Word-of-Mouth* (eWOM). According to a recent report on digital marketing trends, over 80% of consumers read online reviews before deciding to purchase a product they are new to (Gretzel et al., 2020). Modern purchasing decisions are no longer simply the result of one-way communication between marketers and consumers through traditional advertising, but rather the result of collective interactions where the opinions of the consumer community influence brand credibility (Dhar & Jha, 2021). This dynamic emphasizes that the presence of *social proof* can transform passive brand awareness into an active and compelling purchase drive (Vrontis et al., 2021).

Despite the high urgency of studying *social proof*, most previous research has positioned *social proof* or online reviews as a direct independent variable influencing purchasing decisions or purchase intentions (e.g., Maslowska et al., 2017; Moran et al., 2019). Very few studies have explicitly tested *social proof* as an interactive moderating construct within the framework of the relationship between *brand awareness* and *purchasing decisions*. Most existing literature assumes that product reviews and *brand awareness* operate separately, without exploring how the two variables interact conditionally to influence consumer behavior (Siering et al., 2018). This theoretical gap is what this study aims to fill.

The existence of this gap in the empirical literature has led to the need for a more comprehensive conceptual framework to explain the interactions between these constructs. This study proposes that the influence of *brand awareness* on purchasing decisions is strengthened by *social proof*. While *brand awareness* provides the foundation for initial recognition and familiarity, *social proof* provides the reassurance and social legitimacy necessary for consumers to leap from merely "knowing" to "buying" (Purnawirawan et al., 2015). Testing this moderation model is expected to provide a deeper understanding of the mechanisms of purchasing decisions in the highly dynamic digital realm.

Theoretically, this research makes an important contribution to the development of marketing management science, particularly in the literature on consumer behavior and brand management. This research integrates *Signaling Theory* and *Social Influence Theory* into a single, coherent conceptual model to explain the *awareness-behavior gap* phenomenon. The results of this study are expected to enrich academic understanding of how elements of internal brand awareness and external environmental validation combine in a moderating manner to influence individual economic actions (Sharma et al., 2021). This understanding of contingency is crucial to complement existing theories of adoption and purchasing decisions, which have tended to be simple, linear.

Practically, the findings of this study have high strategic relevance for marketing managers, e-commerce business owners, and creative industry practitioners. Amidst the high costs of customer acquisition and digital advertising promotions, marketers can no longer rely solely on large budgets to increase *brand awareness* (Stephen, 2016). Marketers must simultaneously design strategies to strengthen *social proof*, such as managing a transparent customer review system, encouraging buyers to provide visual feedback, and utilizing *micro-influencer* campaigns that command a high level of trust among their followers (Audrezet et al., 2020). Optimizing the interaction between brand awareness and social proof will be a much more efficient and high-impact marketing strategy in increasing sales conversion rates in an increasingly competitive digital market.

Based on the description of business phenomena, *research gaps*, literature limitations, and theoretical and practical significance outlined above, this study was conducted to empirically test the role of *social proof* as a moderating variable in the influence of *brand awareness* on purchasing

decisions. This research is expected to provide solid scientific evidence and serve as a reference for developing marketing strategies based on the integration of brand reputation and the power of social validation.

RESEARCH METHODS

This study uses a quantitative approach with an explanatory design to test and analyze the role of *social proof* as a moderating variable in the influence of *brand awareness* on *purchasing decisions*. The population in this study are active consumers of *e-commerce* platforms in Indonesia who have purchased products online in the last three months. The sample was determined using a *non-probability sampling* technique with a *purposive sampling* method. The sample size was set at 250 respondents, which meets the ideal *sample size criteria for variance-based Structural Equation Modeling* (SEM) analysis modeling. Primary data were collected through the distribution of structured online questionnaires measured using a 5-point Likert Scale (ranging from 1 for "Strongly Disagree" to 5 for "Strongly Agree").

The operationalization of the research variables is divided into three main constructs which are derived into measurable indicators. The independent variable is *Brand Awareness* (X) is measured through 4 indicators adapted from Keller (2020), including *brand recall*, *brand recognition*, *top-of-mind awareness*, and *knowledge of brand attributes*. The moderating variable *Social Proof* (Z) is measured using 4 indicators developed by Cialdini (2021) and Filieri et al. (2021), including *the volume of online customer reviews*, *user rating scores*, *influencer recommendations*, and *perceived peer validation*. Meanwhile, the dependent variable *Purchasing Decisions* (Y) is measured through 4 indicators referring to Kotler and Keller (2021), namely *speed of purchase decision*, *product brand selection*, *purchase quantity*, and *repurchase conviction*.

