Entrepreneurial E-Commerce Marketing To Improve The Performance Of Micro, Small, And Medium Enterprises (MSMEs) In Bandar Lampung City

Komang Yunita Shakpuytri¹, Ni Putu Widhia Rahayu²
¹,² Universitas Bandar Lampung, Bandar Lampung, Indonesia
E-mail: ¹) yunita.skpt@gmail.com, ²) niputu@ubl.ac.id

Abstract
In Bandar Lampung, approximately 18% of MSMEs have not embraced e-commerce, despite its growing popularity and convenience. Limited access to technology and the internet, lack of digital literacy, concerns about security and trust, and traditional business practices are all factors contributing to this low adoption rate. This research aims to empirically investigate how digital marketing affects intellectual capital, perceived quality, and overall performance of MSMEs. Additionally, it explores the impact of MSMEs’ intellectual capital and perceived quality on their performance. Employing a quantitative approach with descriptive analysis, this study targets MSME actors in Bandar Lampung. The sampling strategy involves multi-stage cluster purposive sampling, selecting 366 respondents for data collection through an online questionnaire using Likert scales. The analysis is conducted using Smart PLS, and the results reveal that digital marketing significantly and positively influences intellectual capital, perceived quality, and overall performance of MSMEs. Furthermore, both intellectual capital and quality perception show a positive and significant influence on MSME performance.

Keywords: Digital Marketing, Intellectual Capital, Perceived Quality, MSME Performance

1. INTRODUCTION
The MSME sector, highlighted by (Alqurani, 2022), is widely recognized for its significant contribution to economic growth, employment opportunities, and income generation. It holds a central position in maintaining economic stability and establishing a balanced economic framework (Bakhri, 2020). Additionally, MSMEs play a vital role in providing employment, reducing unemployment, and serving as a source of income for numerous families (Florita et al., 2019). One of the key advantages of MSMEs is their ability to produce affordable products and services, maintain price stability, and cater to the diverse needs of the population (Wijoyo et al., 2021). However, in the face of globalization and technological advancements, MSMEs encounter new challenges. To overcome these challenges, they must leverage information technology, particularly e-commerce platforms, to expand their market reach and improve operational efficiency (Avriyanti, 2020). In this digital era, entrepreneurial marketing through e-commerce has emerged as a dominant trend, enabling MSMEs to reach customers from various backgrounds, enhance product visibility, and compete globally (Irawati dan Prasetyo, 2021). Moreover, entrepreneurial marketing through e-commerce not only drives the growth of MSMEs but also fosters connections among different stakeholders in the business ecosystem, including the government and consumers (Avriyanti, 2021).

According to the research conducted by Islami et al. (2020), Hamidah et al. (2020), and Hili (2022), the performance of Micro, Small, and Medium Enterprises (MSME) can be enhanced through the support of digital marketing. Additionally, the intellectual capital held by MSME actors and the perceived quality by buyers influence the improvement of MSME performance. Presently, there have been studies on MSME performance in Indonesia, covering various cities and provinces such as Bandar Lampung City (Rahayu & Tanjung, 2023), Ambon City (Hili, 2022), Pasuruan City (Fibriyani and Mufidah, 2018), and East Java Province (Islami et al., 2020).

While previous research on MSME performance in Bandar Lampung has been conducted, for example, by Rahayu and Tanjung (2023), the variables investigated differ as the earlier study focused on entrepreneurial marketing, organization, and the environment’s impact on MSME performance. In contrast, this research explores digital marketing, intellectual capital, and perceived quality concerning MSME performance. The variables examined in this study are adopted from the research of Islami et al. (2020); however, the novelty of this research lies in incorporating training indicators into the digital marketing variable, which was not explored in Islami et al.’s (2020) study, as an implication of the research findings.

