THE INFLUENCE OF GMP LOGO INCLUSION IN INFLUENCER POSTS ON CONSUMER PRODUCT PERCEPTION: AN A/B EXPERIMENTAL STUDY IN MALAYSIA'S COSMETIC SME CONTEXT

Firdaus Hamdi Noor Mohd[1]*, Wan Nadhra Ixora Wan Kamarulbaharin[2], Husna Saaidin[3], Prinses Saliang[4]

[1]Faculty of Art & Design, Universiti Teknologi MARA Shah Alam, Malaysia
fizzyillustrations@gmail.com
https://orcid.org/0009-0004-8195-9052

[2]Faculty of Art & Design, Universiti Teknologi MARA Shah Alam, Malaysia
wannadhraixora@uitm.edu.my
https://orcid.org/0009-0004-7141-6772

[3]Faculty of Art & Design, Universiti Teknologi MARA Shah Alam, Malaysia
husnasaaidin@uitm.edu.my
https://orcid.org/0009-0003-8192-2671

[4]Faculty of Art & Design, Universiti Teknologi MARA Shah Alam, Malaysia
prinses@uitm.edu.my
https://orcid.org/0000-0001-7566-116X

*Corresponding Author

Article Info:

Abstract:

The rapid growth of influencer marketing has intensified concerns regarding consumer trust, particularly within the cosmetic sector where perceived safety and credibility are critical. This study examines the impact of Good Manufacturing Practice (GMP) logo inclusion in influencer promotional content on consumer product perception. Using an experimental A/B testing design, participants were randomly assigned to view either a non-GMP stimulus (Image A) or a GMP-certified stimulus (Image B), with both visuals generated using artificial intelligence to minimise brand familiarity and influencer recognition bias. A total of 111 responses were collected, of which 100 valid cases were retained following attention-check screening. Product perception was measured using a composite construct encompassing credibility, perceived safety, and purchase intention. Reliability analysis demonstrated excellent internal consistency across all scales. Manipulation checks confirmed that participants clearly recognised the GMP cue. Independent-samples t-test results revealed a statistically significant difference between conditions, with the GMP stimulus producing substantially higher product perception scores compared to the non-GMP condition (M = 4.52 vs. M = 2.77, p < .001), accompanied

by a large effect size (Cohen's d = 1.35). The findings provide experimental evidence that GMP certification functions as a powerful visual trust cue in influencer-mediated cosmetic marketing. From a theoretical perspective, the results support signalling theory and the Elaboration Likelihood Model, highlighting how regulatory symbols reduce perceived risk and guide consumer judgement under conditions of limited information processing. Practically, the study underscores the importance of visible certification in influencer collaborations, particularly for small and medium-sized cosmetic enterprises seeking to enhance brand credibility and purchase intention. The results contribute to understanding how regulatory cues interact with influencer content to shape consumer perception in digital marketplaces.

Introduction

In Malaysia's growing cosmetic and skincare market, consumers are increasingly exposed to influencer-based promotional content through social media platforms, particularly Instagram. This environment facilitates rapid access to product information, influencer endorsements, and visually persuasive marketing, making online persuasion a central element in purchase decision-making. At the same time, skincare represents a product category associated with heightened consumer sensitivity due to concerns surrounding authenticity, safety risks, and product suitability. When consumers are unable to evaluate product quality directly, they frequently rely on external signals to reduce uncertainty and form confident judgements (Zeithaml, 1988). This reliance on simplified cues is especially relevant for small and medium enterprises (SMEs), where limited brand recognition may further constrain perceived legitimacy and consumer trust (Erdem & Swait, 2004).

One strategy increasingly adopted by Malaysian cosmetic SMEs is the inclusion of regulatory-related quality assurance symbols such as the Good Manufacturing Practice (GMP) logo in promotional materials. Certification logos commonly function as credibility cues that may reduce perceived risk and strengthen trust-related evaluations (Atkinson & Rosenthal, 2014; Kirmani & Rao, 2000). Consumer decision-making research suggests that individuals interpret quality seals and trust marks as simplified indicators of reliability, particularly in high-uncertainty purchases involving health and personal care products (Jacoby & Kaplan, 1972). However, despite the widespread appearance of certification symbols in influencer marketing

visuals, empirical evidence remains limited regarding whether GMP logo inclusion alone can meaningfully influence consumer evaluation within influencer promotional contexts.

In influencer-mediated environments, consumer responses are often shaped by a combination of perceived credibility, safety, and behavioural intention. Rather than operating independently, these dimensions collectively form an overall product perception that guides judgement under conditions of limited information. Cosmetic products involve hidden attributes such as manufacturing hygiene, formulation accuracy, and regulatory compliance, which are not directly observable during online exposure. As a result, consumers may rely on visible indicators, such as certification logos, to infer product legitimacy using minimal cognitive effort.

