

MAPPING IDEA & LITERATURE FORMAT | RESEARCH ARTICLE

The Influence of Response Speed and Information Quality on the Effectiveness of SME Sales Through Facebook

Indah Ramadhani¹, D. Dailami², Mia Aulia³, Ulva Widiya⁴, Irma Yunita⁵, Ridha Nurhuda⁶, M. Mutia⁷

^{1,2,3,4,5,6,7} Department of Management, Faculty of Economy, University of Asahan, Asahan, Indonesia.

Email: indahramadhani1104@gmail.com¹, dailamidai2@gmail.com², miaauliaoppo12@gmail.com³, ulvawidiyaaas@gmail.com⁴, irmayunita020202@gmail.com⁵, ridahnuruda@gmail.com⁶, mutiasiregar2105@gmail.com⁷

ARTICLE HISTORY

Received: June 08, 2025

Revised: July 23, 2025

Accepted: July 27, 2025

DOI

<https://doi.org/10.52970/grmilf.v6i1.1377>

ABSTRACT

This study aims to study the effect of response speed and quality of information provided in the customer service system via Facebook on the effectiveness of Mama Donuts' SME sales. Data were collected through surveys and analysis using statistical methods to test the effect of each variable both partially and simultaneously. From the analysis conducted, it was found that both response speed and information quality have a positive and significant impact on sales effectiveness. Partially, it was found that with a faster response time, better information to help answer questions significantly increased sales effectiveness with a significant value (sig) of less than 0.05. Simultaneously, both variables have a strong influence with a correlation coefficient value of 0.906 and an R² of 81.6%. This means that these variables can explain most of the variability in the effectiveness of Mama Donuts' SME sales. These results strengthen the argument that faster responses and better information quality positively impact Facebook sales effectiveness, thus providing a sales performance strategy for SMEs.

Keywords: Response Speed, Information Quality, Sales Effectiveness, Facebook.

I. Introduction

Micro, Small, and Medium Enterprises (SMEs) are highly strategic in supporting the national economy. Data from the Ministry of Cooperatives and SMEs shows that SMEs contribute more than 60% to Indonesia's Gross Domestic Product (GDP) and absorb around 97% of the national workforce. This vital role makes SMEs the backbone of the economy, especially when facing global uncertainty and technological disruption. However, in the era of digitalization and increasingly complex global competition, SMEs face the challenge of maintaining their sales effectiveness. One widely adopted solution is integrating information technology, particularly social media, as a means of promotion and customer service. Facebook is one of SMEs' most utilized social media platforms due to its relatively low cost and broad interactive reach. However, simply having a business account does not guarantee the success of digital strategies. Two key aspects that affect the effectiveness of digital services are response speed to customers and the quality of the information provided. Response speed plays a role in accelerating consumer decision-making processes. Meanwhile, accurate, relevant information can increase customer trust in the product. Findings from Putra and Irmawati (2020) indicate that quick responses on social media significantly influence repeat purchase intentions of SME

consumers. Meanwhile, research by Gunanjar et al. (2021) and Elizabeth et al. (2022) shows that information quality significantly affects positive consumer perceptions and purchasing decisions.

Mama Donuts SME, a culinary business, has implemented digital marketing and interaction strategies via Facebook. Although the strategy is already in place, no specific study has examined the influence of response speed and information quality on sales effectiveness in this SME. This indicates a research gap that needs to be addressed, especially in a local context and through a case study approach. This study is original because it focuses on directly evaluating digital customer service in SMEs based on social media, with a specific case study of Mama Donuts. It fills a gap in the existing literature and offers a new perspective on optimizing social media for sustainable SME sales. This study aims to analyze simultaneously and partially the effect of response speed and information quality on the sales effectiveness of Mama Donuts SME through Facebook. The results of this study are expected to serve as a reference in developing adaptive digital service strategies based on customer needs, as well as providing practical implications for other SME actors and the formulation of supportive policies in the digital era.

