

## The Effect of Social Media Marketing on Marketing Performance Mediated by Product Innovation and Ease of Use

(Study on Tempe Chips Snack Entrepreneurs in Sanan, Malang Using WhatsApp)

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### Abstract

**Introduction/Main Objectives:** This study examines how social media marketing influences marketing performance among tempe chips snack entrepreneurs in Sanan, Malang, who utilize WhatsApp, with product innovation and ease of use as mediating variables. In the digital era, social media has transformed MSME marketing from conventional face to face to efficient screen-to-face interactions, enabling wider market reach with minimal costs.

**Background Problems:** Despite social media's popularity, limited research explores its mediated effects on MSME marketing performance through product innovation and ease of use what specific relationships exist between these variables among WhatsApp using tempe chips entrepreneurs?

**Research Methods:** Quantitative approach using Structural Equation Modeling (SEM) Partial Least Squares (PLS) with SmartPLS 4.0. Data collected via Likert scale questionnaires from 70 respondents out of 400 population (17.5% sample per Arikunto, 2019), comprising primary (surveys) and secondary data (literature). Outer/inner model tests assessed validity, reliability, and hypotheses.

**Finding/Results:** Social Media Marketing significantly affects product innovation ( $T=61.112$ ,  $p=0.000$ ), ease of use ( $T=40.576$ ,  $p=0.000$ ), and marketing performance ( $T=2.695$ ,  $p=0.007$ ). Product innovation positively impacts marketing performance ( $T=3.335$ ,  $p=0.001$ ) and mediates the relationship ( $T=3.314$ ,  $p=0.001$ ), while ease of use shows no significant effect ( $T=0.521$ ,  $p=0.602$ ) or mediation. All  $R^2>0.87$  (high explanatory power);  $Q^2>0.87$  (high predictive relevance).

**Conclusion:** Social Media Marketing boosts MSME marketing performance primarily through product innovation, not ease of use. Entrepreneurs should integrate WhatsApp strategies with continuous innovation for sustained competitiveness; future research could expand samples and variables.

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**Keywords:** Social Media Marketing; Product Innovation; Ease of Use; Marketing Performance; MSMEs.



## Introduction

The marketing landscape has shifted dramatically from conventional face to face interactions to digital screen to face strategies, driven by technological advancements like web 2.0 social media platforms (Kompasiana.com,2025; BlueCreative.co.id,2024). For MSMEs, particularly tempe chips entrepreneurs in Sanan, Malang a renowned souvenir hub WhatsApp serves as a multifunctional tool for promotion, communication, and sales, expanding reach beyond local markets.

Despite social media's proven efficacy in boosting sales and brand awareness (Tuten, 2017; As'ad & Alhadid, 2014), gaps persist in understanding its mediated pathways to marketing performance via product innovation and ease of use among WhatsApp dependent MSMEs. This study addresses: (1) direct effects of social media marketing, (2) mediating roles of product innovation and ease of use and (3) implications for Sanan entrepreneurs facing dynamic consumer preferences.

## Research Methods

This quantitative study targeted 400 tempe chips entrepreneurs in Sanan using WhatsApp, sampling 70 respondents (17.5%) via purposive sampling per Arikunto (2019). Primary data came from 5 point likert scale questionnaires, secondary data from literature. Analysis employed SEM-PLS in smartPLS 4.0 testing:

1. Outer model: convergent validity (loadings>0.5), reliability (Cronbach's  $\alpha$ >0.7, CR>0.7, AVE>0.5), discriminant validity
2. Inner model:  $R^2$ ,  $Q^2$ , hypothesis testing ( $T>1.96$ ,  $p<0.05$ ).
3. Mediation via bootstrapping (5,000 subsamples).

## Result

Descriptive Statistics: All variables rated "good" (means 3.94-4.11). Social Media Marketing highest on entertainment (4.086); marketing performance on customer growth (4.00).

