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## IMPLEMENTATION OF DIGITAL MARKETING FOR SMALL AND MEDIUM ENTERPRISES

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### Abstract

*The development of information and communication technology is able to drive the transformation of traditional marketing to internet-based marketing. Marketing digitalization was initially more researched in large companies, but was still limited digital marketing researched in SMEs. This research seeks to fill the research gap with the aim of describing the implementation of digital marketing in SMEs and analyzing the impact on SME performance. This study used 184 samples of SMEs in West Sumatera. Research variables include entrepreneur aspects, business aspects and infrastructure aspects. The data were analyzed using descriptive and binary logits. The results show that gender and business scale have a significant effect on the implementation of digital marketing in SMEs. Women entrepreneurs more intensively use social media for digital marketing activities but limited resources and infrastructure cause SMEs more limited opportunities in adopting digital marketing*

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**Kata Kunci:** digital marketing, SMEs, digital technology

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## INTRODUCTION

The advancement of information and communication technology that has developed rapidly in recent years has brought changes in operations and business strategies [1]. The development of digital media is also able to shift conventional marketing to internet-based marketing [2], encourage business innovation [3], and create customer value creation [4]. These technological inventions have significantly affected the lifestyle of consumers and the way marketers communicate with their customers [5]. Today's business market competition is largely determined by the company's ability to adapt to changes in information and communication technology [6]. Digital marketing has become a part of global life along with increasing internet penetration in people's activities [7].

In Indonesia, internet access has almost reached all regions of Indonesia. Internet penetration in 2020 reached 64.8 percent, then in early 2021, it increased to 73.7 percent. Geographically, internet penetration in Java is higher than other islands in Indonesia, reaching 56.4 percent, followed by Sumatra (22.1 percent), Sulawesi (7 percent), and Kalimantan (6.3 percent). Most internet users in Indonesia are 19-34 years old (49.52 percent) and chat and social media services are the most frequently accessed service sites by internet users in Indonesia, namely 89.35 percent and 87.13 percent [8].

In the industrial sector, the use of the internet can increase business efficiency and productivity. According to [3] digitalization can improve performance, reach a wider market and increase interaction between producers and consumers. Digitalization can also increase information availability and international connectivity, reduce costs and promote product innovation [9].

Some of the literature defines digital marketing simply as "achieving marketing objectives through applying digital technology" [10]. Digital marketing is the marketing of a business, product, or service using online channels, electronic devices, and digital technologies. Digital marketing is very important for companies today because it offers cost-effective marketing solutions. Compared to traditional marketing, online marketing is extremely cost-effective. The introduction of new technologies has created new business opportunities for marketers to manage their businesses and achieve their business goals.

Digital marketing is part of the rapidly developing development of information technology. In its development, digital marketing is applied by the industrial sector by using a variety of digital media such as websites, WhatsApp, social media platforms, and other media. A variety of factors can influence digital marketing activities and practices. According to [11] the adoption rate of digital marketing technology is influenced by internal company factors, industry characteristics, social characteristics of society, technological characteristics, attitudes, and perceptions of employees. [12] identify two marketing capabilities gaps: *the practice gap*—which identifies the deficit between managers' 'current' practices and their 'ideal' digital marketing capabilities; and, *the knowledge gap*—which demonstrates a significant divide between the digital marketing transformations in industrial firms and the extant scholarly knowledge that underpins this

Social media like Facebook and Instagram has opened the door for business to communicate with a consumer about product and services and opened new marketing opportunities in the market. For businesses, online reviews have worked well as part of their overall strategic marketing strategy. Social media should be regarded as an integral part of an organization's integrated strategy [13]. [14] recommended that social media should be regarded as an integral part of an organization's integrated marketing strategy and should not be taken lightly. [15] and [16] proven that users experience increased self-esteem and enjoyment when they adapt to social media which itself is a motivating sign for business and marketing professionals.