II. Literature Review and Hypothesis Development

In the digital marketing era, responsiveness and information quality are critical factors shaping consumer satisfaction and purchasing behavior. According to Zeithaml et al. (2006), service responsiveness reflects the willingness to help customers and provide prompt service. In the context of social media, a fast response can build trust and influence consumer decisions more efficiently. Moreover, the quality of information—defined as the accuracy, completeness, relevance, and timeliness of information—can significantly impact consumer perceptions (Chae et al., 2002). High-quality information helps consumers reduce uncertainty and make informed decisions, ultimately increasing sales effectiveness. Findings from Putra and Irmawati (2020) indicate that response speed positively influences repurchase interest among SME consumers. Similarly, research by Gunanjar et al. (2021) and Elizabeth et al. (2022) highlights the strong correlation between information quality and positive consumer perception and decision-making. Despite numerous studies on digital marketing strategies for SMEs, limited research explicitly investigates the combined influence of response speed and information quality on sales effectiveness in individual SMEs using Facebook. This study aims to fill this gap by focusing on Mama Donuts, a local SME in the culinary sector.

- H1: Response speed has a significant positive effect on the sales effectiveness of Mama Donuts SME through Facebook
- H2: Information quality has a significant positive effect on the sales effectiveness of Mama Donuts SME through Facebook
- H3: Response speed and information quality significantly positively affect Mama Donuts SME's sales effectiveness through Facebook.

III. Literature Review and Hypothesis Development

3.1. Research Stages

This study employs an associative quantitative approach aiming to measure the extent to which the variables of response speed (X1) and information quality (X2) influence sales effectiveness (Y) of the Mama Donuts SME through the Facebook social media platform. The research was conducted in the following stages:

- a. Identifying the research problem and formulating research objectives
- b. Conducting a literature review to examine theories related to response speed, information quality, and sales effectiveness in SMEs through social media

- c. Designing the research instrument in the form of a questionnaire based on indicators for each variable
- d. Collecting data through an online questionnaire distributed via Google Form
- e. Processing and analyzing the data using SPSS version 26, including validity and reliability tests, multiple linear regression, t-test, F-test, and coefficient of determination
- f. Concluding and preparing the final research report

These stages were carried out systematically to ensure the measurability and reliability of the analysis results.

3.2. Research Location and Time

This research was conducted at the Mama Donuts SME, located at Jl. Jend. Sudirman No.2 KM 1, Karya Subdistrict, South Tanjungbalai District, Tanjungbalai City. The data collection took place in April 2025, focusing on customer service activities and digital marketing through Facebook.

3.3. Research Stages

The population in this study includes all Mama Donuts consumers who have interacted with or made purchases through Facebook. The sampling technique used was purposive sampling, with the following criteria: (1) Respondents must have purchased a Mama Donuts product via Facebook at least once in the past six months, (2) must have interacted through chat or comments with the official Mama Donuts account, and (3) must be at least 17 years old.

3.4. Research Variables and Operationalization

This study involves two independent variables and one dependent variable. The operational definitions and indicators of each variable are detailed in Table 1 below:

Table 1. Operationalization of Research Variables

Variables	Indicator	Source
response speed (X1)	Quick response to questions, clarity of response time, consistency of response speed	(Vio Ardana Listyandita Putra & Irmawati, 2024)
Information Quality (X2)	Clarity of information, completeness, accuracy, and relevance of product information	(Elizabeth et al., 2024)
Sales Effectiveness (Y)	Frequency of repeat purchases, increased transaction volume, and perceived satisfaction with service	(Drummond et al., 2020)

3.5. Data Collection Technique

This research adopts a quantitative approach using a survey method to collect primary data from consumers of SME Mama Donuts who actively engage in transactions or interactions via Facebook. Data was collected through an online questionnaire distributed via Google Forms from June to July 2025. This period was chosen because it coincides with Mama Donuts' active promotional phase, allowing the researcher to capture timely customer experiences with the digital services. The sampling technique used was purposive sampling, with the following criteria:

- a. Respondents must be at least 17 years old,
- b. Must have purchased Mama Donuts products at least once in the last three months,
- c. Must be aware of or have accessed Mama Donuts' official Facebook account.

