

## The Effectiveness of Digital Marketing in Increasing Sales of MSME Products in Balikpapan

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### **Abstract**

This study analyzes the effectiveness of digital marketing in improving the sales performance of Micro, Small, and Medium Enterprises (MSMEs) at the East Kalimantan MSME Gallery in Balikpapan. A mixed-method approach is employed, combining quantitative and qualitative analyses. The sample consists of 30 MSMEs, divided equally into 15 digital-based and 15 non-digital businesses, selected through purposive sampling. Quantitative data are analyzed using simple linear regression with Stata software, while qualitative insights are used to enrich the interpretation of the findings. The results indicate that digital marketing effectiveness has a positive and statistically significant impact on MSME sales performance, with a regression coefficient of 0.729 and an R<sup>2</sup> value of 0.8042, meaning that 80.42% of the variation in sales performance is explained by digital marketing effectiveness. Qualitative findings further reveal that MSMEs adopting digital platforms benefit from broader market access, increased customer reach, and stronger brand recognition. Overall, the study concludes that digital marketing plays a vital role in enhancing MSME competitiveness and supporting sustainable regional economic growth.

### **Keywords:**

Digital marketing, MSMEs, sales performance, mixed method, economic resilience

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## INTRODUCTION

The rapid expansion of digital technology has significantly transformed business practices, particularly in the adoption of e-commerce among enterprises. Across Indonesia, the integration of digital platforms into business operations has become a key indicator of competitiveness and market accessibility. However, the level of digital adoption varies across regions, reflecting differences in infrastructure readiness, digital literacy, and business adaptability. In the Kalimantan region, these disparities are evident in the proportion of businesses that have adopted e-commerce compared to those that still rely on conventional methods. Therefore, examining provincial-level data on e-commerce adoption provides important insights into the digital readiness of businesses and highlights regions with strong potential for further digital marketing development.

**Table 1. Percentage of Number of E-Commerce Businesses**

Province	Number of E-commerce	Percentage of E-commerce Businesses	Percentage of Non-E-commerce Businesses
West Kalimantan	40379	40,02	59,98
Central Kalimantan	30937	35,01	64,99
South Kalimantan	67637	43,43	56,57
East Kalimantan	89411	50,61	49,39
North Kalimantan	18265	39,03	60,97

Source: Badan Pusat Statistik (2025)

Recent data reveal substantial disparities in e-commerce adoption across provinces in Kalimantan, reflecting uneven levels of digital transformation among businesses. East Kalimantan records the highest number of e-commerce businesses, with 89,411 units, accounting for 50.61% of total businesses, exceeding the proportion of non-e-commerce businesses (49.39%). This figure is significantly higher than in other provinces such as South Kalimantan (43.43%), West Kalimantan (40.02%), Central Kalimantan (35.01%), and North Kalimantan (39.03%). These findings indicate that East Kalimantan has reached a relatively advanced stage of digital adoption, making it a relevant empirical setting to assess whether higher digital adoption translates into improved MSME performance. However, the extent to which digital marketing effectiveness contributes to business outcomes at the micro level remains insufficiently explored.

The City of Balikpapan, being a key urban center in East Kalimantan, serves an important function as a center for trade, services, and distribution activities. The East Kalimantan MSME Gallery enhances the city's role as a hub for marketing and promoting regional flagship products. Among the different MSME sectors, local traditional snack items and fashion stand out as two industries with significant economic potential, owing to their wide consumer base, interest from both locals and migrants, and possibilities for growth in regional and national markets.

Micro, Small, and Medium Enterprises (MSMEs) are commonly acknowledged as essential contributors to economic development, job creation, and income equity. In Indonesia, MSMEs are legally categorized according to Law No. 20 of 2008 based on asset ownership, revenue, and workforce size. Apart from their role in Gross Domestic Product (GDP), MSMEs also serve as tools for local economic empowerment and community-driven development (OECD, 2020). In Balikpapan, the snack and fashion MSMEs play a significant role in the economy while also preserving cultural identity and generating local employment. Nonetheless, MSMEs often encounter structural limitations like inadequate funding, limited market reach, management

deficiencies, and minimal technology adoption, which can diminish competitiveness (Tambunan, 2019).