Data testing was conducted systematically using the *Partial Least Squares - Structural Equation Modeling* (PLS-SEM) technique with the help of SmartPLS 4 software. The analysis was conducted through two main evaluation stages, namely the evaluation of the measurement model (*outer model*) and the evaluation of the structural model (*inner model*). The evaluation of *the outer model* includes a convergent validity test (*loading factor* $> 0,70$ and *Average Variance Extracted* / AVE $> 0,50$), discriminant validity test (*Fornell-Larcker criterion* and *HTMT* $< 0,90$), as well as reliability testing (*Composite Reliability* $> 0,70$ and *Cronbach's Alpha* $> 0,70$). Next, an evaluation of *the inner model* is carried out to assess the coefficient of determination (R^2), *effect size* (f^2), *predictive relevance* (Q^2), as well as the significance test of the path coefficients *through the bootstrapping* process with 5,000 samples at the significance level $5\% (\alpha = 0,05)$.

Based on the framework of thought and theoretical basis developed, the hypothesis in this study is formulated as follows: (H_1) *Brand Awareness* has a positive and significant influence on consumer *Purchasing Decisions on e-commerce* platforms ; (H_2) *Social Proof* has a positive and significant influence on consumer *Purchasing Decisions on e-commerce* platforms ; and (H_3) *Social Proof* plays a significant role as a moderating variable *that* strengthens the influence of *Brand Awareness* on consumer *Purchasing Decisions on e-commerce* platforms .

RESULT AND DISCUSSION

Research result

Testing of the measurement model (*outer model*) and structural model (*inner model*) was carried out using the *Partial Least Squares-Structural Equation Modeling (PLS-SEM)* approach with the help of *SmartPLS 4* software. The respondents in this study were 250 active e-commerce consumers in Indonesia.

Evaluation of the Measurement Model (*Outer Model*)

The *outer model* evaluation is conducted to ensure that the research instrument meets validity and reliability criteria. This evaluation includes tests of convergent validity, discriminant validity, and construct reliability. Convergent Validity and Construct Reliability: Based on the results of data processing, all indicators of the *Brand Awareness*, *Social Proof*, and *Purchasing Decisions* constructs have *outer loading* values above 0,70. In addition, the *Average Variance Extracted (AVE)* value for all variables is above the minimum limit 0,50. The construct reliability is also met with the *Cronbach's Alpha* and *Composite Reliability* values (r_c) which exceeds 0,70.

Table 1
Evaluation of Measurement Model (*Outer Model*)

Variables	Indicator	Outer Loading	Cronbach's Alpha	Composite Reliability (r_c)	AVE
Brand Awareness (X)	X1.1 (<i>Brand Recall</i>)	0,824	0,865	0,908	0,712
	X1.2 (<i>Brand Recognition</i>)	0,851			
	X1.3 (<i>Top-of-Mind</i>)	0,863			
	X1.4 (<i>Attribute Knowledge</i>)	0,836			
Social Proof (Z)	Z1.1 (<i>Review Volume</i>)	0,812	0,881	0,918	0,737
	Z1.2 (<i>Rating Scores</i>)	0,875			
	Z1.3 (<i>Influencer Rec.</i>)	0,869			
	Z1.4 (<i>Peer Validation</i>)	0,878			
Purchasing Decisions (Y)	Y1.1 (<i>Decision Speed</i>)	0,845	0,872	0,913	0,723
	Y1.2 (<i>Brand Selection</i>)	0,861			

	Y1.3 (Purchase Quantity)	0,839			
	Y1.4 (Repurchase Conviction)	0,856			

Discriminant validity was evaluated using the *Heterotrait-Monotrait Ratio* (HTMT) criteria. The HTMT values between constructs in this study showed figures below 0,85, which confirms that all variables are statistically proven to be conceptually different.

Evaluation of the Structural Model (*Inner Model*) and Hypothesis Testing

The *inner model* test is carried out to see the value of the coefficient of determination (R^2), *effect size* (f^2), as well as the path coefficient values through the *bootstrapping* procedure with 5,000 samples at $t=1,96$ ($\alpha = 0,05$). Mark R^2 for the *Purchasing Decisions* variable, the value obtained is 0,684. This indicates that 68,4% Variations in *Purchasing Decisions* variables can be explained by *Brand Awareness*, *Social Proof*, and the moderating interaction between the two, whereas 31,6% the rest is influenced by other variables outside the research model.