Previous digital marketing research has been conducted more on large industries and high-tech industries [17] and [18] while research related to digital marketing of MSME rice is still very little. The adoption of digital marketing in MSMEs is interesting to research because this sector is the largest economic sector in Indonesia and is the backbone of the national economy. MSME players in the processing industry must immediately accelerate digital transformation in their business practices to strengthen competitiveness and improve business performance amid the increasingly rapid digital culture of today's society.

The adoption of digital marketing instruments by SMEs is subject to the perceived ease of the use of such technology and the worthiness of the investment. Even less is known about how small business practice digital marketing with just a few studies that tend to highlight the barriers to small industries adopting social media practices. Digital marketing practiced in larger industries may not be suitable for small industries because of distinct characteristics and limited resources available. Taking these gaps into consideration, this research aims to find out how the adoption of digital marketing in the micro and small-scale processing industry as well as internal and external factors that affect the adoption process.

Digital marketing refers to the use of digital communication channels to acquire, retain, and build relationships with customers [19]. [20] confirmed that digital marketing is the use of technologies to help marketing activities to improve customer knowledge by matching their needs.

According to [20] digital marketing can affect the competitive advantages of MSMEs, including (1) digital marketing costs are cheaper than conventional marketing, (2) the geographical reach of consumers is wider, (3) not limited in time, but on the other hand, digital marketing also has disadvantages, namely (1) it is easy to imitate competitors, (2) it can be misused by irresponsible parties, (3) bad reputation if there is a negative response from consumers. MSMEs often use social media to do digital marketing.

Digital platforms have the potential to support value creation and customer engagement, which are vital to SMEs [21]. Despite this potential, the adoption of digital marketing by SMEs remains limited and these benefits are not fully realized. SMEs often lack the required technical knowledge and resources and are resistant to management or other key decision-makers in digital marketing used. Social media has become a popular channel for marketing and advertising activities.

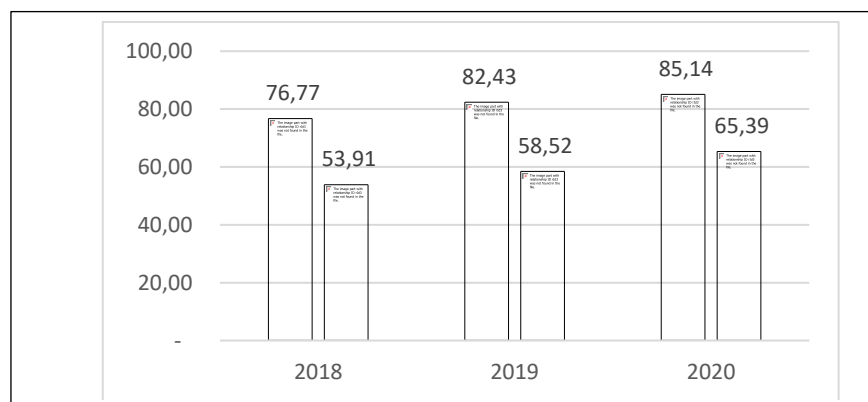
Studies have identified and tested factors related to social media advertising

that predict purchase intention. Additionally, social media had provide opportunities for SMEs to gain customer insight by studying online user-generated content and communication. Digital marketing activities can be affected by a variety of factors. Previous studies have investigated that firms should try to increase network size and should strategically use their social media, because a follower of the firms can act as an intermediary in spreading the information to other users, subsequently leading to social promotion [22].

In SMEs, despite evidence that business performance can be enhanced through digital marketing [17], the adoption of these practices remains low level and the reasons why are poorly understood [23]. However, SMEs might struggle due lack of technical or marketing expertise to changes in the digital organization environment.

The emergence of the internet and communication has transformed the role of business marketing and its practice. [23] found that market orientation, learning orientation, and entrepreneurial orientation have complementary characteristics that help SMEs succeed in digital marketing. [24] confirmed that individual characteristics like senior management is one of the main factors influencing digital technology adoption. The level of IT knowledge of the owner or manager have a strong determinant in the adoption of behaviors that support SMEs' digital orientation.