Training in digital marketing is deemed crucial based on previous research findings, which identified weaknesses in MSME’s perceived quality. To address this situation, training programs are necessary (Islami et al., 2020). This study holds significant relevance given the strategic role of MSME in driving the local economy and the ability of e-commerce to support their growth. Through in-depth analysis of these relationships, the research aims to provide better guidance for stakeholders, including the government, MSME owners, and e-commerce industry players, in designing more effective strategies to support the development of the MSME sector in this digital era (Damayanti et al., 2024). In this context, the study will focus on the relationship between entrepreneurial marketing through e-commerce, intellectual capital, perceived quality, and the enhancement of MSME performance in Bandar Lampung.
2. LITERATURE REVIEW
2.1. Digital Marketing

The growth of digital technology in the modern era is proceeding with an extraordinary momentum (Ngamal and Perajaka, 2022). This phenomenon facilitates individuals to complete various tasks and activities without having to leave the comfort of their homes or offices (Ladjar, 2021). The increasingly pervasive and rapidly developing digital era provides unprecedented convenience (Ruskandi et al., 2021). The presence of digital technology, especially the easily accessible internet, offers unlimited opportunities for people to interact and engage (Rumondang et al., 2020). Now, one can easily socialize with friends from afar, access various information, enjoy digital literature, and even make shopping transactions with just the touch of their hands (Sugandini et al., 2019).

Entrepreneurs in the Micro, Small, and Medium Enterprises (MSME) category need to have an understanding of technology and leverage this opportunity to enhance their sales outcomes (Harto et al., 2023). MSME plays a crucial role in the dynamics of the Indonesian economy, particularly in creating jobs and providing support to family income (Wijaya, 2021). This has a positive impact on the government’s efforts to strengthen the foundation of the national economy and reduce poverty rates (Koperasi, 2005). The presence of MSME is expected to function as the main driver to stimulate economic growth in the current economic slowdown (Adam et al., 2023).

The term digital marketing has evolved from merely promoting products and services through digital platforms into a more profound concept involving the entire process chain, from attracting consumer attention, building interest, introducing products, maintaining communication with consumers, to increasing sales volume (Syahputro, 2020). Digital marketing is an activity that utilizes Information and Communication Technology (ICT) for marketing purposes. Its contribution is unparalleled or beginning to be abandoned. According to the American Marketing Association (AMA), digital marketing is defined as an action or step, from the product or service creation stage, promotion, to delivering marketing information to consumers and other stakeholders using digital technology (E. P. Lestari, 2010).

Marketing Mix or the 7Ps of digital marketing is a combination of strategic elements used by an organization to plan and execute marketing activities for products or services (Jannah, 2018). Through the marketing mix, companies aim to stimulate buying interest from potential consumers (Azizuddin et al., 2020). The increasing importance of information technology in various business activities is evident as it functions as a crucial facilitator for information exchange (Saputra et al., 2023).

Continuously emerging new technologies naturally replace some older technologies (Noperman, 2022). Thus, technological development in this digital era occurs with rapid dynamics. As outlined by (Jayabaya & Madiawati, 2018), the 7P components of the digital marketing mix are: a) Product, recognizing opportunities to innovate main products or expand their presence into the digital domain; b) Price, focusing on the consequences of pricing strategies in the digital market, which may involve exploring new pricing models; c) Place, reflecting distribution implications in the context of digital marketing; d) Promotion, managing communication methods utilized to educate
consumers and stakeholders about products and the company; e) People, investigating how company personnel engage with consumers and stakeholders at different stages, including sales, pre-sales, and post-sales communication; f) Process, considering the techniques and procedures applied by the company to organize comprehensive marketing functions, including aspects such as new product innovation, marketing, sales, and customer service; g) Physical Evidence, symbolizing the tangible manifestation of a product and its acquisition and utilization in the purchasing process.

Previous research stating that digital marketing has a positive and significant impact on intellectual capital includes (Islami et al., 2020), who conducted research on MSMEs in East Java. This finding aligns with (Laksana and Dharmayanti, 2018), who researched 4-star hotels in East Java. Similarly, (Leisander and Diah, 2017) studied 5-star hotels in East Java. Other studies, such as (Yuliati, 2020), also state that higher digital marketing correlates with increased intellectual capital. According to the research results of (Prabowo, 2018) on 3-star hotel industry, there is a positive impact of digital marketing on intellectual capital.