**Table 1. Frequency Distribution Summary**

Variable	Mean Range	Highest Indicator	Lowest Indicator
Social Media Marketing (X)	3.971-4.086	Entertainment (X1: 4.086)	Word of Mouth (X3: 3.971)
Product Innovation (Z1)	3.971-4.114	Cost Repositioning (Z13: 4.114)	Product Improvement (Z12: 3.971)
Ease of Use (Z2)	3.957-4.029	Recognition (Z21: 4.029)	Purchase Ease (Z23: 3.957)
Marketing Performance (Y)	3.943-4.000	Customer Growth (Y2: 4.00)	Market Reach (Y3: 3.943)

Source: Primary data processing, 2025

Outer Model: All loadings>0.89; CR 0.933-0.947; AVE 0.822-0.857.

Inner Model:  $R^2$  (Y:0.906, Z1:0.898, Z2:0.875—all high);  $Q^2>0.878$  (high prediction).

**Table 2. Hypothesis Testing Results**

Hypothesis	Path	T-Statistic	P-Value	Decision
H1	X→Z1	61.112	0.000	Accepted
H2	X→Z2	40.576	0.000	Accepted

Hypothesis	Path	T-Statistic	P-Value	Decision
H3	X→Y	2.695	0.007	Accepted
H4	Z1→Y	3.335	0.001	Accepted
H5	Z2→Y	0.521	0.602	Rejected
H6	X→Z1→Y	3.314	0.001	Accepted
H7	X→Z2→Y	0.522	0.602	Rejected

Source: SmartPLS 4.0 output, 2025

Present the research results neatly, completely, and systematically. Use tables, figures, and schemes that are clear, easy to read, accurate, and have sufficient resolution to visualize the findings. Each piece of data presented must be logically connected to the discussion, ensuring that the meaning and impact of the research findings can be interpreted correctly.

## Discussion

### 1. Interpretation of Descriptive Statistics

The descriptive analysis indicates that all research variables are perceived positively by respondents, with mean values ranging from 3.94 to 4.11, which fall into the “good” category. This finding suggests that respondents generally have favorable perceptions of social media marketing activities, product innovation, ease of use, and marketing performance.

In the Social Media Marketing variable, the entertainment dimension records the highest mean value (4.086). This implies that entertaining content is the most salient aspect of social media marketing for respondents, supporting the notion that engaging, enjoyable, and interactive content plays a crucial role in attracting audience attention and fostering positive brand perceptions. Conversely, the word-of-mouth indicator shows the lowest mean (3.971), indicating that although users enjoy content, they may not be equally motivated to actively share or recommend it. This suggests an opportunity for firms to design social media strategies that not only entertain but also encourage sharing and advocacy.

For Product Innovation, cost repositioning emerges as the strongest indicator (4.114), reflecting respondents' appreciation of innovations that offer better value or more competitive pricing structures. Meanwhile, product improvement has the lowest mean (3.971), suggesting that incremental improvements may be less noticeable to consumers compared to strategic innovations related to cost or positioning.

In the Ease of Use construct, recognition scores highest (4.029), indicating that respondents find the product or platform easy to recognize and understand. However, purchase ease is rated lowest (3.957), implying that while users are familiar with the product, the purchasing process itself may still present minor frictions. This highlights the importance of optimizing transactional simplicity in digital environments.

Finally, Marketing Performance is rated positively overall, with customer growth as the highest indicator (4.00). This suggests that marketing efforts are perceived as effective in expanding the customer base. However, market reach shows the lowest mean (3.943), indicating that although customer numbers are growing, the expansion into broader or new market segments may still be limited.

Social Media Marketing significantly drives product innovation (H1) via WhatsApp feedback loops for new flavors/packaging, aligning with Darma et al. (2021). It enhances ease of use (H2) through intuitive features like catalogs (Faiz, 2021), directly boosts performance (H3: Hasbiah, 2024), and product innovation mediates effectively (H6), unlike ease of use (H5, H7 rejected vs. Destiana & Handoyo, 2023). Sanan MSMEs succeed via innovation cycles, not mere platform simplicity.