Efficient digital marketing is helpful for small business to grow and also provide an opportunity to reduce the performance gap between large and small business. Digital marketing can help small businesses to reach their specific customers at a minimum cost and helps reduce the start-up cost, minimum operating cost, cost-effective resources, and good profit margin [26]. Therefore, compared to large businesses, small businesses have poles apart in digital footsteps and technology acceptance promptness [27]. It is necessary to understand the factors that support their performance in a digital era. That way study of digital marketing adoption in small businesses is required.



Source: BPS (2021)

Figure 1. Household internet access (in percent)  
in Rural and Urban 2018-2020

## RESEARCH PURPOSES

This study aims to (1) Describe digital marketing applications in MSMEs, (2) Analyze factors that affect digital marketing performance in MSMEs in West Sumatera.

## METODOLOGY

This study used 2021 E-commerce survey data with a total sample of 63 manufacturing industries in the MSMEs in West Sumatra. Digital marketing applications are observed from the period needed for MSMEs to start doing digital marketing. Digital marketing applications are assumed to reduce costs and increase business revenue. The digital marketing performance of MSMEs is measured by MSME revenue in 1 year. This income is channeled using a binary scale, namely 1 if the income of MSMEs is above the industry average and 0 if the income of MSMEs is below the industry average.

Digital marketing applications are influenced by various variables. Some Variables observed in this study refer to previous studies conducted by [23] and [24]. Digital marketing applications for MSMEs are allegedly influenced by (a) individual factors, namely age, gender, level of education of entrepreneurs, and training followed by entrepreneurs, and (b) business factors, namely business scale, business financial management, innovation of payment methods and delivery methods and (c) infrastructure factors, namely telephone, and internet facilities. We chose business performance as our dependent model variable since the ultimate objective of process acceleration is performance improvement. Variables and their measurement techniques are described in Table 1

Table 1. Research Variables and Measurements

Variable	Measurement	Referenc e
Age	Entrepreneur age (year)	[24]
Gender	1= Female; 0 others	
Education level of entrepreneur	1= senior high school; 2=diploma; 3= bachelor; 4= postgraduate	[23]
Training	1= been digital marketing trained; 0= others	
Firm size	1=Micro business, 0=small business	[23]
Financial management	1= have financial statement; 0 others	
Payment method	1=Cash; 2=bank transfer	[23]
Delivery method	1= direct delivery; 2= delivery service; 3=pick up order	
Telephone service	1= have phone; 0=other	[23]
Business revenue (Rupiah/year) (Y)	1= above the average of annual revenue industries; 0=others	

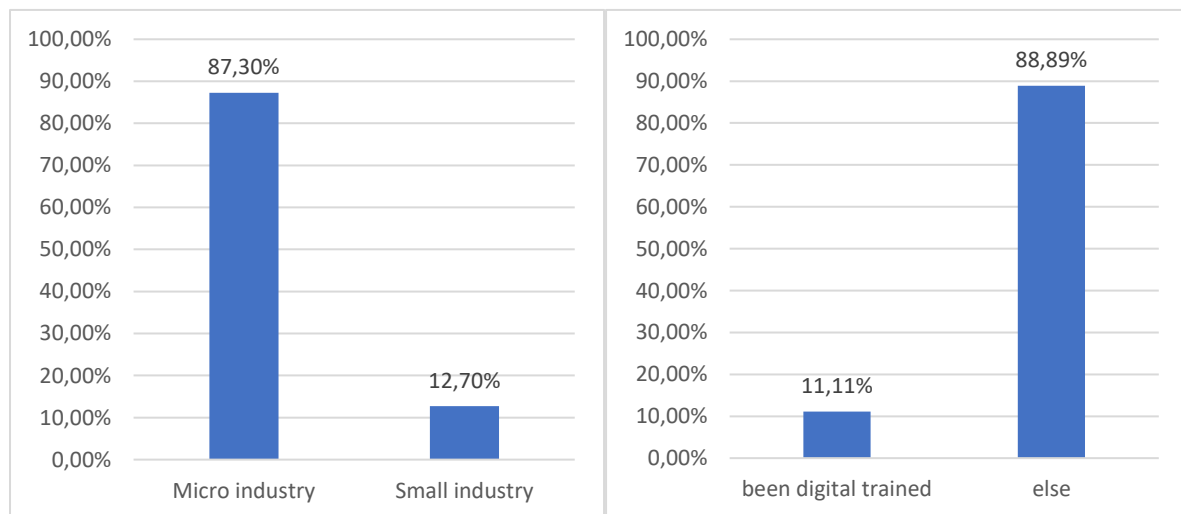
The data were analyzed using a logit regression model with the following equation:

$$Y_i = \frac{e^{(\alpha + \beta_{age} + \beta_{gender} + \beta_{education\ level} + \dots + \beta_{internet\ services})}}{1 + e^{(\alpha + \beta_{age} + \beta_{gender} + \beta_{education\ level} + \dots + \beta_{internet\ services})}}$$

## RESULTS AND DISCUSSION

The processing industry in West Sumatra consists of various types of industries. In this study, it was found that more than 50 percent of the processing industry was in the form of the food and beverage industry, besides that it was also found in the fashion industry and handicraft industry, and other creative industries. The processing industries they run mostly utilize local raw materials available in their region.

The processing industry in West Sumatra is dominated by male entrepreneurs, namely 63.70 percent. Based on the type of business scale, 87.30 percent of the processing industry in West Sumatra is dominated by micro-industries with a workforce of 1-4 people. Most of this labor comes from within the family and the technology they use is relatively simple. MSME entrepreneurs in West Sumatra who have received training related to digital marketing only amount to 11.11 percent, the rest are doing independent learning related to digital marketing applications in the business they run (Figure 1)



**Figure 2.** Characteristics of the processing industry

The ability to manage MSME finances is still below the average, namely, only 28.6 percent of MSMEs have done business bookkeeping, while the remaining 71.4 percent still have not done business recording, so it is feared that the ability to manage business finances is also low. The findings of this study are in line with [23] that the

low ability of financial management in MSMEs causes frequent errors in business capital management. MSMEs tend to find it difficult to transform into a wider business scale due to the lack of ability to manage business finances and business planning to allocate profits for future business development.

The digital ability of MSME entrepreneurs who are in the productive and educated age range tends to be higher than the digital ability of MSME entrepreneurs who are in the non-productive age range and have middle/low education [28]. The group of entrepreneurs who are at a productive age tends to have a greater curiosity towards the development and progress of the business world and are more courageous to adopt new things in the business environment they face, including applying online marketing to the business they are engaged in. Knowledge is an important factor that affects the ability of MSMEs to use digital marketing technology. MSMEs who realize the magnitude of the benefits obtained in the implementation of digital marketing tend to be faster in using this approach in managing their business [26].

The development of technology requires MSMEs to adjust to the advancement of digitalization, including in the driving business. Nowadays, people are starting to be interested in using digital media such as social media to make buying and selling transactions because they are considered more practical and simple. From the producer side, the use of digital marketing also makes it easier to communicate directly with consumers. According to [21] the use of social media can have a positive impact on the business continuity of MSMEs, increase good relations with customers and be able to reduce driving costs. The use of the internet in MSMEs is also able to facilitate a faster exchange of information and grow efficiency in managing their business.

The most widely used social media in digital marketing by MSMEs in West Sumatra are WhatsApp, line, and Facebook. They can upload their product information by utilizing the chat feature, and status and also share it in WhatsApp groups. The use of social media according to MSME producers can reduce promotional costs and communication costs

**Table 2.** Summary statistic of binary logit analysis

Variable	Coefficient	z	p> z
Age	0.0539355	0.86	0.389
Gender	3.080945	1.79	0.073*
Education level of entrepreneur	-0.3063962	-0.34	0.731
Firm size	3.760935	2.21	0.027**
Financial management	0.8320764	0.59	0.555
Delivery method	-1.541827	-0.89	0.376
Telephone service	3.1715	1.22	0.224
_cons	-12.17738	-2.34	0.019

\*significant at  $\alpha=10\%$ , \*\* 5%

Source: data analysis

The individual factor, income (X4), has a significant effect on consumer behavior in purchasing agricultural products. The results of this study are in line with the findings of Melovic et al. (2021) that income consumers who have a relatively high income level tend to like online purchases because it is more effective and time-saving and has a lot of convenience in the process of distributing goods. According to Mardiani and Imanuel (2013) consumers who have high income tend to like a practical shopping process. Ease of shopping online can save shopping time and reduce bargaining transactions

According to Kamble et al (2020) the development of a digital culture of life in the community, especially in purchasing agricultural products, has made it easier for consumers to monitor the producers of their products and track the whereabouts of the product and its delivery to the consumer's location.