According to the research findings of (Prabowo, 2018), it emphasizes that digital marketing not only influences intellectual capital but also has an impact on perceived quality in 3-star hotels. In the research results of (Leisander and Diah, 2017), it is shown that digital marketing not only influences intellectual capital but also affects perceived quality in 5-star hotels in East Java. In the research results of (Laksana and Dharmayanti, 2018) on 4-star hotels in East Java, it describes that digital marketing not only influences intellectual capital but also perceived quality. Based on testing and data analysis from the research of (Islami et al., 2020), digital marketing has a significant direct positive influence on perceived quality in MSMEs in East Java. According to (Siswadi et al., 2023), digital marketing has a positive and significant impact on perceived value and perceived quality.

According to the findings of (Hili, 2022), digital marketing has a substantial positive impact on the performance of MSMEs, especially in the culinary sector. Furthermore, (Marjukah, 2022) also reveals that the implementation of digital marketing training, especially during the Covid-19 pandemic, not only strengthens the resilience of MSMEs but also leads to performance improvement over time. Research conducted by (Huda & Munandar, 2021) indicates a substantial positive effect of digital marketing on MSMEs. Furthermore, the research of (Effendi et al., 2023) shows that digital marketing significantly impacts the marketing performance of MSMEs in the city of Lhokseumawe. The research of (Murtadlo, 2021) indicates that digital marketing emerges as a crucial factor that positively influences the performance of MSMEs. Thus, the hypotheses proposed are as follows:

H1: Digital marketing has a positive and significant impact on intellectual capital
H3: Digital marketing has a positive and significant impact on perceived quality
H5: Digital marketing has a positive and significant impact on MSME performance

2.2. Intellectual Capital

Intellectual capital serves as a mechanism to integrate intangible assets, intellectual wealth, human resources, and infrastructure, facilitating effective corporate operations (Dewi & Dewi, 2020). It encompasses the expertise and knowledge possessed by
employees, along with the company's capacity to generate added value and achieve competitive advantage (Hartati, 2014). As a non-physical asset, efficient intellectual capital management has the potential to enhance company profitability and competitive positioning (Shiddiq & Yuyetta, 2013). For analytical purposes, intellectual capital is often categorized, with (Edvinsson & Malone, 1997) introducing the Scandia Navigator model, connecting it to the market value structure in Skandia. This model includes two market values for the company, divided into financial capital and intellectual capital, further categorizing intellectual capital into human capital and structural capital (Budiarso, 2014). Structural capital is then further divided into customer capital and organizational capital, with the latter further divided into innovation capital and process capital. Focusing on revenue, consumers, processes, updates and innovation, and human capital, this model shows that the combination of human and structural capital constitutes intellectual capital (Budiarso, 2014), a framework also adopted by the Organization for Economic Cooperation and Development (OECD).

Human capital is defined as the combination of knowledge, skills, innovation, and individual workers' abilities to fulfill their tasks (Swastari, 2013). It includes values, culture, and philosophy (Nugroho, 2010) and cannot be owned by the company. In contrast, structural capital includes hardware, software, databases, organizational structures, patents, trademarks, and organizational capabilities that support worker productivity (Andriana, 2014). Unlike human capital, structural capital is a tangible asset owned by the company and can be traded (Budiarso, 2014). Intellectual capital is the cumulative effect of human and structural capital (Budiarso, 2014). The Value Added Intellectual Coefficient (VAICT™) is a technique for indirect measurement developed by Pulic (1998) to evaluate the efficiency of intellectual capital and its value creation. Assessing the relationship between the capital used, human capital, and structural capital, VAICT™ functions as a Business Performance Indicator (Randa & Solon, 2012). This study explores the intellectual organization's capabilities, providing insights into the efficiency of value creation through tangible and intangible assets (Swartz et al., 2006). The model begins by measuring the company’s ability to generate added value (VA), calculated as the difference between the output and input of key business success indicators (Ulum, 2013).