The connection between the adoption of digital marketing and the performance of MSMEs can be understood from a theoretical perspective using various complementary frameworks. The Resource-Based View (RBV), proposed by Jay Barney, highlights that a company's performance is influenced by the optimal use of its internal resources and capabilities (Barney, 1991). In this regard, digital marketing skills—like content development, platform oversight, and digital customer interaction—serve as strategic intangible resources that can provide competitive benefits for MSMEs. Additionally, David Teece's Dynamic Capabilities Theory emphasizes the significance of a company's capacity to adjust, combine, and reorganize its skills in reaction to swiftly evolving surroundings (Teece, 2007). This is especially important considering the rapidly changing dynamics of social media algorithms, consumer tastes, and digital competition. Moreover, the Technology Acceptance Model (TAM), created by Fred Davis, indicates that the adoption and effective utilization of digital marketing tools are affected by perceived usefulness and perceived ease of use (Davis, 1989). These elements are tightly connected to the degree of digital literacy among MSME participants, which ultimately influences their capacity to utilize digital platforms effectively. Consequently, the success of digital marketing is not just based on its implementation, but also on the company's ability to strategically leverage and consistently adjust digital tools to improve business outcomes

The swift evolution of information and communication technology has significantly changed marketing approaches. Digital marketing involves promotional efforts carried out through digital technologies and online platforms to engage with consumers and advertise products. In contrast to traditional marketing, digital marketing offers greater interactivity, measurability, and the ability to effectively target larger audiences (Tiago & Veríssimo, 2014). Important platforms consist of social media like Instagram, TikTok, and Facebook for interaction and branding; e-commerce sites such as Shopee and Tokopedia for organized transactions; and websites optimized with search engine optimization (SEO) to boost visibility and trustworthiness. Digital marketing offers benefits regarding cost effectiveness, quantifiable performance metrics, and market growth (Dwivedi et al., 2021). Its success, however, relies significantly on digital literacy, strategic coherence, and management skills.

Even with its possibilities, not every MSME in Balikpapan has fully leveraged digital marketing. Certain companies actively utilize social media, online marketplaces, and SEO techniques to broaden their market presence and enhance brand recognition. Some still depend mainly on traditional methods, including direct advertising, offline gallery promotion, and established client connections. These distinctions in marketing approaches are probable to create diverse effects on sales outcomes and business expansion (Dwivedi et al., 2021).

The years 2020 to 2025 mark a notably crucial time, including the COVID-19 pandemic and the following economic recovery. Throughout the pandemic, digital adoption surfaced as a flexible approach to maintain business operations in light of mobility limitations and reduced in-person transactions (OECD, 2020). In terms of economic diversification, boosting digital-based MSMEs aids in minimizing reliance on restricted sectors and improves regional economic resilience to external shocks (World Bank, 2020). Economic resilience denotes a region's capacity to endure and bounce back from economic disturbances while sustaining its potential for long-term growth (OECD, 2020). In this regard, the success of digital marketing can be assessed using metrics like revenue increase, sales figures, customer growth, and brand recognition.

Earlier research typically supports that digital marketing has a beneficial effect on the performance and market growth of MSMEs (Tiago & Verissimo, 2014; Dwivedi et al., 2021). Nonetheless, constrained resources, inadequate understanding, and absence of strategic determination often obstruct optimal adoption in small businesses (Tambunan, 2019).

Drawing from these theoretical and empirical insights, this research aims to evaluate the effectiveness of digital marketing for MSMEs in Balikpapan, especially in the local snack and fashion industries during the 2020–2025 timeframe. This study contrasts MSMEs that have successfully embraced digital marketing with those that have not, differing from previous research, thus enhancing academic debate and providing practical insights for local government initiatives aimed at bolstering MSME-led digital economic growth.

