The Effect of Digital Marketing Literacy and Digital Marketing Strategy on Customer Satisfaction and Its Implications for Customer Loyalty.

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Abstrak	Informasi Artikel
Penelitian ini bertujuan untuk menganalisis Pengaruh literasi dan strategi pemesasran digital produk kecantikan di Kabupaten Pamekasan. Sampel yang digunakan dalam penelitian ini melibatkan 190 konsumen produk kecantikan. Pendekatan kuantitatif diterapkan dengan menggunakan metode analisis Partial Least Square - Structural Equation Modeling (PLS-SEM). Penelitian ini menemukan bahwa literasi pemasaran digital dan strategi pemasaran digital memiliki pengaruh positif dan signifikan terhadap kepuasan serta loyalitas konsumen. Selain itu, kepuasan konsumen juga terbukti meningkatkan loyalitas mereka. Temuan ini memperkaya literatur pemasaran digital dengan menyoroti peran penting literasi dan strategi yang efektif dalam membangun kepuasan dan loyalitas konsumen. Secara praktis, hasil ini dapat menjadi landasan untuk merancang strategi pemasaran digital yang lebih efektif, serta memberikan panduan bagi perusahaan di industri kecantikan untuk memperkuat hubungan dengan konsumen melalui pemasaran digital yang lebih optimal..	**Kata Kunci :** Literasi, Digital, Kepuasan Konsumen, Loyalitas Konsumen
Abstract *This study aims to analyze the influence of digital marketing literacy and strategies on beauty products in Pamekasan Regency. The sample used in this study involved 190 beauty product consumers. A quantitative approach was applied using the Partial Least Square - Structural Equation Modeling (PLS-SEM) analysis method. This study found that digital marketing literacy and digital marketing strategies have a positive and significant influence on consumer satisfaction and loyalty. Furthermore, consumer satisfaction has also been shown to increase their loyalty. These findings enrich the digital marketing literature by highlighting the*	*Keywords :* *Literacy, Digital, Consumer Satisfaction, Consumer Loyalty*

important role of effective literacy and strategies in building consumer satisfaction and loyalty. Practically, these results can serve as a foundation for designing more effective digital marketing strategies and provide guidance for companies in the beauty industry to strengthen relationships with consumers through more optimal digital marketing.

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INTRODUCTION

The rapid development of information and communication technology has had a significant impact on various sectors, particularly in digital marketing. In the beauty product industry, digital marketing has become a key element in enhancing the competitiveness of companies. Although many companies in this sector have adopted digital marketing, many have not fully optimized the potential of their digital strategies. This is evident from the low levels of customer satisfaction and loyalty, despite exposure to product advertisements and information through digital platforms. In response to this issue, it is crucial for companies to understand how digital marketing literacy and effective digital marketing strategies can improve customer satisfaction and loyalty. Digital marketing literacy enables company leaders to guide teams more effectively in leveraging digital technologies, while the right strategies can strengthen relationships with consumers. Therefore, companies need to focus on strengthening both aspects to improve the outcomes of their digital marketing efforts.

The focus of this study is on beauty product companies in Pamekasan Regency, which have local market characteristics with varying levels of digital marketing utilization. The uniqueness of this study lies in the fact that, despite the growing trend of digitalization, the implementation of digital marketing in this area is still far from optimal. This provides an opportunity to explore how digital marketing literacy and strategies can contribute to enhancing customer satisfaction and loyalty in an emerging market.

This study adopts a quantitative approach by examining the relationships between digital marketing literacy, digital marketing strategies, customer satisfaction, and customer loyalty. Based on the proposed hypothesis, digital marketing literacy and digital marketing strategies are expected to have a positive impact on customer satisfaction and loyalty. The study aims to identify the interrelationship between these variables and their specific impact on the beauty product industry in Pamekasan Regency. Previous studies have revealed that digital marketing literacy significantly affects customer satisfaction. Kaur and Bansal (2023) showed that a better understanding of digital marketing can improve the consumer experience when interacting with a brand. Additionally, a study by Hidayat et al. (2024) identified that effective digital marketing strategies are directly related to customer loyalty, particularly in competitive industries like beauty products. Research by Zhou et al. (2023) also confirmed that digital marketing plays a vital role in building long-term relationships with consumers.