From a theoretical perspective, signalling theory explains how observable cues such as certification logos reduce information asymmetry between producers and consumers by communicating unobservable quality attributes (Spence, 1973). In parallel, the Elaboration Likelihood Model suggests that individuals in fast-paced digital environments frequently engage in peripheral processing, relying on heuristic cues rather than detailed analytical evaluation (Petty & Cacioppo, 1986). Within influencer marketing contexts, regulatory symbols may therefore function as peripheral trust cues that shape overall product perception without requiring consumers to fully understand technical manufacturing standards.

Recent studies further highlight the influence of influencer-based persuasion on consumer behaviour. For instance, Samala and Rawas (2024) report that influencer credibility and perceived trustworthiness are positively associated with consumer purchasing behaviour, suggesting that trusted influencers can play a significant role in shaping consumer decisions. These findings reinforce the importance of examining how visual trust signals, such as certification logos, operate within digital endorsement environments, particularly for SMEs seeking to establish legitimacy in competitive cosmetic markets.

Recent international scholarship also highlights how digital environments and emerging technologies shape user judgement and self-reported behaviour. Samala, Papadakis, and Rawas (2025), through a large-scale bibliometric analysis, demonstrate the growing influence of mobile and digital learning systems on user engagement and decision-making across higher education contexts, underscoring how technology-mediated environments increasingly guide perception formation. Similarly, Lavidas et al. (2022) show that social context significantly affects self-reported evaluations, indicating that individuals' judgements in digital or semi-structured settings may be influenced by external cues and situational framing. In addition, Lampropoulos and Papadakis (2025) discuss the broader role of artificial intelligence in shaping user interaction and trust within digital systems, emphasising how visual and technological elements can influence confidence and behavioural responses. Although situated in educational and technological domains, these findings reinforce the importance of examining how external signals and system cues affect perception in mediated environments, supporting the relevance of investigating GMP certification as a visual trust indicator within influencer-based cosmetic marketing.

Accordingly, this study investigates the influence of GMP logo inclusion in influencer promotional visuals using an experimental A/B testing design. A/B testing provides a controlled approach for isolating the effect of a single manipulated cue by comparing consumer responses across visually similar conditions. Rather than treating credibility, perceived safety,

and purchase intention as separate outcomes, this research conceptualises consumer evaluation as a unified product perception construct encompassing these interrelated dimensions. The study therefore examines whether exposure to a GMP logo within influencer promotional content produces significantly more favourable overall product perception compared to visually identical content without GMP certification.

By empirically testing the role of GMP certification in shaping consumer product perception, this study contributes to consumer psychology and digital marketing literature by clarifying how regulatory trust cues function within influencer-mediated persuasion. The findings offer practical insights for cosmetic SMEs and influencers regarding the strategic use of certification signals to enhance brand credibility and consumer confidence in online marketplaces.

The remainder of this paper is organised as follows. The next section reviews relevant literature on certification cues, perceived risk, signalling, and product perception in influencer marketing contexts. This is followed by the theoretical framework and methodology describing the experimental procedure and statistical analysis. Finally, results and discussion are presented alongside practical and educational implications.

Literature Review

Certification and Regulatory Cues in Consumer Evaluation

Consumers frequently face information asymmetry when evaluating products, particularly in categories where quality cannot be verified prior to consumption. Cosmetics and skincare products represent such categories because performance and safety outcomes are not fully observable at the point of purchase. When uncertainty exists, consumers rely on observable signals that are believed to reflect hidden quality (Kirmani & Rao, 2000; Spence, 1973). As a result, certification marks and regulatory logos play a functional role in consumer judgement, since they are often interpreted as evidence of compliance, quality assurance, and standardised practices (Atkinson & Rosenthal, 2014).

In online promotional settings, regulatory cues may become more influential because consumers experience information overload, limited attention span, and reduced motivation to verify detailed claims. Under such conditions, certification symbols operate as trust cues that simplify judgement and reduce perceived risk (Zeithaml, 1988). In Malaysia's skincare market, where awareness of unregulated products and misleading claims has increased, regulatory assurance symbols may further strengthen consumers' evaluation confidence. Therefore, the GMP logo can be expected to contribute positively toward perception outcomes, even when consumers do not fully understand the technical details of certification.

Contemporary research in digital consumer behaviour suggests that influencer-based environments intensify reliance on heuristic evaluation, as consumers frequently form judgements under conditions of limited attention and information overload. Samala and Rawas (2024) find that trusted influencers are more effective at engaging audiences and shaping purchasing behaviour, indicating that external signals of legitimacy play a critical role in reducing consumer uncertainty during online decision-making. This perspective reinforces the relevance of certification logos as visual trust indicators within influencer promotional content.

Recent studies highlight that consumers increasingly depend on simplified external cues such as certification marks, labels, and trust badges when evaluating products online, particularly under information overload and limited attention. These cues are often interpreted as signals of reliability and quality, which can reduce uncertainty during pre-purchase evaluation (Rosillo-Díaz et al., 2024; Qalati et al., 2021). In product categories involving health or bodily outcomes, certification symbols become even more influential because consumers may view them as risk-reduction indicators that guide safer decision-making (Vieira et al., 2024; Wang, 2025).