The individual factor that has a significant effect on consumer decisions in the use of e- marketing to purchase agricultural products is fix job factor (X5). The results of the logit analysis also show that the level of education is statistically significant at the 10% level with a positive coefficient value. It indicates that consumer with fix job, the greater the probability of using e-marketing in purchasing agricultural product.

Most MSME entrepreneurs think that the use of digital marketing can reduce marketing costs, increase efficiency, facilitate the flow of information and communication and be able to provide convenience for consumers in transactions. In this study, it was found that 79.03 percent of the sample preferred to use cash payments, while the rest used the bank transfer payment system. As many as 63.49 percent of consumers like the direct delivery method and only 18.75 percent use delivery services and the rest take orders in stores.

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## CONCLUSION

The processing industry in West Sumatra is dominated by micro and medium enterprises. The type of industry that is more widely cultivated in the culinary industry, namely the small food industry typical of Sumatran Barat. The lack to start digital marketing for MSMEs is quite large, on average, namely after 2-3 years of business establishment. Gender and business scale factors have a significant influence on the adoption of digital marketing in MSMEs. Small industries have greater limitations in applying digital marketing, while women entrepreneurs tend to be more intensive in using their social media to promote



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## REFERENCES

- Yu H, Fletcher M, Buck T. (2022). Managing digital transformation during re-internationalization: Trajectories and implications for performance. *Journal of International Management*. Vol 28
- Takeda A. Hoa T. Truong T. Sonobe T. (2022). The impacts of the COVID-19 pandemic on micro, small, and medium enterprises in Asia and their digitalization responses. *Journal of Asian Economics*. 82
- Guo. H, Yang Z. Huang R. Guo A. (2020). The digitalization and public crisis responses of small and medium enterprises: Implication from a COVID 19 survey. *Frontiers of Business Research in China* 14.19.2020
- Matarazzo M. Penco L. Profumo G. Quaglia R. (2021). Digital transformation and customer value creation in Made in Italy SMEs: A dynamic capabilities perspective. *Journal of Business Research*. Vol 123. P 642-656
- Faruk M. Rahman M. Hasan S. 2021. How digital marketing evolved: A bibliometric analysis on Scopus database. *Heliyon*. Vol 7. <https://doi.org/10.1016/j.heliyon.2021.e08603>
- Febriantoro M. T., Arisandi D. 2018. Pemanfaatan *Digital Marketing* Bagi Usaha Mikro, Kecil Dan Menengah Pada Era Masyarakat Ekonomi Asean. *Jurnal Manajemen Dewantara*. Vo. 1 No. 2 Hal 62-76
- Ancin M. Pindado E., Sanchez M. (2022). New Trends in the global digital transformation process of the Agri-food sector: An explanatory study based on Twitter. *Agricultural Systems*. Vol 203
- Amjad T. (2022). Digital entrepreneurial marketing: A Bibliometric analysis reveals an inescapable need of business schools. *The International Journal of Management Education*. Vol 20, Issue 2.
- Statistics of Indonesia (2020)
- Brynjolfsson, A. McAfee. (2017). The business of artificial intelligence. *Harv.Bus.Rev*
- Chaffey. D (2013). Definitions of E-Marketing vs Internet vs Digital Marketing. *Smart Insight Blog*. February 16
- Busca L. Bertrandias L. 2020. A Framework for Digital Marketing Research: Investigating the Four Cultural Eras of Digital Marketing. *Journal of interactive marketing* 49, Pages 1-19
- Herhausen D. Miocevic D. Morgan R. Kleijnen M. 2020. The digital marketing capabilities gap Industrial Marketing Management. Vol 90. P. 276-290. <https://doi.org/10.1016/j.indmarman.2020.07.022>
- Dwivedi Y K. Rana N P. Slade E.L, Singh N. Kizgin H, 2020. Editorial introduction: Advances in theory and practice of digital marketing. *Journal of Retailing and Consumer Surrices*. Vol 54