Although numerous studies have examined the impact of digital marketing literacy and strategies on customer satisfaction and loyalty, few have comprehensively explored the interaction between these three variables in the context of the beauty product industry in non-metropolitan areas. A study by Sen and Lamba (2025) suggested the need for a more specific approach to understanding these dynamics in developing regions. This study fills that gap by focusing on the application of digital marketing in Pamekasan Regency and its impact on beauty product consumers. This study offers a significant distinction by examining the relationship between digital marketing literacy, digital marketing strategies, customer satisfaction, and customer loyalty within an integrated model, specifically in the beauty industry in Pamekasan. The urgency of this research lies in the need to strengthen understanding of how digital marketing can be optimized to enhance customer satisfaction and loyalty, which in turn can improve the competitiveness of companies. Theoretically, this study fills a gap in the literature on digital marketing, focusing on developing regions, while practically, its findings can serve as a guide for companies to design more effective digital marketing strategies that are relevant to local conditions.

THEORETICAL FRAMEWORK AND RESEARCH HYPOTHESIS

This research is grounded in two complementary theoretical frameworks: Digital Marketing Literacy Theory as the grand theory, and the Technology-Organization-Environment (TOE) Framework as the middle-range theory. Digital Marketing Literacy Theory emphasizes the importance of understanding and mastering digital technology by leaders and marketing staff within an organization. In the context of digital marketing, digital literacy refers not only to technological knowledge but also to the ability to manage and strategically apply that technology to achieve marketing objectives (Li & Li, 2024; Zhang & Lin, 2024). Digital Marketing Literacy is crucial in formulating effective marketing strategies, which, in turn, impact customer satisfaction and loyalty in a market increasingly influenced by digital advancements (Kotler et al., 2023; Hidayat & Setiawan, 2023).

As a supporting theory, the Technology-Organization-Environment (TOE) Framework, developed by Tornatzky and Fleischer (1990), highlights that the adoption of technology in organizations is influenced by three key aspects: technological readiness, organizational characteristics, and the external environment. In the context of digital marketing, technology adoption relies not only on having adequate technological infrastructure but also on the organization's readiness to adapt to changes and how external factors, such as consumer preferences and market trends, influence technology adoption. The TOE framework is essential in explaining how organizations with strong digital marketing literacy are better equipped to implement effective digital marketing strategies, which in turn impact customer satisfaction and loyalty (Tornatzky & Fleischer, 1990; Bharadwaj et al., 2013; Kane et al., 2015; Westerman et al., 2014; Lee & Bae, 2023).

By combining Digital Marketing Literacy Theory and the TOE Framework, this research constructs a conceptual model that links digital marketing literacy, digital marketing strategies, customer satisfaction, and customer loyalty. This model explains that understanding and implementing effective digital marketing plays a pivotal role in shaping digital marketing strategies that enhance customer satisfaction and loyalty. Well-executed digital marketing strategies, driven by digital marketing literacy, will provide positive experiences for consumers, leading to higher satisfaction and stronger loyalty to the brand (Chaffey & Ellis-Chadwick, 2023; Kumar & Shah, 2023; Lee et al.,

2023; Sari & Purwanto, 2024). Additionally, this study also views customer satisfaction as a mediator that connects digital marketing literacy and digital marketing strategies with customer loyalty, guiding organizations to focus on enhancing satisfaction as a step toward strengthening long-term customer loyalty.

Digital Marketing Literacy

Digital Marketing Literacy refers to the level of knowledge, skills, and capabilities that individuals possess in managing, adopting, and applying digital technologies to achieve marketing objectives. It encompasses an understanding of various digital tools and channels that can be used to enhance consumer interaction, as well as the ability to analyze and assess the impact of different digital marketing strategies (Chaffey & Ellis-Chadwick, 2023; Smit et al., 2024). Digital-literate leaders and marketing staff are capable of utilizing digital platforms such as social media, digital advertising, and e-commerce to increase consumer engagement and build stronger relationships with them. Digital marketing literacy also involves an understanding of how to leverage big data and analytics to optimize marketing strategies, thereby assisting companies in creating more personalized and relevant customer experiences (Hidayat & Setiawan, 2023; Leeflang et al., 2023).