Additionally, meta-analytic evidence emphasises the central role of **trust and perceived risk** in shaping online purchase decisions across digital environments, regardless of demographic or socio-economic differences, highlighting the universal importance of credibility in e-commerce contexts (Handoyo, 2024). Trust, perceived safety, and electronic word-of-mouth (e-WOM) have been shown to directly influence consumer behaviour in digital purchasing, underscoring the need for credible cues such as certification logos and third-party assurances when consumers face uncertainty in online evaluation processes. These findings provide a broader, cross-contextual basis for examining how visual trust signals influence consumption decisions in influencer-mediated settings.

Credibility as a Trust-Related Consumer Outcome

Credibility refers to the extent to which consumers perceive a product or promotional message as believable, reliable, and trustworthy. Credibility is central in persuasion and consumer behaviour research, especially in contexts involving uncertainty and risk (Erdem & Swait, 2004). In influencer marketing, credibility becomes particularly important due to the blended nature of entertainment and promotion. Consumers may develop scepticism when exposure to persuasive content is repeated or unclear. Therefore, the presence of official-looking cues can influence whether consumers accept claims as legitimate.

However, credibility assessments derived from self-reported measures may also be influenced by social desirability and contextual response bias. Lavidas et al. (2022) demonstrate that participants' evaluations can vary significantly depending on social context, highlighting the importance of carefully interpreting survey-based perception data. This suggests that experimental designs examining credibility and safety perception must acknowledge potential response bias while ensuring stimulus clarity and controlled presentation.

In influencer-based advertising, credibility remains one of the most important determinants of whether consumers accept promotional claims and perceive the endorsed product as trustworthy. Recent studies suggest that influencer content is more persuasive when the message environment supports trust and credibility perception, which subsequently strengthens consumer intention and loyalty outcomes (Alcántara-Pilar et al., 2024; Liu, 2025). Therefore, the inclusion of official-looking certification cues may increase perceived credibility by strengthening the impression that product claims are supported by external compliance standards, particularly when consumers possess limited product knowledge.

Past research in advertising and persuasion demonstrates that consumers often evaluate messages through credibility-based judgement when full information is unavailable (MacKenzie & Lutz, 1989). In the SME cosmetic context, where brand familiarity is often limited, credibility can be reinforced through external validation cues such as certification marks, which reduce uncertainty and strengthen acceptance of product claims (Atkinson &

Rosenthal, 2014). Hence, a GMP logo displayed in promotional visuals may enhance credibility perception.

Perceived Safety and Risk Reduction in Skincare Consumption

Perceived safety refers to the consumer's confidence that a product is safe and less likely to cause harm. In skincare evaluation, safety is closely linked with perceived risk because consumers often fear undesirable outcomes such as allergies, irritation, or long-term skin damage. Perceived risk theory suggests that consumers weigh uncertainty and potential negative outcomes in decision-making, particularly for health-related or body-related products (Jacoby & Kaplan, 1972). Therefore, safety perception becomes a key psychological outcome shaping consumer confidence.

Perceived safety also closely linked to consumer psychological reassurance, particularly in cosmetic and skincare markets where consumers remain concerned about adverse reactions, product authenticity, and unregulated claims. Recent evidence in risk perception research shows that cosmetic consumers may underestimate risks or continue unsafe practices, suggesting that safety judgement is often driven by cues and behavioural heuristics rather than full technical knowledge (Wang, 2025; Alnuqaydan et al., 2024). In such environments, certification cues may serve as simplified safety signals that help consumers infer legitimacy and reduce perceived risk during fast online decision-making (Vieira et al., 2024).

Beyond advertising credibility, perceived risk is a critical determinant of consumer hesitation and trust formation in online contexts. Comprehensive reviews of perceived risk literature indicate that risk perceptions significantly moderate the relationship between trust and online purchasing decisions, suggesting that safety cues such as third-party seals and assurance icons may reduce uncertainty and strengthen consumer confidence (Efriyanto, 2024). These insights support the idea that visual trust markers like GMP logos can act as risk-reducing cues in digital purchasing environments, reinforcing consumer confidence beyond product information alone.

Safety judgement may be influenced by multiple cues, including brand legitimacy and regulatory assurance. If consumers interpret a certification logo as evidence of controlled manufacturing practices, this may strengthen safety confidence and reduce anxiety. Certification cues, therefore, play an important role in creating trust and reassurance within high-risk product contexts.

Purchase Intention as Behavioural Outcome

Purchase intention refers to the likelihood that consumers would consider purchasing a product after exposure to promotional stimuli. Intention is widely used as a behavioural indicator in consumer research and is commonly associated with acceptance, evaluation, and readiness to act (Ajzen, 1991; Fishbein & Ajzen, 1975). Purchase intention is influenced by perceptions of credibility, perceived risk, and overall trust confidence. In online environments, purchase intention may develop quickly because consumers rely on rapid cues instead of detailed investigation, particularly under peripheral processing conditions.