To comprehensively explore the complex concept of intellectual capital, it is broken down into six dimensions: human capital, customer capital, structural capital, social capital, technological capital, and spiritual capital (Santoso, 2021). These dimensions can be explained as follows: a) Human capital includes education, insights, skills, mentality, and individual intellectual skills (Nuryati et al., 2023); b) Customer capital is closely related to customer loyalty, satisfaction, and brand image; c) Structural capital is related to the organizational framework, including databases, regulations, policies, and procedures that facilitate the flow of information; d) Social capital focuses on openness, social responsibility, effective communication, integrity, and ethical principles within an organization; e) Technological capital is related to the ability to update and develop new products and services, especially based on research and development (R&D) and intellectual property (ISHAK et al., 2022); f) Spiritual capital involves perspectives on religion and ethical aspects, with theories suggesting a positive and significant impact of intellectual capital on improving the performance of SMEs (Ishak et al., 2022).
Previous research conducted by (Hamidah et al., 2020), has shown a positive and significant influence of intellectual capital on the performance of SMEs. (Sampurnawati & Agustina, 2021) further investigated the impact of human resource competence and intellectual capital on SME performance, emphasizing the positive and influential role of intellectual capital in enhancing SME performance. According to the findings of (Fahtiansyah et al., 2022), research indicates a significant influence of intellectual capital on SME performance. Similarly, the results obtained by (Hutabarat, 2021) demonstrate a significant influence of intellectual capital on company performance. Therefore, the formulated hypothesis is as follows:

**H2:** Digital marketing has a positive and significant influence on intellectual capital.

### 2.3. Perceived Quality

Regarding perceived quality, it can be interpreted as a measure of how well the service quality received aligns with customer desires (Harjati & Venesia, 2015). A perception of good service is formed from various sources, such as past experiences, word of mouth, and advertising (Pristiwa, 2020). The quality of service, whether good or bad, depends on the consistent capability of the service provider to meet customer expectations.

Perceived quality by customers is a crucial factor for companies in influencing customer behavior and maintaining long-term relationships (Setiadi, 2019). Customers feel a fair treatment when they believe there is a fair balance between the sacrifices made and the experience gained. Understanding customer value helps marketers comprehend consumer attitudes when making decisions (Pahlevi, 2019).

Consumer views on the quality of a product or its excellence are crucial (Muharam and Soliha, 2017). If consumers do not fully understand the specific characteristics of the products they purchase, they tend to assess based on other aspects such as price, brand reputation, and the country of production (Kusumawati, 2018). Therefore, a profound understanding of the product can influence consumer perceptions and determine how they assess and compare the product with other options in the market (V. N. S. Lestari et al., 2023). According to Badri (2011), customers prioritize six main dimensions of product quality: a) Performance, emphasizing whether the product aligns with its intended use and whether services are delivered accurately; b) Range or type of features, beyond the main function, customers often seek additional features in a product; c) Maintainability and serviceability, including ease of product operation, repair capabilities, and the availability of replacement components; d) Sensory characteristics, such as factors like taste, attractiveness, appearance, smell, and other sensory elements, are crucial aspects of quality; e) Ethical profile and image, meaning quality significantly contributes to shaping the overall impression customers have of a product.

Service quality involves intangible efforts by organizations to provide a real experience for consumers. The assessment of service quality depends on consumer evaluations of services in meeting their expectations, needs, and desires. The key determinants of service quality are service expectations and perceptions (Wibowo et al., 2013). Satisfaction is achieved when the service aligns with customer expectations, with exceeding expectations considered as an ideal standard. Conversely, failing to meet expectations results in perceived unsatisfactory service. The effectiveness of service
quality depends on consistent efforts by providers to meet or exceed customer expectations (An’umilah, 2018). A comprehensive evaluation of service quality involves considering five dimensions: reliability, responsiveness, assurance, empathy, and physical evidence (Kalijogo, 2019).