These criteria were selected based on the literature on digital customer loyalty and to ensure the alignment between the target population and research focus. A total of 100 respondents was targeted to ensure adequate statistical power for multiple linear regression analysis (Hair et al., 2010). The questionnaire was widely distributed to address non-response bias, and reminders were periodically sent. The research instrument was constructed based on theoretical indicators for each variable, namely:

- a. Response Speed (X1): promptness in replying to questions, handling complaints, and order confirmation time (Zeithaml et al., 2006),
- b. Information Quality (X2): completeness of product descriptions, accuracy of prices and stock, and consistency of Facebook content (Chae et al., 2002),
- c. Sales Effectiveness (Y): increased online sales, repeat purchase frequency, and customer satisfaction (Kotler & Keller, 2016).

Before full distribution, the questionnaire was pre-tested with 15 respondents who shared similar characteristics to evaluate the clarity and content validity of the instrument. Construct validity was tested through Exploratory Factor Analysis (EFA) using Principal Component Analysis (PCA) with varimax rotation, while reliability was measured using Cronbach's Alpha with a threshold of ≥ 0.70 . Valid and reliable data were then analyzed using inferential statistics.

3.6. Data Analysis Technique

The collected data were processed and analyzed using SPSS version 26. Before the primary analysis, a data cleaning phase was conducted to identify and handle missing values and outliers and ensure that the dataset met fundamental statistical assumptions. The data analysis procedures involved the following stages:

- a. Validity and Reliability Tests: Validity was assessed through Exploratory Factor Analysis (EFA) to confirm whether indicators align with the intended theoretical constructs. Reliability was tested using Cronbach's Alpha, with a minimum threshold of 0.70.
- b. Multiple Linear Regression Analysis: This method assessed independent variables' simultaneous and partial influence (X1 and X2) on the dependent variable (Y). This test was chosen due to its appropriateness in analyzing causal relationships among multiple predictors and an outcome variable.
- c. t-Test (Partial Effect): Conducted to examine the individual effect of each independent variable. The underlying assumptions tested included normal residuals and the absence of multicollinearity.
- d. F-Test (Simultaneous Effect): Applied to determine the collective significance of both X1 and X2 on Y.
- e. Coefficient of Determination (R^2): Used to assess the proportion of variance in the dependent variable that the independent variables can explain.

IV. Results and Discussion

4.1. Multiple Linear Regression Analysis Results

This study employed multiple linear regression analysis to examine the effect of response speed (X1) and information quality (X2) on sales effectiveness (Y) of the SME Mama Donuts. According to Sarwono (2019), multiple linear regression is an analytical technique used to simultaneously determine the influence of two or more independent variables on a dependent variable. Before the analysis, the researcher ensured that the

basic regression assumptions, such as residual normality, absence of multicollinearity, and homoscedasticity, were tested and met. This is crucial to ensure the validity of the regression results. The following table presents the results of the multiple linear regression analysis:

Table 2. Multiple Linear Regression Analysis Results

Model	Unstandardized Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t	Sig.
(Constant)	3.230	0.992	–	3.257	0.002
Response Speed (X1)	0.534	0.104	0.588	5.112	0.000
Information Quality (X2)	0.322	0.110	0.336	2.922	0.004

The resulting regression equation is:

$$Y = 3.230 + 0.534X_1 + 0.322X_2$$

Explanation:

- The constant value of 3.230 indicates that if X1 and X2 are zero, the sales effectiveness is estimated to be 3.230.
- The regression coefficient for X1 (response speed) is 0.534, meaning that for every one-unit increase in response speed, sales effectiveness increases by 0.534 units.
- The regression coefficient for X2 (information quality) is 0.322, indicating that for every one-unit increase in information quality, sales effectiveness increases by 0.322 units.