Digital Marketing Strategy

Digital Marketing Strategy refers to the plans and tactics employed by companies to achieve marketing objectives through the use of digital technologies. It includes selecting the appropriate digital channels, managing online marketing campaigns, and measuring and analyzing the results of digital marketing efforts (Kotler et al., 2023; Hidayat & Setiawan, 2023). An effective digital marketing strategy integrates digital technologies with clear marketing goals to enhance customer experience, which ultimately influences customer satisfaction and loyalty. Therefore, developing an effective digital marketing strategy requires a deep understanding of digital consumer behavior and the ability to adapt to the rapid changes in the digital environment (Keller, 2023; Lee et al., 2024; Chaffey, 2023).

Customer Satisfaction

Customer Satisfaction refers to the level of contentment or dissatisfaction experienced by consumers after comparing their expectations with the performance of the product or service received. Customer satisfaction plays a crucial role in fostering customer loyalty, as satisfied customers are more likely to continue purchasing the same

products or services and recommend them to others (Oliver, 1997; Lee et al., 2023). In the context of digital marketing, customer satisfaction is influenced by various factors, such as the quality of user experience when interacting with digital channels, the ease of use of digital platforms, and how effectively a company meets consumer needs and desires through digital marketing (Hossain & Khatun, 2023; Sari & Purwanto, 2024).

Customer Loyalty

Customer Loyalty is the commitment of consumers to continue purchasing products or services from the same company, even in the face of offers from competitors. This loyalty not only reflects repeat purchase behavior but also the emotional attachment that consumers have to the brand in question (Dick & Basu, 1994; Aydin & Özer, 2023). In the era of digital marketing, customer loyalty can be strengthened by providing consistent and personalized experiences through digital channels, as well as by using data to understand consumer preferences and needs. Therefore, an effective digital marketing strategy will directly influence customer loyalty by enhancing satisfaction and providing better experiences (Keller, 2023; Kumar & Shah, 2023).

Relationship Between Variables

This study aims to analyze the relationships between Digital Marketing Literacy, Digital Marketing Strategy, Customer Satisfaction, and Customer Loyalty in the beauty products sector in Pamekasan Regency. The following provides an in-depth discussion of the relationships between the variables tested in this study:

1. The Impact of Digital Marketing Literacy on Customer Satisfaction

Digital Marketing Literacy has a positive and significant effect on Customer Satisfaction. A deep understanding of digital marketing enables companies to design strategies that are more accurate and relevant to consumers. Consumers exposed to effective digital marketing, such as the use of social media, personalized content, and offers aligned with their preferences, are more likely to feel satisfied with the products or services they receive. Digital marketing literacy facilitates an understanding of digital trends, which can then be applied to create better customer experiences (Lee et al., 2023; Shankar & Jebarajakirthy, 2024; Kaur et al., 2023). In this regard, companies with a better understanding of digital marketing are more effective in enhancing customer satisfaction, which forms the foundation of customer loyalty.

2. The Impact of Digital Marketing Strategy on Customer Satisfaction

Digital Marketing Strategy has a positive and significant effect on Customer Satisfaction. A successful digital marketing strategy not only involves selecting the right channels but also managing marketing campaigns effectively, such as digital ads, email marketing, and online platform-based promotions. The use of good digital marketing strategies allows companies to reach consumers more efficiently, deliver relevant messages, and provide a more satisfying experience (Chaffey & Ellis-Chadwick, 2023; Tuten & Solomon, 2023; Dehghani & Tumer, 2024). Consumers who feel satisfied with the way they interact with the brand online are more likely to remain loyal and recommend the product to others.

3. The Impact of Digital Marketing Literacy on Customer Loyalty

Digital Marketing Literacy has a positive and significant effect on Customer Loyalty. Consumers who are more familiar with and accustomed to digital marketing—such as understanding how they are engaged in digital campaigns or the benefits they receive from the product—are more likely to feel emotionally connected to the brand. High consumer engagement in digital marketing through social media platforms and personalized interactions strengthens their long-term relationship with the brand, thereby enhancing loyalty (Dehghani et al., 2023; Daugherty et al., 2024; Sweeney et al., 2023). Therefore, companies with high digital marketing literacy can build stronger relationships with consumers, leading to greater loyalty.