Digital technologies such as 3D printing, AI, and VR can assist SMEs in improving product and service quality. For example, 3D printing aids in prototyping and precision improvement, while AI and VR enhance the consumer experience by providing innovative and appealing designs (Wijoyo et al., 2021; Firdaus et al., 2023). Previous research (Islami et al., 2020) indicates that perceived quality significantly impacts the performance of SMEs in East Java. Therefore, the hypothesis is as follows:

\[ H_4: \text{Perceived quality has a positive and significant impact on the performance of MSMEs} \]

2.4. MSME Performance

The definition of Micro, Small, and Medium Enterprises (MSMEs) is provided by Law Number 20 of 2008. Micro enterprises are productive businesses owned by individuals or sole proprietorships that meet specific requirements. Small enterprises are independent productive economic activities carried out by individuals or business entities that are not subsidiaries or branches of large companies. Medium enterprises, like Small Enterprises, are independent productive economic entities that meet certain criteria and are not included as branches or subsidiaries of large companies, whether directly or indirectly, and these criteria are based on the total annual sales and net worth as regulated by the law.

The performance of Micro, Small, and Medium Enterprises (MSMEs) reflects the achievements of individuals within the company, in line with their roles or responsibilities during a specified period. This performance evaluation is carried out against standards or specific values set by the company. In the financial management domain, the main emphasis is on the efficiency of MSMEs, with the goal not only to increase the owner’s wealth but also to strengthen the overall company value. Internal factors play a crucial role, forming the basis for leveraging strengths and enhancing organizational capabilities. These internal factors include human resources, financial components, technical and operational elements, as well as considerations related to the market and marketing (Sandra & Purwanto, 2017). Positive internal factors can be leveraged by companies to fulfill their missions, goals, and objectives (Fibriyani & Mufidah, 2018). Improving the performance of MSMEs can be achieved by raising product and service standards, expanding market reach, reducing costs, and adopting efficient management practices. Market and marketing aspects specifically consider consumer demand, including their preferences and needs.

Market and marketing aspects are closely related and mutually supportive, both aiming to fulfill and accommodate the desires and needs of consumers. In this context, the primary indicator of business success is the extent to which customer satisfaction can be achieved. The market can be interpreted as the arena or place where interactions and transactions occur between sellers and buyers, where each party strives to meet each other's needs and expectations (Sawlani, 2021). This research is adopted from the study by Islami et al., (2020). However, it is developed by adding training indicators adopted from Nurhidayad and Purba (2019) as a novelty in the digital marketing variable that has
not been explored by Islami et al., (2020). Based on the literature review explained earlier, the conceptual framework of the study can be seen in the following Figure 1.

![Figure 1. Conceptual Framework](image)

3. RESEARCH METHODS

In this study, a quantitative approach with descriptive analysis is employed, and the analytical tool used is Smart PLS. The research comprises four variables, namely three independent variables: digital marketing, intellectual capital, perceived quality, and one dependent variable, which is the performance of MSMEs. Digital marketing consists of five indicators: transactions or costs, incentive programs, website design, interactivity, adopted from the study by (Young Kim & Kim, 2004), while training is adopted from the research by (Nurhidayad & Purba, 2019). Intellectual capital consists of three indicators: human capital, structural capital, customer capital, adopted from the study by (Bontis, 1998). Perceived quality consists of six indicators: features, reliability, suitability, durability, serviceability, aesthetics, adopted from the research by (Leelapongprasut et al., 2005). MSME performance consists of synchronized roles adopted from the study by (Srimulyani et al., 2023), role gaps adopted from the research by (Ibidunni et al., 2020), role expansion adopted from the study by (Gonzalez-Tamayo et al., 2023), role scripts adopted from the research by (Feng et al., 2023), and role sets adopted from the study by (Pieter & Utomo, 2023).

The research population consists of 4,446 MSMEs in one district in the city of Bandar Lampung, namely Tanjung Karang Pusat. The sampling technique used is cluster random sampling. The minimum sample size is determined using the Slovin formula, which is 366 respondents. Slovin's Formula: 
\[ n = \frac{N}{1 + N(e)^2} = \frac{4446}{1 + 4446 (0.05)^2} = 366, \]
where \( n \) = sample size, \( N \) = population size, \( e \) = sampling error level (\( e=5\% \)). Data is collected by distributing online questionnaires to respondents using Google Forms with the link https://docs.google.com/forms/d/e/1FAIpQLSdTxHPM63svD5qk5sem-8aE8ewVY326iO-2Um80WJuAw5A/viewform. Data quality evaluation includes assessing validity, reliability testing, and normality testing. Validity testing involves an
external loading examination, where indicators are considered valid if their loading factors exceed 0.7. Additionally, validity testing considers the Average Variance Extracted (AVE) values. Discriminant validity is also explored through Cross Loading, which examines measurement item relationships. Reliability testing focuses on composite reliability, with values exceeding 0.8 indicating high reliability, and values above 0.6 indicating sufficient reliability, following recommendations by Hair et al., (2018). Cronbach's Alpha is used for reliability testing, with values suggested to exceed 0.6 for reliability. Normality testing assesses Skewness and Kurtosis values, considering data as normal if below 2.000 (<2.000). Furthermore, a Goodness of Fit test is conducted to facilitate hypothesis testing.