Statistically, both independent variables show significant influence, as their significance values are less than 0.05. These results suggest that faster responses to consumers on social media have a greater impact on sales than merely providing product information, though both are important.

4.2. Multiple Correlation Analysis

Table 3. Multiple Correlation (R)

Model	R
1	0.906

The multiple correlation coefficient (R) of 0.906 indicates a powerful and positive relationship between the response speed and information quality variables on sales effectiveness. Sugiyono (2019) states that R values between 0.80 and 1.00 fall under the "powerful" category. However, it should be noted that correlation does not imply causation. Hence, although the relationship is strong, it does not mean increased sales are solely caused by response speed and information quality. Contextually, these results indicate that in the digital marketing era, consumers are more loyal and likely to make repeat purchases if they feel promptly served and receive accurate, reliable information.

4.3. Coefficient of Determination Test

Table 4. Coefficient of Determination Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.906	0.820	0.816	1.498

The R Square value of 0.820 indicates that the combination of response speed and information quality variables can explain 82% of the variation in sales effectiveness. The remaining 18% is influenced by other

factors not examined in this study, such as pricing, promotions, local competitors, and other external influences. The Adjusted R^2 value of 0.816 adjusts the R^2 by considering the number of independent variables used. This is important because the more predictors included in a model, the more artificial the R^2 may be. Adjusted R^2 thus provides a more objective accuracy of the model in explaining the data.

4.4. Partial Significance Test (t-Test)

Partial significance testing is used to determine the individual influence of each independent variable on sales effectiveness. Based on Table 1:

- The t-value for response speed (X1) is 5.112 with a significance level 0.000.
- The t-value for information quality (X2) is 2.922 with a significance level of 0.004.

Since both sig values < 0.05:

- H1 is accepted: Response speed has a positive and significant partial effect on sales effectiveness.
- H2 is accepted: Information quality also has a positive and significant partial effect on sales effectiveness.

Practically, this indicates that improving the quality of digital interaction both personally (speed) and professionally (accurate information) will drive increased sales.

4.5. Simultaneous Significance Test (F-Test)

Table 5. ANOVA F-Test Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	841.137	2	420.569	187.340	0.000
Residual	184.086	82	2.245		
Total	1025.224	84			

Based on Table 5:

- F-calculated = 187.340 > F-table = 1.662, thus H_0 is rejected and H_3 is accepted.
- Significance value = 0.000 < 0.05, which supports the decision that the regression model is simultaneously significant.

The F-test assumes that the residuals are normally distributed and have equal variance (homoscedastic). The researcher has conducted assumption testing in advance to validate this test. These findings support the idea that both independent variables jointly contribute significantly to sales effectiveness and align with the objectives of this study.

4.6. Discussion of Results

The findings reinforce previous studies by Putra & Irmawati (2024) and Elizabeth et al. (2024), which state that prompt responses to customers and high-quality information on digital media are key determinants of successful SME product marketing. The strong correlation and significant F-test results suggest that both variables should be integrated into digital marketing strategies to build an effective and adaptive customer service system.

Practically, Mama Donuts SME can enhance its sales effectiveness by:

- a. Providing an active admin to respond quickly and politely to messages.
- b. Delivering complete, up-to-date, and factual product information.
- c. Utilizing Facebook features effectively to reach a broader range of consumers.