- Mangold, Glynn W, and David J. Faulds. (2009). Social Media: The new hybrid element of the Promotion Mix. *Business Horizons* 52: 357-365
- Arora D., Sahu T. (2020). A Study of factors influencing digital marketing adoption by SMEs in Indonesia. *Shodh Sarita*. Vol 7. 24-28
- Cetina J., Cristiana. M.Radulescu V. 2012. Psychological and Social Factors that influence Online Consumer Behavior. *Procedia – Social and Behavioral Sciences*. Vol 62. Page 184-188
- D. Tolstoy, E.R. Nordman, S.M. Hånell, N. Özbek. The development of international e-commerce in retail SMEs: an effectuation perspective. *Journal of World Business*, 56 (3) (2020), Article 101165
- Cenamor J. Parida V. Wincent J. (2019). How entrepreneurial SMEs compete through digital platforms: The roles of digital platform capability, network capability, and ambidexterity. *Journal of business research*. 100. 196-206
- Ghezzi A., & Cavallo, A (2020). Agile business model innovation in digital entrepreneurship; Lean startup approaches. *Journal of Business Research*. 110. 519-537
- Gover P. Kar.A.K., 2018. User Engagement for mobile payment service providers introducing the social media engagement model. *J. Retail.Consum. Serv.* <https://doi.org/10.1016/j.jretconser.2018.12.002>
- Karjaluoto H. Mustonen N., Ulkuniemi P. 2015. The role of digital channels in industrial marketing communications. *The Journal of Business and Industrial Marketing*, 30 (6), pp. 703-710
- Mangold, Glynn W, and David J. Faulds. (2009). Social Media: The new hybrid element of the Promotion Mix. *Business Horizons* 52: 357-365
- Febriantoro M. T., Arisandi D. 2018. Pemanfaatan *Digital Marketing* Bagi Usaha Mikro, Kecil Dan Menengah Pada Era Masyarakat Ekonomi Asean. *Jurnal Manajemen Dewantara*. Vo. 1 No. 2 Hal 62-76
- Matarazzo M. Penco L. Profumo G. Quaglia R. (2021). Digital transformation and customer value creation in Made in Italy SMEs: A dynamic capabilities perspective. *Journal of Business Research*. Vol 123. P 642-656
- Gover P. Kar.A.K., 2018. User Engagement for mobile payment service providers introducing the social media engagement model. *J. Retail.Consum. Serv.* <https://doi.org/10.1016/j.jretconser.2018.12.002>
- Quinton S., Canhoto A., Molinillo S., Pera R. Budhathoki T. 2018. Conceptualizing a digital orientation: Antecedents of supporting SME performance in the digital economy. *Journal of Strategic Marketing*, 26 (5). pp. 427-439
- Alshamaila Y., Papagiannidis S., Li F. 2013. Cloud computing adoption by SMEs in the northeast of England: A multi-perspective framework. *Journal of Enterprise Information Management*, 26, 250-275..
- Arora D., Sahu T. (2020). A Study of factors influencing digital marketing adoption by SMEs in Indonesia. *Shodh Sarita*. Vol 7. 24-28
- Arora D., Sahu T. (2020). A Study of factors influencing digital marketing adoption by SMEs in Indonesia. *Shodh Sarita*. Vol 7. 24-28

- Faruk M. Rahman M. Hasan S. 2021. How digital marketing evolved: A bibliometric analysis on Scopus database. Heliyon. Vol 7. <https://doi.org/10.1016/j.heliyon.2021.e08603>
- Faruk M. Rahman M. Hasan S. 2021. How digital marketing evolved: A bibliometric analysis on Scopus database. Heliyon. Vol 7. <https://doi.org/10.1016/j.heliyon.2021.e08603>