## METHODS

This research utilized a mixed-method strategy combining descriptive qualitative analysis and quantitative statistical analysis to thoroughly investigate the impact of digital marketing on MSME sales performance. This methodology aligns with the mixed methods concept proposed by John W. Creswell, which emphasizes the integration of qualitative and quantitative data to achieve a more comprehensive understanding of research problems (Creswell & Plano Clark, 2018). Specifically, this study adopted a convergent mixed-method design, in which qualitative and quantitative data were collected and analyzed in parallel, and subsequently integrated during the interpretation stage. The integration was conducted using a triangulation approach, where qualitative findings were used to explain, validate, and enrich the statistical relationships identified in the quantitative analysis.

The quantitative aspect employed both descriptive and inferential statistical methods. A descriptive analysis was performed to provide a summary of MSME characteristics, the extent of digital marketing use, and sales performance patterns from 2020 to 2025. This phase involved calculating average sales increases, revenue percentage shifts, and customer growth rates to illustrate overall performance trends between MSMEs that implement digital marketing and those that do not, as recommended by Douglas A. Lind et al. (2017).

Afterward, a comparative analysis was conducted to identify differences in turnover, sales volume, customer growth, and brand awareness between digital and non-digital MSMEs. Inferential statistical testing was applied to assess the statistical significance of these differences. In addition, simple linear regression analysis was used to examine the effect of perceived digital marketing effectiveness on MSME sales performance.

It is important to note that the quantitative analysis was based on a relatively small sample size ( $n = 30$ ). While this may limit the generalizability of the findings, the use of a mixed-method approach helps to strengthen the study by providing contextual depth through qualitative insights. In line with mixed-method research principles, qualitative data play a crucial role in enhancing the interpretation and robustness of statistical findings, particularly in studies with limited sample sizes.

The quantitative statistical analysis was conducted to empirically test the research hypotheses and to measure the magnitude of the relationship between perceived digital marketing effectiveness and MSME sales performance. The analysis began with descriptive statistics to summarize the distribution, central tendency, and variation of the research variables. This was followed by classical assumption testing to ensure that the regression model met the requirements of normality and homoskedasticity. Subsequently, simple linear regression analysis was applied to

determine the direction and strength of the influence of the independent variable on the dependent variable.

### **Independent Variable (X): Perceived Effectiveness of Digital Marketing**

Measured through indicators such as platform usage intensity, customer interaction, promotional reach, and digital engagement.

### **Dependent Variable (Y): MSME Sales Performance**

Measured through: Revenue growth, Sales volume, Customer growth and Brand awareness.

Each variable score is calculated as the average of Likert-scale responses:

$$X = \frac{\sum Xi}{n}$$

$$Y = \frac{\sum Yi}{n}$$

X = perceived digital marketing effectiveness

Y = MSME sales performance

$\sum Xi$  = the total score of all indicators of variable X

$\sum Yi$  = The total score of all indicators of variable Y

n = number of items per variablevariabel

Simple linear regression analysis was conducted to examine the effect of perceived digital marketing effectiveness on the sales performance of MSMEs using the statistical software Stata. The regression model applied in this study is formulated as follows:

$$Y = \alpha + \beta X$$

Where:

Y = MSME sales performance

X = Perceived effectiveness of digital marketing

$\alpha$  = Constant

$\beta$  = Regression coefficient

## **RESULT AND DISCUSSION**

The qualitative results show distinct differences in perceptions, experiences, and challenges between MSMEs that engage in digital marketing and those that do not. MSMEs that utilize digital marketing platforms like Instagram, TikTok, Shopee, and Tokopedia usually experienced expanded market reach, enhanced customer engagement, and increased sales prospects. Numerous participants noted that social media platforms allowed them to engage directly with customers, obtain prompt feedback, and enhance brand recognition. They stressed that digital platforms enabled them to broaden their market beyond Balikpapan and East Kalimantan, connecting with clients from different areas.