4. The Impact of Digital Marketing Strategy on Customer Loyalty

Digital Marketing Strategy has a positive and significant effect on Customer Loyalty. The right digital marketing strategy can enhance customer loyalty through consistent communication and offers that align with consumer preferences. The use of technology to provide personalized experiences or offer loyalty-based rewards can strengthen the bond between consumers and the brand. This also relates to a company's ability to leverage analytics data in its digital marketing strategy, allowing them to understand consumer preferences and create more relevant offers (Chong et al., 2024; Geyskens et al., 2023; Kumar & Shah, 2024). Therefore, a digital marketing strategy focused on consistency, personalization, and added value will contribute to enhancing customer loyalty.

5. The Impact of Customer Satisfaction on Customer Loyalty

Customer Satisfaction has a positive and significant effect on Customer Loyalty. Consumers who are satisfied with the products or services provided are more likely to repurchase and remain loyal to the brand they choose. Customer satisfaction not only reflects the quality of their experience but also forms the foundation for long-term loyalty. Satisfaction achieved through positive experiences with digital marketing will encourage consumers to develop long-term relationships with the brand (Oliver, 1997; Zeithaml et al., 2024). In the context of digital marketing, personalized interactions and responsive customer service will reinforce satisfaction and drive further loyalty.

RESEARCH METHODOLOGY

This study employs a quantitative approach to examine the causal relationships between variables within the established conceptual framework. The independent variables in this study are Digital Marketing Literacy and Digital Marketing Strategy, while the dependent variables are Customer Satisfaction and Customer Loyalty. The quantitative approach is selected because the study aims to measure and analyze the relationships between variables using instruments that provide measurable and objective results. This approach allows for clearer analysis of causal relationships by utilizing stronger statistical methods such as Partial Least Squares - Structural Equation Modeling (PLS-SEM) (Hair et al., 2025; Kock, 2023; Pahlke et al., 2020; Kline, 2015; Alavi et al., 2024).

The population for this study consists of beauty product consumers in Pamekasan Regency, with a sample of 190 consumers. The sample was selected using purposive sampling, where respondents were chosen based on specific criteria relevant to the research objectives. The criteria for selecting the sample are: (1) consumers who have used beauty products for at least 6 months, (2) aged between 18 and 40 years, and (3) have experience interacting with the digital marketing strategies implemented by beauty companies. Purposive sampling was chosen to ensure that respondents have relevant knowledge and experience, thereby making the data collected more valid and reliable (Creswell & Creswell, 2024; Etikan et al., 2016; Taherdoost, 2023; Hair et al., 2023; Field, 2018). The research instrument used is a closed-ended questionnaire with a 5-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (5). Each

construct is measured based on indicators that have been adapted and validated from previous studies. Digital Marketing Literacy is measured using indicators developed by Chaffey (2023), which include aspects of understanding marketing technologies, data analysis capabilities, and the application of digital technologies. Digital Marketing Strategy is measured based on indicators adapted from Kotler et al. (2022), which include dimensions of social media use, content marketing, and digital advertising. Customer Satisfaction is measured using indicators developed by Oliver (1997), focusing on consumer expectations and perceptions of product quality. For Customer Loyalty, the indicators used are based on Dick & Basu (1994), which include emotional commitment, repurchase intention, and recommendations to others.

Data collection is carried out through the distribution of questionnaires both online and offline, with the assistance of enumerators who have been trained to ensure the smooth completion of the questionnaires and maintain data consistency. Before analysis, the collected data will undergo a validation and data cleaning process to ensure that the data used is complete, valid, without duplication, and minimizes biases that may affect the research results (Hair et al., 2023; Tabachnick & Fidell, 2013; Kline, 2015; Pallant, 2020; Kock, 2017).

The analysis technique used in this study is Partial Least Square - Structural Equation Modeling (PLS-SEM) with the latest version of SmartPLS software. PLS-SEM is chosen for its ability to handle complex models with a large number of variables and data that do not always meet the normality assumptions (Hair et al., 2025; Henseler et al., 2023; Ringle et al., 2024). The analysis process begins with testing the measurement model (outer model) to evaluate convergent validity (Average Variance Extracted/AVE), construct reliability (Composite Reliability and Cronbach's Alpha), and discriminant validity. After that, the structural model (inner model) is tested to examine the relationships between variables through path coefficients, R-square values, and significance tests based on bootstrapping techniques. Mediation analysis is conducted to examine the indirect effects of Digital Marketing Literacy and Digital Marketing Strategy on Customer Satisfaction and Customer Loyalty.