4. RESULTS AND DISCUSSION

4.1. Result

An overview of the characteristics of MSME actors in Bandar Lampung focusing on age, income, and type of MSME is outlined in Table 1, utilizing data collected from 366 respondents.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>15 – 20</td>
<td>10.6%</td>
</tr>
<tr>
<td></td>
<td>21 – 30</td>
<td>47%</td>
</tr>
<tr>
<td></td>
<td>31 – 40</td>
<td>32.8%</td>
</tr>
<tr>
<td></td>
<td>41 – 50</td>
<td>9.6%</td>
</tr>
<tr>
<td>Income</td>
<td>0 - Rp. 50,000,000</td>
<td>57.1%</td>
</tr>
<tr>
<td></td>
<td>Rp. 50,000,000 - Rp. 500,000,000</td>
<td>34.8%</td>
</tr>
<tr>
<td></td>
<td>Rp. 500,000,000 - Rp. 10,000,000,000</td>
<td>8.1%</td>
</tr>
<tr>
<td>Type of MSMEs</td>
<td>Fashion</td>
<td>32.8%</td>
</tr>
<tr>
<td></td>
<td>Culinary</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Agro business</td>
<td>17.2%</td>
</tr>
</tbody>
</table>

Source: Output SmartPLS (2023)

Data quality tests need to be carried out before hypothesis testing. Data quality tests include validity test, reliability test, normality test.

4.1.1. Validity Test

The first validity test is held with convergent validity (outer loading and average variance extracted) and discriminant validity (cross loading).

a. Convergent Validity

a) Outer Loading

Validity testing involves examining the outer loading, where indicators are considered valid if they have a factor loading greater than 0.7. As per the SmartPLS output, the factor loadings are in the range of 0.828 - 0.929 for digital marketing variables, 0.836 - 0.918 for intellectual capital variables, 0.867 - 0.923 for perceived quality variables, and 0.860 - 0.900 for MSME performance variables. So, the conclusion is that all statement items are valid and hypothesis testing can be done.
b) Average Variance Extracted (AVE)

An alternative method for assessing data validity involves examining the square root of the average variance extracted (AVE), with a recommended threshold of 0.5. In this study, the AVE value is:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Marketing (X1)</td>
<td>0.812</td>
</tr>
<tr>
<td>Intellectual capital of MSMEs (X2)</td>
<td>0.798</td>
</tr>
<tr>
<td>Perceived quality (X3)</td>
<td>0.806</td>
</tr>
<tr>
<td>MSME performance (Y)</td>
<td>0.780</td>
</tr>
</tbody>
</table>

Source: Output SmartPLS (2023)

The table presented shows AVE values above 0.5 for all constructs in the research model, which indicates their qualification. Thus, it can be concluded that all statement items are valid and can be carried out for hypothesis testing.

b. Discriminant Validity

a) Cross Loading

Cross Loading is an evaluation of discriminant validity on measurement items. Each measurement item has a higher correlation with variables that correlate with other variables. Overall, each item correlates more with the variable it measures or the discriminant validity evaluation is fulfilled. Based on SmartPLS output, it is known that cross loading gives results in the range of 0.826 - 0.929 for digital marketing variables, intellectual capital variables are in the range of 0.836 - 0.925, perceived quality variables are in the range of 0.867 - 0.923, and MSME performance variables are in the range of 0.860 - 0.900.