In contrast, MSMEs that did not effectively utilize digital marketing indicated restrictions in market growth and depended significantly on traditional sales techniques like physical stores and word-of-mouth advertising. These companies recognized that although digital marketing offers potential advantages, they encountered challenges such as inadequate digital skills, a lack of time for managing online platforms, and limited understanding of content creation and online promotion tactics. Additionally, participants underscored various essential factors for effective digital marketing execution, such as regular content posting, use of promotional tools (like paid advertisements and marketplace initiatives), and promptness in addressing customer questions.

Conversely, frequent challenges noted involved fierce online rivalry, alterations to algorithms on social media sites, and the necessity for ongoing content creativity.

In general, the qualitative evidence corroborates the quantitative results by showing that the adoption of digital marketing not only affects sales performance but also improves brand visibility, customer engagement, and business sustainability. Nevertheless, the success mainly relies on the MSME’s ability to strategically handle digital resources and adjust to changing online market conditions. Customer expansion was also notably higher within digital MSMEs thanks to interactive communication, easier access to information, and online reviews that boosted consumer confidence. These businesses managed to draw in clients not just from Balikpapan but also from surrounding areas. On the other hand, non-digital MSMEs saw relatively slow customer growth and continued to rely on faithful local customers. In terms of brand awareness, social media and websites significantly enhanced brand recognition by utilizing visual content, storytelling, and consistent promotions. MSMEs involved in digital marketing gained greater visibility, extending their reach beyond the gallery setting. In comparison, non-digital MSMEs often had restricted public recognition even though they provided quality goods. These qualitative results offer contextual backing for the ensuing quantitative regression analysis, strengthening the claim that the use of digital marketing significantly enhances MSME sales.

### Quantitative Results

Before moving on to hypothesis testing and interpreting the regression coefficients, it is crucial to confirm that the estimated model adheres to the basic classical assumptions that underpin linear regression analysis. Meeting these assumptions guarantees that the parameter estimates remain unbiased, consistent, and efficient, thus improving the validity and reliability of the empirical results. Thus, a set of traditional assumption evaluations was performed to verify the suitability and correctness of the regression model utilized in this research.

### Tests of Classical Assumptions

The traditional assumption tests performed in this research were confined to the normality test and the heteroskedasticity test. This constraint is supported by the application of a basic linear regression model that includes just one independent variable. Consequently, the multicollinearity test was unnecessary since it aims to identify linear associations among several independent variables, but this research utilized only one explanatory variable. Moreover, the autocorrelation test was not conducted since the data utilized in this research were cross-sectional, gathered at one specific point in time rather than being time-series data. Autocorrelation testing is typically used on time-series data to analyze the correlation of residuals across various time frames. Thus, the traditional assumption testing in this research was deemed adequate by performing normality and heteroskedasticity tests aligned with the features of the simple linear regression model utilized.

### Normality Assessment

The normality test was conducted to assess if the residuals of the regression model followed a normal distribution. The Shapiro–Wilk test was used since the sample consisted of less than 50 participants, as this technique is regarded as more effective at identifying departures from normality in smaller samples.

**Table. 2. Uji Normality Test**

Variable	W	Prob > z
Residual	0.96281	0.68482

Source: Processed using Stata

Based on the Shapiro–Wilk test results, the probability value obtained was 0.68482. Since this value is greater than the 0.05 significance level ( $0.68482 > 0.05$ ), it can be concluded that the residuals in the regression model are normally distributed. Therefore, the normality assumption has been fulfilled, and the regression model is appropriate for further analysis

**Heteroskedasticity Test**

The heteroskedasticity test was conducted to determine whether there was inequality in the variance of the residuals in the regression model. A good regression model should not exhibit heteroskedasticity, meaning that the residual variance remains constant (homoskedasticity). In this study, the Breusch–Pagan/Cook–Weisberg test was applied with a 5% significance level.