This research process is designed to be replicable by other researchers in similar contexts, namely the beauty industry applying digitalization in their marketing strategies. The replication of this study can be conducted with a similar methodological

design, tested constructs, and a relevant population in other beauty companies or sectors with comparable characteristics (Hair et al., 2023; Henseler et al., 2015; Kock, 2017; Kline, 2015; Fornell & Larcker, 1981).

RESEARCH RESULT

Descriptive Statistics

This study involved 190 respondents who are beauty product consumers in Pamekasan Regency. The majority of respondents were aged between 20 and 35 years (58.4%), followed by those aged 36 to 50 years (33.2%), with the remaining respondents aged above 50 years (8.4%). Most of the respondents were female (87%), with the majority having completed high school (53%) or higher education (44%). The average perception scores of the respondents were as follows: Digital Marketing Literacy (4.12), Digital Marketing Strategy (4.05), Customer Satisfaction (4.13), and Customer Loyalty (4.19). These values indicate that respondents have a generally high and positive perception of digital marketing literacy, the implementation of digital marketing strategies, customer satisfaction, and customer loyalty, reflecting a positive acceptance of the digital strategies implemented by beauty companies in the region.

Tabel 1
Evaluasi Outer Model

Konstruk	Loading Factor	AVE	Composite Reliability
Digital Marketing Literacy	> 0,70	> 0,50	> 0,70
Digital Marketing Strategy	> 0,70	> 0,50	> 0,70
Customer Satisfaction	> 0,70	> 0,50	> 0,70
Customer Loyalty	> 0,70	> 0,50	> 0,70

Source: Primary Data Processing (2025)

The results of the outer model testing indicate that all indicator items have a loading factor greater than 0.70, Average Variance Extracted (AVE) greater than 0.50, and composite reliability greater than 0.70. These findings suggest that all constructs in this model are valid and reliable.

Furthermore, discriminant validity was tested using the Fornell-Larcker criterion and HTMT (Heterotrait-Monotrait) Ratio. The results showed that all constructs had values below 0.90, confirming that the constructs in the model do not overlap conceptually. Therefore, discriminant validity can be considered acceptable. These findings support the robustness of the measurement model, indicating that the constructs used in this study are distinct and accurately measure the intended concepts.

Tabel 2

Inner Model Testing

Correlation	Path Coefficients (β)	p-value	Significant
Digital Marketing Literacy → Customer Satisfaction	0,615	< 0,001	Significant
Digital Marketing Strategy → Customer Satisfaction	0,575	< 0,001	Significant
Digital Marketing Literacy → Customer Loyalty	0,450	< 0,001	Significant
Digital Marketing Literacy → Customer Loyalty	0,475	< 0,001	Significant
Customer Satisfaction → Customer Loyalty	0,548	< 0,001	Significant

Source: Primary Data Processed (2025)

The results of the inner model testing in this study provide in-depth insights into the relationships between the variables tested and their contributions to consumer

loyalty in the beauty product sector. Table 2 presents the results of the path coefficients (β), p-values, and significance levels, offering a clear view of the direct influences between variables in the research model.

1. The Impact of Digital Marketing Literacy on Customer Satisfaction

The path coefficient between Digital Marketing Literacy and Customer Satisfaction is significant ($\beta = 0.615$; $p < 0.001$), indicating a positive and significant effect. This suggests that higher levels of digital marketing literacy applied by the company lead to higher levels of customer satisfaction with the products and services provided. In other words, companies with greater digital marketing literacy are more likely to deliver better experiences to customers, resulting in higher satisfaction.

2. The Impact of Digital Marketing Strategy on Customer Satisfaction

The relationship between Digital Marketing Strategy and Customer Satisfaction also shows a significant value ($\beta = 0.575$; $p < 0.001$). This demonstrates that effectively implemented digital marketing strategies have a positive impact on customer satisfaction. Successful digital marketing strategies, including the use of social media and online advertising, enhance the consumer experience and improve their perception of the brand.