4.1.2. Reliability Test

a) Composite Reliability

To assess composite reliability, a value of \( \rho_c \) exceeding 0.8 indicates high reliability, while \( \rho_c \) exceeding 0.6 is considered quite reliable (Chin, 1998, cited in Latan and Ghozali, 2012). The details can be seen in Table 3.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Marketing (X1)</td>
<td>0.991</td>
</tr>
<tr>
<td>Intellectual capital of MSMEs (X2)</td>
<td>0.991</td>
</tr>
<tr>
<td>Perceived quality (X3)</td>
<td>0.985</td>
</tr>
<tr>
<td>MSMEs performance (Y)</td>
<td>0.972</td>
</tr>
</tbody>
</table>

Source: Output SmartPLS (2023)

Table 3 shows that the composite reliability value proves the high reliable results for all variables with numbers exceeding 0.8. Therefore, the conclusion is that all variables are reliable and hypothesis testing can be done.
b) Cronbach’s Alpha

The reliability test was strengthened through Cronbach’s Alpha, and the results can be seen in Table 4 as follows:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Marketing (X1)</td>
<td>0.991</td>
</tr>
<tr>
<td>Intellectual capital of MSMEs (X2)</td>
<td>0.991</td>
</tr>
<tr>
<td>Perceived quality (X3)</td>
<td>0.984</td>
</tr>
<tr>
<td>MSMEs performance (Y)</td>
<td>0.969</td>
</tr>
</tbody>
</table>

Source: Output SmartPLS (2023)

The recommended value of Cronbach’s Alpha exceeds 0.6 until the data above that the research data is in accordance with the Cronbach's Alpha value which has exceeded 0.6, thus the conclusion is that all variables can be tested hypotheses and are reliable.

4.1.3. Normality Test

Based on the results of the normality test using SmartPLS, it is known that the Excess Kurtosis X1 value is -0.771, the Excess Kurtosis X2 value is 0.195, the Excess Kurtosis X3 value is 0.459, and the Excess Kurtosis Y value is 1.119. The Skewness value of X1 is -0.962, the Skewness value of X2 is -1.064, the Skewness value of X3 is -1.057, and the Skewness value of Y is -1.448. Thus, it can be concluded that the data is normally distributed because the value is below 2.000.

4.1.4. Goodness of Fit (GOF)

Based on the calculation results, it is known that the Goodness of Fit (GoF) value in this study is 0.750, which means that the model in this study falls into the GoF large or strong category. For the model to meet the fit criteria, the SMSR value must be less than 0.05, following the recommendations of Cangur and Ercan (2015). However, the SmartPLS website guidelines propose additional considerations, including theta RMS value less than 0.102, SRMR value less than 0.10 or 0.08, and NFI value greater than 0.9 which are summarized in Table 5.

<table>
<thead>
<tr>
<th>Saturated Model</th>
<th>Estimated Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRMR</td>
<td>0.031</td>
</tr>
<tr>
<td>d_ULS</td>
<td>3.244</td>
</tr>
<tr>
<td>d_G</td>
<td>5.470</td>
</tr>
<tr>
<td>Chi-Square</td>
<td>9156.582</td>
</tr>
<tr>
<td>NFI</td>
<td>0.821</td>
</tr>
<tr>
<td>rms Theta</td>
<td>0.098</td>
</tr>
</tbody>
</table>

Source: Output SmartPLS (2023)

Regarding the presented model fit indices, the NFI value is recorded at 0.821, which is below the accepted threshold of 0.9. According to the model assessment criteria, this indicates that the model does not meet the specified fit standards. However, when
considering the SRMR (Standardized Root Mean Square Residual) value of 0.043 (below 0.10) and RMS Theta (Root Mean Square Theta) at 0.098 (below 0.102), it is concluded that the model fits well with the provided data. Consequently, the model is considered to be effectively aligned with the dataset.

4.1.5. R-Square

The criteria for the value of $R^2$ consists of three classifications, namely $R^2$ of 0.67 is said to be substantial, $R^2$ of 0.33 is said to be moderate or moderate, $R^2$ of 0.19 is said to be weak or weak. The results of the R Square test can be seen in Table below.