**Table 3. Heteroskedasticity Test Results**

Test	Chi-Square	Prob > Chi2	Remark
Breusch-Pagan Test	1.87	0.1713	No heteroskedasticity detected

Source: Processed using Stata

The test results show a probability value of 0.1713. Since this value exceeds the 0.05 significance level ( $0.1713 > 0.05$ ), it can be concluded that the regression model does not suffer from heteroskedasticity. Thus, the residual variance is homogeneous, and the regression model satisfies the required classical assumptions.

**Simple Linear Regression Analysis**

Simple linear regression analysis was employed to examine the effect of perceived digital marketing effectiveness on MSME sales performance. In this study, the independent variable was perceived digital marketing effectiveness (X), while the dependent variable was MSME sales performance (Y). The results of the regression analysis using Stata are presented in Table 3.

**Table 4. Results of Simple Linear Regression Analysis**

Variable	Coefficient	Std.error	t-stat	Sig. (P>  t )
X	0.7295	0.0929	7.85	0.000
Constant	1.1322	0.3971	2.85	0.012
Prob > F	0.0000			
R-squared	0.8042			
Adj R-squared	0.7912			

Source: Processed using Stata

Based on the regression results, the estimated regression equation is formulated as follows:

$$Y = 1.132 + 0.729X$$

The fixed value of 1.132 suggests that when the perceived impact of digital marketing is zero, the sales performance of MSMEs is projected to be 1.132 units. The regression coefficient of 0.729 indicates a positive correlation between perceived digital marketing effectiveness and sales performance in MSMEs. This suggests that a one-unit rise in perceived digital marketing effectiveness results in a 0.729 unit increase in MSME sales performance. The significance value of the independent variable is 0.000, which is below the 0.05 significance threshold, suggesting that perceived digital marketing effectiveness positively and significantly impacts MSME sales performance.

The results of simple linear regression analysis show that perceived effectiveness of digital marketing significantly impacts sales performance in MSMEs. This indicates that as MSME owners

view the effectiveness of digital marketing more favorably, their business sales performance improves. These findings strengthen the modern marketing viewpoint that highlights the strategic significance of leveraging digital technology to boost business competitiveness.

Additionally, the findings affirm that digital marketing has become a strategic essential rather than an optional tool for MSMEs. Its influence goes beyond boosting sales to enhancing brand reputation and promoting business sustainability. Nonetheless, the impact of digital marketing continues to be shaped by internal aspects like digital literacy, management dedication, innovation, and favorable government regulations. For non-digital MSMEs, the key obstacles extend beyond technological access and also encompass a conventional business mentality. Nonetheless, with governmental backing and resources like the East Kalimantan MSME Gallery in Balikpapan, chances for enhancement are still considerable. In summary, the findings of this research confirm that digital marketing is highly effective in boosting revenue, sales volume, customer growth, and brand recognition among MSMEs, especially those linked to the East Kalimantan MSME Gallery in Balikpapan.

## Discussion

This study aims to analyze the impact of perceived digital marketing effectiveness on MSME sales performance using a mixed methods approach. The results of the quantitative analysis indicate that perceptions of digital marketing effectiveness have a positive and statistically significant impact on MSME sales performance. The regression analysis indicates that increased perceptions of digital marketing effectiveness result in a significant increase in sales performance, as evidenced by a coefficient value of 0.729 and a significance level well below the 0.05 threshold. Furthermore, the high R-squared value indicates that digital marketing effectiveness explains the majority of the variation in MSME sales performance (Sharabati et.al 2024).

These quantitative findings are strongly supported by qualitative results. MSMEs that actively utilize digital marketing platforms such as Instagram, TikTok, Shopee, and Tokopedia report broader market reach, increased customer interaction, and increased sales opportunities. This alignment between quantitative and qualitative evidence reinforces the robustness of the findings, indicating that digital marketing is not only statistically significant but also has a practical impact in real business contexts.

Deeper qualitative insights further enhance understanding by emphasizing how digital marketing impacts sales outcomes. Increased customer engagement, direct response, and enhanced brand recognition are recognized as key factors contributing to improved performance. These factors help MSMEs build stronger relationships with customers, which in turn increases trust and higher purchasing decisions. Furthermore, the ability to reach consumers beyond local geographic boundaries demonstrates how digital marketing reduces the market barriers typically faced by MSMEs.