Contemporary empirical studies confirm that **influencer credibility directly shapes purchase intention**, often through trust and engagement pathways. For example, recent research on digital influencer marketing shows that credibility and engagement mediate the effect of

influencer content on brand perception and consumer purchase intentions across international samples (Khan, 2023). Likewise, large-scale quantitative studies indicate that perceived influencer credibility and transparency significantly enhance purchase intentions among youth consumers in different cultural contexts, highlighting the global relevance of trust-based mechanisms in influencer marketing effectiveness (Saad et al., 2025). These findings align with evidence that credibility cues, whether in content messaging or visual signals could play a central role in bridging consumer perception and purchase action.

Additional research highlights the **multi-dimensional nature of influencer credibility**, where dimensions such as trustworthiness, attractiveness, and audience engagement are empirically linked to stronger consumer evaluations and behavioural intentions across diverse online contexts. Studies show that influencer credibility increases consumer brand intimacy and purchase intention, often through mediated processes such as consumer engagement and trust relationships (Hani, 2024; Alcántara-Pilar et al., 2024). Such findings indicate that influencer marketing outcomes are shaped by a combination of content quality, credibility cues, and audience interactions, reinforcing the need to investigate visual and symbolic trust signals in consumer perception research.

In digital purchasing environments, behavioural intention is strongly influenced by trust-related beliefs and risk reduction cues, particularly when consumers evaluate products without direct inspection. Recent online consumer behaviour studies consistently show that trust and perceived risk remain central predictors of purchase intention, indicating that credibility cues can shape behavioural willingness by increasing confidence and reducing uncertainty (Qalati et al., 2021; Rosillo-Díaz et al., 2024). Similarly, influencer marketing research continues to report that credibility and perceived trust significantly contribute to consumer intention outcomes, especially within fast-scrolling short-form content contexts (Alcántara-Pilar et al., 2024; Liu, 2025).

Recent scholarship also points to the expanding role of digitally mediated social actors in shaping perception and trust formation. Lampropoulos and Papadakis (2025) note that emerging AI-driven systems increasingly influence how individuals interpret information and develop confidence in digital environments. This broader technological shift supports the inclusion of AI-generated influencer stimuli in experimental research, as such representations reflect contemporary digital communication practices and evolving consumer engagement with synthetic or mediated content.

Therefore, if a GMP logo strengthens credibility and safety evaluation, it may also indirectly increase purchase intention as consumers become more confident about the product's legitimacy and reduced risk.

Research Gap

Although certification logos and regulatory cues are commonly used in cosmetic marketing, empirical research remains limited in experimentally isolating the visual effect of GMP logo inclusion within influencer promotional posts, particularly in SME skincare contexts in Malaysia. While existing studies have examined influencer credibility, digital persuasion, and consumer trust broadly, few have employed controlled A/B testing to evaluate certification logos as standalone visual cues. This study addresses this gap by using an experimental design

to assess whether GMP logo visibility significantly influences overall consumer product perception within influencer-mediated promotional environments.

Theoretical Foundation

Elaboration Likelihood Model (ELM)

This study is primarily grounded in the Elaboration Likelihood Model (ELM), which explains how individuals process persuasive messages through two routes: central and peripheral (Petty & Cacioppo, 1986; Petty, Cacioppo, & Schumann, 1983). Under central processing, consumers carefully evaluate message arguments, while under peripheral processing, they rely on cues such as symbols, visuals, and heuristic indicators. Social media promotional environments frequently promote peripheral processing due to short attention windows and fast content consumption.

In this context, certification logos can serve as peripheral cues that influence consumer evaluation without extensive message elaboration. Thus, the GMP logo is theorised to function as a peripheral trust cue influencing credibility, safety perception, and purchase intention.

Signalling Theory Perspective

Signalling theory further supports this mechanism by explaining how observable cues reduce information asymmetry between sellers and buyers (Spence, 1973). Cosmetics involve hidden attributes that consumers cannot directly verify, such as production hygiene and manufacturing compliance. Therefore, certification marks such as GMP function as signals of credibility and quality, potentially improving consumer confidence (Kirmani & Rao, 2000).

Conceptual Framework

Based on the Elaboration Likelihood Model (ELM) and signalling theory, this study proposes that GMP logo inclusion functions as a regulatory-related peripheral cue that reduces uncertainty during consumer evaluation. When the GMP logo is visible in influencer promotional content, consumers may interpret the product as more credible and safer, resulting in stronger confidence in the promoted item. These interrelated evaluations jointly form overall product perception. Accordingly, this study examines whether GMP logo inclusion significantly enhances consumers' overall product perception compared to non-GMP content.

Hypothesis Development

Based on signalling theory, perceived risk frameworks, and the Elaboration Likelihood Model, the presence of GMP certification is expected to function as a visual trust cue that enhances consumer evaluation of influencer-promoted cosmetic products. As credibility, perceived safety, and behavioural intention jointly reflect overall product perception in this context, the following hypothesis is proposed:

H1: Consumers exposed to influencer promotional content containing a GMP logo will report significantly higher overall product perception than consumers exposed to equivalent content without a GMP logo.