3. The Impact of Digital Marketing Literacy on Customer Loyalty

Digital Marketing Literacy has a positive and significant effect on Customer Loyalty ($\beta = 0.450$; $p < 0.001$), indicating that consumers with a better understanding of digital marketing are more likely to remain loyal to the brand or product they choose. A deeper understanding of digital marketing helps consumers feel more connected to the brand and product, leading to increased loyalty..

4. The Impact of Digital Marketing Strategy on Customer Loyalty

Digital Marketing Strategy also has a positive and significant impact on Customer Loyalty ($\beta = 0.475$; $p < 0.001$). This suggests that effectively implemented digital marketing strategies directly contribute to consumer loyalty. The use of appropriate digital channels, such as relevant content marketing and data-driven promotions, strengthens the bond between consumers and the brand.

5. The Impact of Customer Satisfaction on Customer Loyalty

Customer Satisfaction has a significant positive impact on Customer Loyalty (β = 0.548; $p < 0.001$). Satisfied customers are more likely to remain loyal to the brand and even recommend the product to others. Customer satisfaction is a key factor in maintaining long-term relationships between the company and its customers.

Tabel 3

Pengujian Mediasi

Mediasi	Koefisien Mediasi (β)	p-value	Significancy
Digital Marketing Literacy → Customer Satisfaction → Customer Loyalty	0,324	< 0,01	Significant
Digital Marketing Strategy → Customer Satisfaction → Customer Loyalty	0,421	< 0,01	Significant

Sumber: Data primer diolah (2025)

The results of the mediation analysis presented in Table 3 underscore the mediating role of Customer Satisfaction in the relationship between Digital Marketing Literacy, Digital Marketing Strategy, and Customer Loyalty. Both mediation paths (Digital Marketing Literacy → Customer Satisfaction → Customer Loyalty and Digital Marketing Strategy → Customer Satisfaction → Customer Loyalty) demonstrate significant results, indicating that Customer Satisfaction plays a crucial role in linking digital marketing literacy and strategy with customer loyalty.

These findings highlight the importance of Customer Satisfaction as a mediator in both relationships. Specifically, the positive impact of digital marketing literacy and strategy on customer loyalty is partly driven by the satisfaction consumers experience through effective digital marketing practices. As customers' satisfaction with their interactions with the brand increases, so does their loyalty, further reinforcing the relationship between digital marketing efforts and sustained customer loyalty.

This mediation effect strengthens the argument that focusing on improving customer satisfaction is critical for enhancing customer loyalty. Companies aiming to increase customer loyalty should prioritize delivering satisfying and personalized experiences through digital marketing strategies and digital marketing literacy. These findings underscore the vital role of satisfaction in cultivating long-term relationships and ensuring sustained customer loyalty.

DISCUSSION

This study aimed to examine the relationships between Digital Marketing Literacy, Digital Marketing Strategy, Customer Satisfaction, and Customer Loyalty within the context of beauty products in Pamekasan Regency. The results obtained from the mediation analysis provide significant insights into the direct and indirect effects of digital marketing practices on customer loyalty.

1. The Impact of Digital Marketing Literacy on Customer Satisfaction

The findings of this study align with and expand upon previous research, confirming the crucial role of Digital Marketing Literacy in enhancing Customer Satisfaction. Several studies have pointed out that a high level of digital marketing literacy enables companies to develop more targeted and relevant marketing strategies, a concept that is consistent with our findings. For instance, Chaffey & Ellis-Chadwick (2024) and Kaur et al. (2023) emphasized that digital marketing literacy helps companies implement more effective strategies that meet consumer needs. Similarly, our study finds that a deep understanding of digital marketing directly enhances customer satisfaction, further validating this point.

This study's findings also echo Kotler et al. (2024), who explained that effective use of digital platforms contributes to better customer experiences. Our research applies this concept specifically to the beauty industry, highlighting how companies can leverage digital tools to improve consumer interactions and satisfaction in this sector. By understanding digital marketing, beauty companies can deliver more personalized and effective experiences, which ultimately lead to higher levels of customer satisfaction.

However, our study extends these findings by focusing on the beauty industry in a developing region, namely Pamekasan Regency. In a similar vein, Hossain & Khatun (2023) found that companies with strong digital marketing literacy can improve their relationships with customers. Our research reinforces this by demonstrating that digital marketing literacy not only improves the quality of interactions but also optimizes marketing strategies in local markets. This aspect is particularly relevant for regions with developing economies, where digital marketing can offer unique opportunities for businesses to engage with consumers.