However, the findings also reveal that the benefits of digital marketing are not automatically realized. Several challenges were identified, including limited digital skills, time constraints, and difficulties in content creation and platform management. These barriers suggest that while digital marketing has strong potential, its effectiveness depends on the capability of MSMEs to strategically utilize digital tools. This nuance is important, as it indicates that the relationship observed in the regression model may be influenced by varying levels of digital competency among MSMEs (Landjohou & Christopher, 2026).

Furthermore, intense competition in online marketplaces and frequent changes in platform algorithms present ongoing challenges. MSMEs must continuously adapt their strategies, maintain content consistency, and leverage promotional features such as paid advertisements to remain competitive. This dynamic environment implies that digital marketing effectiveness is not static but requires continuous learning and adaptation.

From a theoretical perspective, these findings are consistent with the Resource-Based View (RBV) proposed by Jay Barney, which posits that firm performance is driven by the effective

utilization of valuable, rare, inimitable, and non-substitutable resources. In this context, digital marketing capabilities can be understood as strategic intangible resources that enable MSMEs to achieve competitive advantage and superior performance. The ability to leverage digital platforms, manage online customer relationships, and create engaging content reflects a firm's internal capability that directly contributes to enhanced sales outcomes (Barney, 1991).

Furthermore, these results align with the Dynamic Capabilities Theory introduced by David Teece, which emphasizes a firm's ability to integrate, build, and reconfigure internal and external competencies in rapidly changing environments. The digital landscape—characterized by evolving algorithms, shifting consumer behavior, and intense online competition—requires MSMEs to continuously adapt their digital marketing strategies. Thus, the effectiveness of digital marketing is not solely determined by adoption, but by the firm's agility in updating content strategies, utilizing platform features, and responding to market feedback (Teece, 2007).

## **CONCLUSION**

This study found that perceived digital marketing effectiveness has a positive and significant impact on sales performance in MSMEs. Findings from a simple linear regression analysis revealed that progress in the perception and use of digital marketing correlated with revenue growth, sales volume, customer expansion, and brand recognition. A high coefficient of determination indicates that digital marketing significantly influences differences in sales performance among MSMEs. This finding aligns with international research demonstrating a strong positive relationship between digital marketing management and improved sales performance, including increased sales volume and customer acquisition. These results validate that digital marketing has evolved into a strategic imperative rather than simply an optional advertising tool for MSMEs, particularly in the local snack food and fashion industries in Balikpapan. The 2020–2025 timeframe, which encompasses the pandemic and economic recovery phases, underscores the importance of digital adoption to ensure business continuity and enhance competitiveness. Digital marketing success is influenced not only by platform usage but also by internal factors such as digital literacy, managerial skills, creativity, and consistent execution. Previous research also confirms that internal factors such as managerial digital competency and organizational readiness are key determinants of successful digital marketing implementation in MSMEs. Therefore, enhancing digital capabilities among MSME participants, supported by government initiatives and institutional resources such as the East Kalimantan MSME Gallery in Balikpapan, is crucial for fully leveraging the benefits of digital transformation. Based on these findings, several strategic policies are recommended, including: local governments need to expand structured and sustainable digital marketing training and mentoring programs for MSMEs, including improving digital literacy and content management; providing easier access to digital infrastructure and technology-based financing; encouraging collaboration between MSMEs and e-commerce and social media platforms to expand market reach; and strengthening the role of supporting institutions such as the MSME Gallery as centers for digital incubation and promotion. Furthermore, incentive policies are needed for MSMEs that actively adopt digital technology, as well as the development of an integrated local digital ecosystem to increase business competitiveness and resilience. This recommendation also aligns with global literature that emphasizes the importance of policy support, funding, and technical assistance to accelerate the digital transformation of MSMEs. In conclusion, digital marketing has proven to be a powerful tool for improving MSME performance and fostering the growth of a robust, MSME-focused digital economy at the regional level.