Methodology

Research Design

This research employed an experimental A/B testing design to assess the influence of Good Manufacturing Practice (GMP) logo inclusion on consumer perception. A/B testing is effective for isolating the impact of a single manipulated visual element by comparing responses across two controlled conditions. Two promotional stimuli were created for this study: Image A, which did not include a GMP logo, and Image B, which included a GMP logo. Both images were designed to resemble influencer promotional posts on Instagram, with identical content structure, captions, and aesthetic presentation, differing only in the inclusion or exclusion of the GMP logo.

Participants were randomly assigned to view either Image A or Image B before completing the questionnaire. This between-subjects design enabled direct comparison of consumer perceptions under GMP and non-GMP conditions, allowing the study to isolate the effect of GMP logo visibility on perceived credibility, safety, and purchase intention.

This study followed basic CONSORT reporting principles for experimental research, including participant screening, random assignment, and transparent reporting of exclusions.

Participants and Group Distribution

Data were collected through an online survey, yielding a total of 111 responses. To ensure data quality, an attention-check item was embedded within both experimental conditions. Respondents who failed to correctly answer this item were excluded from further analysis. Following this screening process, 100 valid responses remained for statistical evaluation.

Of these, 55 respondents were assigned to the Image A (non-GMP) condition, while 45 respondents viewed Image B (GMP).

Experimental Stimulus Development and Control Measures

To maintain experimental neutrality and minimise potential confounding effects, both the influencer model and product visuals used in the A/B testing conditions were generated using artificial intelligence (AI). This approach reduced the likelihood that participants' evaluations were influenced by prior familiarity with real influencers or existing brand reputations. By employing AI-generated imagery, the study avoided unintended brand associations and eliminated ethical concerns related to the unauthorised use of identifiable individuals or trademarked products.

Both experimental stimuli were designed to resemble Instagram influencer promotional posts, with identical layout, captions, and visual presentation. The only manipulated element between conditions was the inclusion of the Good Manufacturing Practice (GMP) logo in Image B, while Image A remained identical but without the GMP logo. This controlled design ensured that any observed differences in perceived credibility, safety, and purchase intention could be attributed specifically to GMP logo visibility rather than external recognition bias.

Overall, the use of AI-generated content strengthened internal validity by isolating the effect of GMP certification cues, thereby supporting more reliable interpretation of the significant differences observed between the non-GMP and GMP conditions.

AI Image Generation and Validation Procedure

The influencer and product visuals were generated using a text-to-image generative AI system. Prompt engineering was guided by typical Instagram cosmetic promotional characteristics, including a neutral facial expression, clean aesthetic composition, handheld product presentation, and soft lighting consistent with influencer marketing conventions. Prompts specified a generic female influencer, minimalist background, natural makeup styling, and product-centred framing to resemble common skincare promotional posts, while avoiding identifiable brand names or distinctive facial features.

To ensure realism and content validity, multiple image iterations were generated and reviewed by the researchers. Selection criteria included visual clarity, professional appearance, and consistency with contemporary influencer aesthetics. The final stimuli were chosen based on consensus agreement among the research team that both images plausibly represented authentic influencer posts. Apart from the inclusion or exclusion of the GMP logo, all other visual elements were held constant across conditions.

A small informal pre-test was conducted to verify that the stimuli appeared realistic and that the GMP logo was clearly visible in the experimental condition. Feedback confirmed that participants perceived the images as typical influencer promotional content, supporting the ecological validity of the stimuli.

Experimental Procedure

Participants were randomly assigned to view one version of the influencer post stimulus corresponding to either the non-GMP condition (Image A) or the GMP condition (Image B). After exposure to the assigned stimulus, respondents completed a series of evaluation items measuring product perception and influencer-related constructs.

A manipulation check was incorporated to verify whether participants noticed the presence or absence of the GMP logo. This check consisted of two items: "The image I saw included a quality certification logo" and "I noticed an official-looking logo on the product post." These items confirmed participants' awareness of the certification cue and supported the validity of the experimental manipulation.

Measures

Product perception was operationalised as a composite construct encompassing credibility, perceived safety, and purchase intention. These dimensions were measured using multiple Likert-scale items and combined into a single product perception index for analysis. This approach reflects the interrelated nature of trust, risk evaluation, and behavioural intention in influencer marketing contexts, particularly within cosmetic products where uncertainty is relatively high.

Demographic Profile of Respondents

Most respondents were aged between 21–25 years (34%), followed by 26–30 years (18%) and 31–35 years (17%). Female participants constituted 65% of the sample, while males accounted for 32%. Over half of respondents resided in Selangor (55%), followed by Kuala Lumpur (13%) and Johor (8%). Instagram usage was high, with 67% reporting daily use and a further 21% engaging several times per week. In terms of education, most respondents held a bachelor's degree (65%), while 16% reported postgraduate qualifications. Cosmetic and skincare usage was frequent, with 79% indicating daily use. Overall, the demographic profile reflects a young, urban, digitally active, and cosmetically engaged sample, appropriate for examining influencer-driven brand perceptions.