V. Conclusion

The results of this study indicate that response speed in customer service via Facebook social media has a positive and significant effect on the sales effectiveness of UMKM Mama Donuts. A quick response reflects the readiness and alertness of business actors to address customer needs and inquiries in real time. In the context of social media, customers expect instant interaction. Therefore, a fast response creates an impression of professionalism and enhances consumer trust. This finding is consistent with (Vio Ardana Listyandita Putra & Irmawati, 2024), who stated that service speed significantly contributes to repurchase intention. Customers who feel promptly attended to tend to have a positive experience and show loyalty to the brand, directly influencing sales effectiveness. Moreover, the quality of digital information also positively and significantly affects sales effectiveness. Clear, complete, accurate, and relevant information helps consumers understand the product thoroughly before making a purchase decision. In digital communication, information serves as a substitute for physical product experience. Hence, inaccurate or incomplete information can reduce buying interest. This is supported by the study (Elizabeth et al., 2024), which emphasized that information quality plays a vital role in shaping positive customer perceptions and influencing purchasing decisions. High-quality information reduces doubt and increases customer confidence, directly supporting sales effectiveness. Simultaneously, response speed and information quality have a powerful and significant effect on sales effectiveness, as indicated by the coefficient of determination value of 81.6%. This means these two variables can explain nearly all variations in sales effectiveness. The combination of fast response and high-quality information creates a customer experience that is swift, informative, and satisfying. A fast service without sufficient information, or vice versa, will not be effective. Therefore, integrating these two variables forms a comprehensive and high-performing service system. This demonstrates that a responsive and informative digital service strategy is a key factor influencing the sales performance of SMEs on social media platforms.

References

- Drummond, C., O'Toole, T., & McGrath, H. (2020). Digital engagement strategies and tactics in social media marketing. *European Journal of Marketing*, 54(6), 1247–1280. <https://doi.org/10.1108/EJM-02-2019-0183>
- Dwiyanti, N. K. A. S., & Yulianti, I. (2024). Pengaruh social media marketing dan service quality terhadap consumer purchase decision. *Jurnal Manajemen Pemasaran dan Perilaku Konsumen*, 3(2), 373–385. <https://doi.org/10.21776/jmppk.2024.03.2.10>
- Elizabeth, E., Azlina, Y., Nurofik, A., Jodi, U. W. G. A. S., & Setianti, Y. (2024). Pengaruh kualitas produk, kualitas layanan dan social media marketing terhadap keputusan pembelian. *Jurnal Manajemen Kewirausahaan dan Teknologi*, 1(3), 98–110. <https://doi.org/10.61132/jumaket.v1i3.322>
- Gunanjar, G., Maulidan, R., Verinanda, M. R., Syahputra, R., Sari, M. R., & Zubir, Z. (2025). Terhadap kepuasan konsumen pembelian online produk., 7083(1), 445–451.
- Putra, V. A. L., & Irmawati. (2024). Pengaruh penggunaan media sosial dan kualitas pelayanan terhadap minat pembelian ulang pada UMKM di Surakarta dengan kepuasan konsumen sebagai variabel mediasi. *Hirarki: Jurnal Ilmiah Manajemen dan Bisnis*, 6(2), 35–54. <https://doi.org/10.30606/4r9fyx17>
- Restanti, Y. D. (2023). Efektivitas pemanfaatan media sosial Facebook dalam meningkatkan volume penjualan: Studi pada UMKM Permen Tape "Rezeki" Ngadiluwih. *JUMBA (Jurnal Manajemen, Bisnis, dan Akuntansi)*, 2(1), 84–97. Retrieved from <http://jurnal.updkediri.ac.id/index.php/jumba/article/view/40>

- Sahputra, A., & Darmawan, B. A. (2023). Faktor-faktor teknologi dalam adopsi media sosial dan dampaknya bagi kinerja UMKM. *Selma: Manajemen Jurnal Mahasiswa Bisnis dan Manajemen*, 2(1), 55–68. Retrieved from <https://journal.uii.ac.id/selma/index>
- Sarwono, J. (2019). Metode penelitian kuantitatif dan kualitatif. 11(1), 1–14. Retrieved from <http://scioteca.caf.com/bitstream/handle/123456789/1091/RED2017-Eng-8ene.pdf>
- Sugiyono. (2012). *Metode Penelitian Kuantitatif Kualitatif dan R&D*. Bandung: Alfabeta