## REFERENCES

- Alford, P., & Page, S. J. (2015). Marketing technology for adoption by small business. *The Service Industries Journal*, 35(11–12), 655–669. <https://doi.org/10.1080/02642069.2015.1062884>
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120. <https://doi.org/10.1177/014920639101700108>
- Chaffey, D., & Ellis-Chadwick, F. (2019). *Digital marketing: Strategy, implementation and practice* (7th ed.). Harlow, England: Pearson.
- Creswell, J. W., & Plano Clark, V. L. (2018). *Designing and Conducting Mixed Methods Research* (3rd ed.). Thousand Oaks, CA: SAGE.
- Dwivedi, Y. K., et al. (2021). Setting the future of digital and social media marketing research: Perspectives and research propositions. *International Journal of Information Management*, 59, 102168. <https://doi.org/10.1016/j.ijinfomgt.2020.102168>
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1–4. <https://doi.org/10.11648/j.ajtas.20160501.11>
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis* (7th ed.). Harlow, England: Pearson.
- Kraus, S., Palmer, C., Kailer, N., Kallinger, F. L., & Spitzer, J. (2019). Digital transformation in SMEs: A qualitative analysis of strategies and challenges. *Journal of Business Research*, 98, 406–417. <https://doi.org/10.1016/j.jbusres.2018.06.009>
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53(1), 59–68. <https://doi.org/10.1016/j.bushor.2009.09.003>
- Kotler, P., & Keller, K. L. (2016). *Marketing management* (15th ed.). Upper Saddle River, NJ: Pearson.
- Landjohou, G., & Christoper, E. (2026). The Impact of Digital Marketing on Small and Medium Enterprises (SMEs) Growth: A Systematic Review. *International Journal on Recent Trends in Business and Tourism (IJRTBT)*, 10(1), 1–18. <https://doi.org/10.51244/ijrsi.2024.1109069>
- Lind, D. A., Marchal, W. G., & Wathen, S. A. (2017). *Statistical Techniques in Business and Economics*. McGraw-Hill.
- OECD. (2020). *Coronavirus (COVID-19): SME policy responses*. Paris: OECD Publishing. Retrieved from <https://www.oecd.org/coronavirus/policy-responses/coronavirus-covid-19-sme-policy-responses-04440101/>
- Porter, M. E. (1985). *Competitive advantage: Creating and sustaining superior performance*. New York, NY: Free Press.
- Ritz, W., Wolf, M., & McQuitty, S. (2019). Digital marketing adoption and success for small businesses: The application of the TOE framework. *Journal of Research in Interactive Marketing*, 13(2), 179–203. <https://doi.org/10.1108/JRIM-04-2018-0062>
- Sharabati, A.-A. A., Ali, A. A. A., Allahham, M. I., Hussein, A. A., Alheet, A. F., & Mohammad, A. S. (2024). The Impact of Digital Marketing on the Performance of SMEs: An Analytical Study in Light of Modern Digital Transformations. *Sustainability*, 16(19), 8667. <https://doi.org/10.3390/su16198667>
- Tambunan, T. (2019). *Recent evidence of the development of micro, small and medium enterprises in Indonesia*. Jakarta: Center for Industry, SME and Business Competition Studies, University of Trisakti.
- Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319–1350. <https://doi.org/10.1002/smj.640>
- Tiago, M. T. P. M. B., & Veríssimo, J. M. C. (2014). Digital marketing and social media: Why bother? *Business Horizons*, 57(6), 703–708. <https://doi.org/10.1016/j.bushor.2014.07.002>

- Tornatzky, L. G., & Fleischer, M. (1990). *The processes of technological innovation*. Lexington, MA: Lexington Books.
- Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122, 889–901. <https://doi.org/10.1016/j.jbusres.2019.09.022>
- World Bank. (2020). *East Asia and Pacific economic update: From containment to recovery*. Washington, DC: World Bank. Retrieved from <https://www.worldbank.org/en/region/eap/publication/east-asia-pacific-economic-update>.