Ethical Considerations

This study was approved by the Universiti Teknologi MARA (UiTM) Research Ethics Committee (Approval Ref: **REC/01/2026 (PG/MR/49)**). All research procedures were conducted in accordance with UiTM ethical guidelines for studies involving human participants. Prior to participation, respondents were provided with an information sheet explaining the purpose of the study, the voluntary nature of participation, and their rights as participants. Informed consent was obtained electronically from all participants before data collection commenced.

Participants were assured of anonymity and confidentiality, and no personally identifiable information was collected. Respondents were informed that they could withdraw from the study at any time without penalty. All data were used solely for academic research purposes and were stored securely in accordance with institutional data protection requirements.

No vulnerable populations were involved in this study.

Data Analysis

Data were analysed using descriptive statistics and inferential comparison testing. An independent-samples t-test was applied to evaluate whether the inclusion of the Good Manufacturing Practice (GMP) logo produced statistically significant differences in consumer product perception between experimental conditions. Composite mean scores were calculated for product perception based on items measuring credibility, perceived safety, and purchase intention. This approach enabled controlled evaluation of GMP logo inclusion as a persuasion and trust cue within influencer promotional contexts.

Participant Distribution

Following attention-check screening, 100 valid responses were retained for analysis. Participants were assigned to two experimental conditions through online branching logic. The non-GMP condition (Image A) was viewed by 55 respondents, while the GMP condition (Image B) was viewed by 45 respondents. This relatively balanced distribution supported independent group comparison.

Manipulation Check

A manipulation check was conducted to verify whether participants recognised the presence of the GMP logo as intended. Two items measuring logo awareness were used: "The image I saw included a quality certification logo" and "I noticed an official-looking logo on the product post." Composite mean scores were calculated for both conditions.

Participants in the GMP condition (Image B) reported substantially higher logo awareness (M = 5.21, SD = 1.74, n = 45) compared to those in the non-GMP condition (Image A) (M = 2.52, SD = 1.39, n = 55). An independent-samples t-test confirmed a statistically significant difference between the two groups, t = −8.41, p < .001, with a very large effect size (Cohen's d = 1.73). These results indicate successful manipulation of the experimental variable.

Reliability Analysis

Reliability analysis was conducted using Cronbach's alpha to assess internal consistency across all constructs. The Image A (non-GMP) product perception scale demonstrated excellent reliability (α = 0.965), while the Image B (GMP) scale also exhibited excellent internal consistency (α = 0.967). The influencer behaviour and brand perception construct achieved a Cronbach's alpha of 0.979. All values exceeded the recommended threshold of 0.70, indicating strong reliability of the measurement instruments.

Descriptive Statistics

Composite mean scores were computed for each construct. The Image A (non-GMP) condition recorded a mean product perception score of 2.77 (SD = 1.21), whereas the Image B (GMP) condition produced a substantially higher mean of 4.52 (SD = 1.39). The influencer behaviour and brand perception construct achieved a mean score of 4.65 (SD = 1.07). These findings indicate more favourable evaluations under the GMP condition compared to the non-GMP condition, alongside generally positive perceptions of influencer behaviour and associated brand credibility.

Table 1: Descriptive Statistics of Main Constructs (n = 100) (TNR, 12, Single Spacing, Bold, Centre, Capitalize Each Word)

Construct	Mean	SD
Image A Perception	2.773	1.214
Image B Perception	4.520	1.393
Influencer Behaviour & Brand Perception	4.648	1.066

Independent Samples t-Test

Preliminary screening indicated no severe departures from normality. Given that both groups exceeded 30 respondents, the independent-samples t-test was considered appropriate under the Central Limit Theorem.

An independent-samples t-test was conducted to examine differences in product perception between Image A (non-GMP; n = 55) and Image B (GMP; n = 45). Results revealed a

statistically significant difference between the two conditions, with Image B (M = 4.52) receiving higher perception scores than Image A (M = 2.77), t = −6.61, p < .001. The effect size was large (Cohen's d = 1.35), indicating a substantial impact of GMP logo inclusion on consumer perceptions.

Summary of Results

Overall, the experimental findings provide strong evidence that the inclusion of a GMP logo in influencer promotional content significantly enhances consumer product perceptions. The manipulation check confirmed that participants clearly recognised the presence of the GMP logo, with substantially higher logo awareness reported in the GMP condition compared to the non-GMP condition, indicating successful experimental manipulation.

Reliability analysis demonstrated excellent internal consistency across all measurement scales. Descriptive results showed consistently higher mean scores for the GMP condition relative to the non-GMP condition. Inferential testing further revealed a statistically significant difference in product perception between Image A and Image B, with participants exposed to GMP-certified content reporting higher levels of perceived credibility, safety, and purchase intention. The large observed effect size indicates a substantial practical impact of GMP logo inclusion on consumer evaluations.