Thus, while our findings confirm earlier studies, they also make a novel contribution by showing that Digital Marketing Literacy can significantly improve Customer Satisfaction in emerging markets, particularly within the beauty product industry. This highlights the importance of digital marketing knowledge and strategy in enhancing consumer experiences and fostering brand loyalty in developing regions.

2. The Impact of Digital Marketing Strategy on Customer Satisfaction

The findings of this study reinforce the importance of Digital Marketing Strategy in enhancing Customer Satisfaction, a relationship that has been emphasized in previous research. Sweeney & Soutar (2023) and Kumar et al. (2024) explain that well-planned digital marketing strategies, including the use of social media, email marketing, and personalized online advertisements, can create more satisfying consumer experiences. Our findings align with these studies, showing that effective digital marketing significantly improves customer satisfaction.

Dehghani & Tumer (2024) also highlight that the efficient and relevant use of digital technologies strengthens the relationship between companies and consumers. This is reflected in our study, which found a strong connection between digital marketing strategies and customer satisfaction. The results suggest that businesses that effectively use digital tools to engage consumers and personalize their interactions are more likely to improve consumer satisfaction.

Our findings further confirm that digital marketing strategies that focus on message personalization and timely responses play a crucial role in meeting consumer expectations. This concept is also discussed by Lee et al. (2024) and Junaedi et al. (2023). In this study, we take the analysis further by emphasizing how digital marketing strategies tailored to the local characteristics and market segments in Pamekasan

Regency can more effectively enhance customer satisfaction, particularly within the beauty product industry.

Thus, this study enriches our understanding of the importance of implementing the right digital marketing strategies. It also provides new insights into how these strategies can be applied effectively in a developing local market, contributing to more satisfying customer experiences and strengthening brand-consumer relationships in emerging regions.

3. The Impact of Digital Marketing Literacy on Customer Loyalty

The findings of this study align with and extend previous research, confirming that Digital Marketing Literacy has a significant positive impact on Customer Loyalty. This relationship is consistent with prior studies, which suggest that consumers with a better understanding of digital marketing feel more connected to the brands they engage with. For instance, Shankar & Jebarajakirthy (2024) and Sweeney et al. (2023) highlighted that consumers who are knowledgeable about digital marketing tend to develop stronger attachments to the brands they choose. Our findings reflect this, as we found that digital marketing literacy enhances consumer loyalty.

A deeper understanding of the value offered through digital marketing allows consumers to better appreciate the benefits they receive, thereby strengthening their commitment to the brand. This is in line with the work of Kumar & Shah (2023) and Zhou et al. (2023), who also revealed that consumers who receive relevant information and tailored offers based on their needs are more likely to remain loyal to the brand they choose. Our study confirms that digital marketing literacy enables consumers to become more aware of the benefits derived from their digital interactions with brands, which, in turn, strengthens their loyalty.

This research makes a novel contribution by emphasizing that digital marketing literacy not only affects the relationship between consumers and brands but also enhances loyalty in the context of local markets, particularly within the beauty product industry. By demonstrating how digital marketing literacy plays a critical role in fostering customer loyalty, this study enriches the understanding of how digital literacy contributes to loyalty in an increasingly digital marketing landscape.

In conclusion, this study underscores the importance of digital marketing literacy as a vital factor in cultivating consumer loyalty, especially in the rapidly evolving digital marketing environment. It highlights that empowering consumers with knowledge of digital marketing practices can strengthen their connection to brands, fostering long-term loyalty and engagement.

4. The Impact of Digital Marketing Strategy on Customer Loyalty

The findings of this study align with and reinforce prior research, confirming that Digital Marketing Strategy has a significant positive impact on Customer Loyalty, as evidenced by several previous studies. Chaffey & Ellis-Chadwick (2024) and Keller (2023) argue that effective digital marketing strategies can strengthen the personal connection between a company and its consumers, enhance their experiences, and ultimately build stronger loyalty. Our findings corroborate this by showing that the implementation of well-designed strategies makes consumers feel valued and more engaged, thereby reinforcing their commitment to the brand.

Zhou et al. (2023) and Lee et al. (2023) also emphasize the importance of personalization and relevance in digital marketing for fostering customer loyalty. Our study extends this understanding by demonstrating that digital channels enable companies to maintain continuous connections with consumers, offering more relevant and personalized experiences, which are critical in creating long-term loyalty.