## 2. Evaluation of the Measurement (Outer) Model

The outer model evaluation demonstrates excellent measurement quality. All indicator loadings exceed 0.89, indicating strong convergent validity and confirming that each indicator reliably represents its latent construct. Composite Reliability (CR) values ranging from 0.933 to 0.947 exceed the recommended threshold, reflecting high internal consistency across all constructs. Similarly, Average Variance Extracted (AVE) values between 0.822 and 0.857 confirm that the constructs explain a substantial proportion of variance in their indicators.

## 3. Evaluation of the Structural (Inner) Model

The inner model results reveal very high explanatory power. The  $R^2$  values for Marketing Performance (0.906), Product Innovation (0.898), and Ease of Use (0.875) indicate that the model explains a substantial proportion of variance in the endogenous variables. This suggests that Social Media Marketing is a dominant explanatory factor for both mediators and, directly or indirectly, for marketing performance.

Furthermore, the  $Q^2$  values exceeding 0.878 demonstrate strong predictive relevance, confirming that the model is not only explanatory but also capable of accurately predicting outcomes. These findings collectively suggest that the proposed conceptual framework is theoretically sound and empirically robust.

## 4. Discussion of Hypothesis Testing Results

The hypothesis testing results provide important insights into the relationships among the studied variables.

First, the significant positive effect of Social Media Marketing on Product Innovation (H1) and Ease of Use (H2) confirms that effective social media activities play a strategic role beyond communication. Social media functions as a channel for gathering customer feedback, identifying market trends, and stimulating innovation processes, as well as shaping perceptions of usability and accessibility. The exceptionally high T-statistics for these paths indicate that social media marketing is a powerful driver of both innovation and perceived ease of use.

Second, Social Media Marketing also has a direct positive effect on Marketing Performance (H3). This finding suggests that social media efforts contribute directly to improved performance outcomes, such as customer growth, without necessarily relying solely on intermediary variables. This aligns with the view that social media marketing can directly enhance brand visibility, customer engagement, and purchase intention.

Third, Product Innovation has a significant positive effect on Marketing Performance (H4), indicating that innovative products—particularly those offering improved value or cost repositioning—enhance competitive advantage and translate into better marketing outcomes. This finding reinforces the strategic importance of innovation as a key mechanism through which marketing efforts generate tangible performance gains.

In contrast, Ease of Use does not have a significant effect on Marketing Performance (H5). This result suggests that while ease of use is important for user acceptance, it may be perceived as a basic requirement rather than a differentiating factor. In other words, ease of use alone may not be sufficient to drive superior marketing performance when consumers already expect a certain level of usability as a standard feature.

The mediation analysis further clarifies these relationships. Product Innovation significantly mediates the relationship between Social Media Marketing and Marketing Performance (H6), indicating that social media marketing enhances performance partly by stimulating innovation that resonates with market needs. This highlights product innovation as a critical mechanism that translates social media engagement into concrete performance outcomes.

Conversely, Ease of Use does not mediate the relationship between Social Media Marketing and Marketing Performance (H7). This reinforces the earlier finding that ease of use, although influenced by social media marketing, does not significantly contribute to performance improvement in this context.

The findings contribute theoretically by demonstrating that the effectiveness of social media marketing lies not only in direct performance impacts but also in its ability to foster product innovation. From a managerial perspective, firms should prioritize social media strategies that actively support innovation processes, such as co-creation, customer feedback integration, and value-based repositioning. At the same time, ease of use should be maintained as a baseline standard rather than relied upon as a primary performance driver. Managers should focus on leveraging entertaining and engaging social media content to stimulate innovation and differentiate offerings, thereby achieving sustainable improvements in marketing performance.

## Conclusion

Social Media Marketing positively impacts marketing performance directly and via product innovation mediation among Sanan tempe chips entrepreneurs, but not through ease of use. High model fit ( $R^2=90.6\%$ ,  $Q^2=87.9\%$ ) confirms WhatsApp's strategic value when paired with innovation. Limitations include sample size; future studies should test multi platforms or longitudinal effects. MSMEs must prioritize innovative content over basic usability for competitive edge.

## Acknowledgement

Gratitude to Gajayana University supervisors, Sanan entrepreneurs, and family for their invaluable support in completing this research.

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