Taken together, these results confirm that GMP certification functions as a powerful visual trust cue in influencer-mediated cosmetic marketing, significantly strengthening perceived product legitimacy and behavioural intention.

Discussion

Interpretation of GMP Logo Effects on Consumer Perception

The results demonstrate that the inclusion of a GMP logo in influencer promotional content significantly enhances overall product perception, encompassing perceived credibility, safety, and purchase intention. Participants exposed to the GMP condition reported substantially higher evaluations compared to those viewing the non-GMP stimulus, with a large observed effect size, indicating that GMP logo inclusion exerts a strong practical influence on consumer judgement.

This finding aligns with consumer evaluation literature suggesting that credibility is strengthened through the presence of reliable external indicators, particularly in contexts characterised by uncertainty and limited ability to verify product claims (Erdem & Swait, 2004; Kirmani & Rao, 2000). Within influencer-based marketing environments, where promotional content is delivered in brief and highly visual formats, regulatory cues such as GMP logos provide immediate legitimacy signals that consumers may interpret as evidence of quality assurance (Atkinson & Rosenthal, 2014).

From a signalling perspective, certification logos function as observable indicators that reduce information asymmetry between brands and consumers (Spence, 1973). Cosmetic products involve hidden attributes including manufacturing hygiene, formulation accuracy, and safety compliance, which are not directly observable at the point of online exposure. In such contexts, certification cues become particularly meaningful because they enable consumers to infer

product credibility using limited information (Kirmani & Rao, 2000; Zeithaml, 1988). The substantial difference in product perception between GMP and non-GMP conditions therefore supports the role of GMP as an effective credibility signal for small and medium-sized cosmetic enterprises.

Theoretical Implications: ELM, Perceived Risk, and Signalling

The positive impact of GMP logo inclusion on product perception is also consistent with perceived risk theory, which posits that consumers evaluate purchases based not only on expected benefits but also on uncertainty and potential harm, especially for health- and body-related products (Jacoby & Kaplan, 1972). Skincare products may produce immediate physical effects such as irritation or allergic reactions, making safety evaluation a central psychological requirement prior to acceptance of promotional influence.

Within this framework, the GMP logo may be understood as a risk-reduction cue that communicates manufacturing compliance while simultaneously providing psychological reassurance that the product is less risky. This interpretation aligns with prior evidence indicating that certification marks influence consumer confidence by functioning as safety-related heuristics (Atkinson & Rosenthal, 2014; Zeithaml, 1988).

The Elaboration Likelihood Model further explains why the GMP logo exerted such a strong effect on consumer evaluations. According to ELM, individuals process persuasive information through central or peripheral routes depending on their motivation and cognitive capacity (Petty & Cacioppo, 1986). In fast-paced social media environments, users typically engage in peripheral processing, relying on heuristic cues rather than detailed analytical evaluation (Petty et al., 1983). In the present study, the GMP logo likely operated as a peripheral cue, shaping perceptions without requiring consumers to understand technical manufacturing standards. This supports the argument that certification logos influence persuasion not because consumers fully comprehend regulatory frameworks, but because the symbol itself functions as a credible marker guiding evaluation (Petty & Cacioppo, 1986; Spence, 1973).

Semiotic Meaning of Certification Logos

Beyond regulatory compliance, the findings suggest that GMP logos convey broader symbolic meanings, including interpretations such as "safe," "professionally produced," and "less risky." From a semiotic perspective, certification marks operate as signs that communicate socially constructed meanings and guide consumer interpretation. Even in the absence of detailed regulatory knowledge, consumers may associate certification logos with legitimacy through shared cultural understandings and marketing conventions. This reinforces the view that certification symbols function not only as technical indicators but also as communicative cues that enhance confidence and reduce uncertainty during evaluation.

Behavioural Implications and Purchase Intention

The significantly higher product perception scores observed in the GMP condition were accompanied by stronger behavioural intention, indicating that regulatory cues influence not only evaluative judgments but also consumers' readiness to act. This finding aligns with behavioural models suggesting that purchase intention reflects a function of beliefs, evaluation, and confidence (Ajzen, 1991; Fishbein & Ajzen, 1975). In the present context, enhanced

credibility and perceived safety likely contributed to increased willingness to purchase, as participants became more confident in the product's legitimacy and reduced risk. These results suggest that GMP certification influences persuasion outcomes indirectly by strengthening trust-related evaluations, which subsequently support behavioural intention.

Implications

Practical Implications for SME Cosmetic Brands

The findings suggest that SMEs can strengthen consumer evaluation outcomes through simple but strategic adjustments, such as including visible regulatory cues within influencer promotional visuals. Since SMEs often have limited brand equity and weaker reputational advantage, certification signals such as GMP can operate as credibility substitutes and reduce consumer hesitation (Erdem & Swait, 2004; Zeithaml, 1988).

However, it is important that SMEs ensure that certification logos are used ethically and accurately. Misuse or misleading certification claims could create reputational risk and may negatively affect consumer trust in the long term.