Table 2
Results of Structural Model Testing (*Inner Model*) and Hypothesis

Hypothesis	Relationship Path	Original Sample (β)	Sample Mean (M)	Standard Deviation	t-Statistics	p-Values	Information
H_1	Brand Awareness → Purchasing Decisions	0,342	0,340	0,052	6,577	0,000	Accepted
H_2	Social Proof → Purchasing Decisions	0,385	0,387	0,058	6,638	0,000	Accepted
H_3	Brand Awareness × Social Proof → Purchasing Decisions	0,215	0,212	0,046	4,674	0,000	Accepted

Discussion

The Influence of Brand Awareness on Purchasing Decisions (H_1)

The results of the first hypothesis test confirm that *Brand Awareness* has a positive and significant influence on *Purchasing Decisions* ($\beta = 0,342, t = 6,577, p = 0,000$). This finding aligns with the basic framework of *Signaling Theory* (Spence, 1973), where brand awareness acts as an initial cognitive signal that reduces the burden of information search for consumers. In an information-dense digital marketplace, consumers tend to prioritize familiar brands to minimize perceived transaction risk. Brands with strong *top-of-mind awareness* enter the primary consideration set and accelerate consumers' rational calculations toward actual purchase action. This finding is consistent with research by Keller (2020) and Cheung et al. (2020) which states that strong brand recognition and recall are the main foundations driving purchasing decisions.

The Influence of Social Proof on Purchasing Decisions (H_2)

The second hypothesis proves that *Social Proof* has a positive and significant influence on *Purchasing Decisions* ($\beta = 0,385, t = 6,638, p = 0,000$). These results strengthen the validity of *Social Influence Theory* (Cialdini, 2021) in the e-commerce landscape. When potential buyers are directly confronted with uncertainty about a product's physical attributes, social proof indicators—such as a high volume of reviews, accumulated star ratings, and peer validation—act as psychological reassurance mechanisms. Consumers tend to assume that the actions of the majority of previous buyers represent correct and safe decisions. Higher path coefficient values for *Social Proof* ($\beta = 0,385$) compared to *Brand Awareness* ($\beta = 0,342$) asserts that in the era of *user-generated content* (UGC), modern consumer perceptions are more dominantly shaped by the voices and experiences of the user community than recent marketer claims.

3The Role of Social Proof as a Moderating Variable (H_3)

The results of the moderation analysis show that *Social Proof* significantly strengthens the influence of *Brand Awareness* on *Purchasing Decisions* ($\beta = 0,215, t = 4,674, p = 0,000$). The moderation nature identified is *quasi-moderation*, because *Social Proof* not only interacts significantly as a moderator, but also has a significant direct influence on the dependent variable.

Conceptually, this finding successfully bridges the *awareness-behavior* gap that is often debated in modern marketing literature. Brand recognition alone (*high brand awareness*) often only creates cognitive familiarity without sufficient conative impetus to transact. However, when the familiar brand is supported by a strong accumulation of *Social Proof*—such as positive reviews and influencer recommendations—consumer trust escalates exponentially. *Social Proof* functions as a catalyst that transforms "brand knowledge" into "certainty of purchasing." Conversely, in situations where *Social Proof* is low or inconsistent, the effectiveness of *Brand Awareness* decreases, because modern consumers tend to delay transactions if the brand's presence signal is not validated by a track record of satisfaction from other consumers.

CONCLUSION

This study has successfully empirically proven that *Brand Awareness* and *Social Proof* have a very crucial role in shaping consumer *Purchasing Decisions* on e-commerce platforms. Directly, *Brand Awareness* is proven to have a positive and significant influence on purchasing decisions, where a strong level of brand recognition and recall becomes an effective initial signal to attract products into consumer consideration. These findings suggest that brand popularity and familiarity are the main foundations that minimize the perception of doubt among potential buyers when navigating product choices in the digital market.

On the other hand, *social proof* has also been shown to have a positive and significant direct influence on *purchasing decisions*, even with a relatively stronger level of direct influence compared to brand awareness alone. The accumulation of user reviews, ratings, and recommendations from fellow buyers and *influencers* acts as a form of social validation that provides assurance of product quality. The existence of this *social proof* effectively reduces the risk of asymmetric information, thus encouraging consumers to make purchasing decisions more quickly and confidently.

The main contribution of this research lies in proving the role of *Social Proof* as a moderating variable (*quasi-moderation*) that significantly strengthens the influence of *Brand Awareness* on *Purchasing Decisions*. High brand awareness will not produce optimal sales conversions if it is not supported by positive reviews and social legitimacy. Thus, *social proof* functions as a psychological

catalyst capable of bridging *the awareness-behavior gap*, by transforming consumers' cognitive familiarity with a brand into concrete actions of purchasing decisions.

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