Thus, this research not only confirms the results of previous studies but also makes a novel contribution by exploring how digital marketing strategies can be optimized to build customer loyalty, particularly in the context of the beauty product industry. Moreover, it highlights the importance of adapting these strategies to local markets, especially in emerging regions, to enhance consumer loyalty and engagement.

5. The Impact of Customer Satisfaction on Customer Loyalty

The findings of this study confirm the critical role of Customer Satisfaction as a key driver of Customer Loyalty, a relationship extensively discussed in prior research. Oliver (1997) and Zeithaml et al. (2024) highlight that customer satisfaction not only reflects their experience with products or services but also serves as an indicator of how well a company meets consumer expectations. Our findings support this view, demonstrating that consumers who are satisfied are more likely to continue choosing the same products in the future and become loyal customers.

Sharma et al. (2023) and Zeithaml & Bitner (2023) further assert that customer satisfaction is a strong predictor of loyalty, where satisfied consumers are more likely to repurchase and recommend the product to others. Our study strengthens this by revealing that maintaining customer satisfaction can significantly enhance long-term loyalty, particularly within the beauty product industry.

This research contributes importantly to the discourse by emphasizing that, to build strong customer loyalty, companies must consistently focus on customer satisfaction, which serves as the foundational step in creating long-lasting, mutually beneficial relationships. These findings underscore that satisfied customers are not only likely to continue their relationship with the brand but also to advocate for it, further reinforcing customer loyalty over time.

6. Mediation through Customer Satisfaction

The findings of this study confirm the significant mediating role of Customer Satisfaction in the relationship between Digital Marketing Literacy, Digital Marketing Strategy, and Customer Loyalty, aligning with previous research. This supports the work of Zhou & Lee (2023), who highlighted that customer satisfaction derived from positive digital experiences plays a crucial role in strengthening customer loyalty. Chaffey (2023) and Kumar & Shah (2024) also echo this view, emphasizing that customer satisfaction not only reflects their experience with the brand but also acts as a mediator, amplifying the impact of digital marketing literacy and strategy on loyalty. Hossain & Khatun (2023) and Lee et al. (2023) further underscore the mediating role of customer satisfaction in building long-term loyalty through positive digital experiences.

Our study contributes to this literature by emphasizing that companies successfully implementing digital marketing literacy and strategies that result in satisfying customer experiences are better positioned to foster stronger customer loyalty. This finding reinforces the idea that Customer Satisfaction serves as a crucial link in creating sustainable customer loyalty, particularly within the context of digital marketing in the beauty product industry. In conclusion, this research underscores the importance of Customer Satisfaction as a key mediator in enhancing customer loyalty. Companies that effectively leverage digital marketing practices to create satisfying experiences for

consumers can strengthen long-term relationships, ultimately ensuring sustained loyalty in an increasingly competitive digital marketplace.

CONCLUSION

This study reveals that Digital Marketing Literacy and Digital Marketing Strategy have a significant impact on Customer Satisfaction and Customer Loyalty within the beauty product industry in Pamekasan Regency. The key findings indicate that high digital marketing literacy allows companies to manage consumer interactions more effectively, which, in turn, enhances consumer satisfaction. Additionally, effective digital marketing strategies, such as using relevant digital channels and personalizing messages, strengthen the relationship between companies and consumers, which not only improves satisfaction but also increases customer loyalty. Customer satisfaction also plays a crucial role as a driving factor for long-term loyalty to the brand. The contribution of this research lies in emphasizing the importance of digital marketing literacy and strategies in building customer loyalty, offering practical implications for companies in the beauty industry. Theoretically, this study enriches the digital marketing literature by highlighting the role of digital literacy and marketing strategies within the context of local markets. However, the study has limitations, particularly regarding its geographical scope, as it focuses solely on Pamekasan Regency, which may limit the generalizability of the findings to other regions. For future research, it is recommended to expand the geographical scope and examine other variables that may affect the relationship between digital marketing literacy, marketing strategies, and customer loyalty. Practically, companies are advised to enhance digital marketing literacy among their teams and develop more data-driven and personalized strategies to strengthen relationships with consumers and increase long-term loyalty.

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