Implications for Influencer Marketing Practice

For influencer marketing campaigns, incorporating trust symbols may enhance the perceived reliability of sponsored messages. The manipulation checks results show that cue visibility matters under brief attention windows, which aligns with ELM assumptions that peripheral cues must be noticeable to influence evaluation (Petty & Cacioppo, 1986). Therefore, SMEs should consider clearer visual placement and consistent cue presentation when developing influencer promotional materials.

Educational and Psychological Implications

The study contributes to consumer education and psychology by showing that consumers rely on symbolic regulatory cues when evaluating products under uncertainty. Since consumers may depend on such cues without understanding their full meaning, educational efforts may focus on improving certification literacy and evaluation skills, especially for high-risk product categories (Jacoby & Kaplan, 1972). This aligns with broader consumer decision-making research indicating the importance of risk comprehension and information evaluation in purchase environments (Ajzen, 1991).

Conclusion

This study tested the influence of GMP logo inclusion in influencer promotional visuals using an A/B experimental design. Findings confirmed that the GMP logo significantly increased overall product perception, encompassing credibility, perceived safety, and purchase intention. The manipulation checks further validated that the experimental cue was clearly recognised across conditions.

From a theoretical perspective, the findings are consistent with ELM and signalling theory, indicating that certification cues can operate as peripheral trust signals that reduce uncertainty and guide consumer judgement (Petty & Cacioppo, 1986; Spence, 1973). Practically, the study

suggests that SMEs may improve consumer evaluations by using regulatory assurance symbols strategically in influencer marketing materials. Future research may expand this work by testing multiple certification cues, using larger samples, and examining moderating factors such as prior certification familiarity, consumer scepticism, or product involvement.

Overall, the results demonstrate that certification cues function as effective persuasion and trust signals in digital marketing environments, particularly for SME cosmetic products where consumers face uncertainty and perceived risk. The study concludes that SMEs may strengthen consumer responses through strategic and ethical inclusion of credible regulatory cues in influencer branding. Future research may expand this approach by increasing sample size, testing other certification marks, and exploring whether cue effects differ by demographic segments or product categories.

Limitations of the Study

While this study provides experimental evidence that GMP logo inclusion influences consumer product perception and behavioural intention, several limitations should be acknowledged.

First, although 100 valid responses were analysed across two experimental conditions, the sample was primarily composed of young, digitally active participants concentrated in urban regions of Malaysia. While this demographic is highly relevant to influencer marketing, the findings may not fully generalise to broader consumer populations. Future research could employ larger and more geographically diverse samples to strengthen external validity and improve representativeness across different consumer segments.

Second, to maintain experimental neutrality and minimise bias associated with influencer familiarity or existing brand reputation, both the influencer model and product visuals were generated using artificial intelligence (AI). Although this approach strengthened internal validity by reducing confounding influences, AI-generated stimuli may not fully reflect natural influencer content or real brand aesthetics. In real-world settings, consumers may respond differently due to parasocial relationships, prior brand experiences, or emotional attachment to familiar influencers. Future studies could replicate the design using actual influencer posts or branded products to enhance ecological realism.

Third, the experimental manipulation focused exclusively on a single visual cue, namely the presence or absence of the GMP logo, while all other visual elements were held constant. Although this controlled design allowed clear isolation of GMP effects, real influencer content typically presents multiple persuasive cues simultaneously, including endorsement tone, pricing information, customer testimonials, and additional regulatory claims. Consumer evaluations in natural contexts may therefore reflect interactive effects among multiple cues, which were beyond the scope of this study. Future research could explore combined cue environments or compare different certification logos to better capture real-world complexity. Fourth, responses were collected immediately after a single exposure to the stimulus, reflecting rapid judgement typical of social media browsing. However, this design does not capture longer-term attitude development. Consumer perceptions of credibility and safety may evolve through repeated exposure, peer discussion, or subsequent information seeking. Longitudinal or repeated-exposure designs could provide deeper insight into whether GMP effects persist over time or diminish following more deliberate evaluation.

Finally, the study focused on credibility, perceived safety, and purchase intention as core outcome variables. While these constructs represent key consumer evaluation dimensions, other psychological responses may also be relevant, including perceived brand professionalism, ethicality, product quality, and consumer scepticism. Future studies may incorporate expanded constructs and behavioural measures to provide a more comprehensive understanding of how certification cues interact with influencer behaviour to shape consumer decision-making.

Suggestions for Future Research

Future research could also investigate whether GMP cue effectiveness varies across age groups, skincare involvement levels, or prior experience with SME cosmetic brands. Comparative studies examining multiple regulatory logos, such as GMP and halal certification, may further clarify how different trust signals influence perception. Such extensions would contribute to a deeper understanding of regulatory signalling, influencer professionalism, and brand credibility within evolving digital marketing environments.

REC/01/2026 (PG/MR/49). Informed consent was obtained from all participants prior to data collection. Participation was voluntary, and respondents were assured of confidentiality and anonymity. The data collected were used solely for academic purposes.

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