<table>
<thead>
<tr>
<th>Variable</th>
<th>R Square</th>
<th>R Square Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance of MSMEs (Y)</td>
<td>0.871</td>
<td>0.870</td>
</tr>
<tr>
<td>Perceived Quality (X3)</td>
<td>0.627</td>
<td>0.626</td>
</tr>
<tr>
<td>Intellectual Capital of MSMEs (X2)</td>
<td>0.706</td>
<td>0.705</td>
</tr>
</tbody>
</table>

Source: Output SmartPLS (2023)

Table 6 shows that there is an R-Square value of 0.871, 0.627, and 0.706 which means substantial. This indicates that MSME performance, perceived quality, and intellectual capital have an effect of 87%, 62%, and 70%, while the rest is influenced by other variables.

4.1.6. Hypothesis Test

For hypothesis testing using smartPLS by looking at the estimate table for path coefficients. Testing in this study was carried out with the bootstrapping procedure,
Table 7 shows the model to see the construction relationship and significant values in the Path:

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Original Sample (O)</th>
<th>Sample Mean (M)</th>
<th>Standard Deviation (STDEV)</th>
<th>T Statistics (O/STDEV)</th>
<th>P Values</th>
<th>Desc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Marketing -&gt; Intellectual Capital of MSMEs</td>
<td>0,840</td>
<td>0,841</td>
<td>0,024</td>
<td>34,842</td>
<td>0,000</td>
<td>Significant</td>
</tr>
<tr>
<td>Intellectual Capital of MSMEs -&gt; Performance of MSMEs</td>
<td>0,270</td>
<td>0,268</td>
<td>0,051</td>
<td>5,343</td>
<td>0,000</td>
<td>Significant</td>
</tr>
<tr>
<td>Digital Marketing -&gt; Perceived Quality</td>
<td>0,792</td>
<td>0,793</td>
<td>0,026</td>
<td>29,962</td>
<td>0,000</td>
<td>Significant</td>
</tr>
<tr>
<td>Perceived Quality -&gt; Performance of MSMEs</td>
<td>0,441</td>
<td>0,442</td>
<td>0,045</td>
<td>9,813</td>
<td>0,000</td>
<td>Significant</td>
</tr>
<tr>
<td>Digital Marketing -&gt; MSMEs Performance</td>
<td>0,288</td>
<td>0,288</td>
<td>0,052</td>
<td>5,512</td>
<td>0,000</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Source: Output SmartPLS (2023)

Based on the data above, the resulting P values show results below 0.05 which can be explained as follows:

1. Digital marketing has a positive and significant impact on the intellectual capital of MSMEs. It has a P-value of 0.000, which is significant as it is smaller than 0.05. Thus, it can be stated that there is a significant positive relationship between digital marketing and the intellectual capital of MSMEs. The value of 0.840 indicates a positive relationship, confirming that digital marketing has a significant positive impact. Therefore, the first hypothesis is accepted.

2. The positive influence of intellectual capital on performance with a P-value of 0.000, exceeding the significance threshold of 0.05, proves that the intellectual capital of MSMEs has a substantial and positive impact on MSMEs' performance. The positive coefficient value of 0.270 further confirms the noteworthy positive relationship, leading to the validation of the second hypothesis.

3. The positive impact of digital marketing on perceived quality with a P-value of 0.000, falling below the critical level of 0.05, indicates a significant correlation between Digital Marketing and its positive impact on perceived quality. The substantial positive coefficient value of 0.792 strengthens this finding, confirming the third hypothesis.

4. The constructive effect of perceived quality on the performance of MSMEs with a P-value of 0.000, indicating significance below 0.05, reveals a significant and positive relationship between perceived quality and MSMEs' performance. The positive coefficient value of 0.441 further supports the substantial positive relationship, leading to the acceptance of the fourth hypothesis.

5. The positive contribution of digital marketing to the performance of MSMEs with a P-value of 0.000, below the critical threshold of 0.05, indicates a meaningful
relationship between digital marketing and its positive impact on the performance of MSMEs. The positive coefficient value of 0.288 further confirms the significant positive relationship, resulting in the acceptance of the fifth hypothesis.

4.2. Discussion

4.2.1. Digital Marketing has a Positive and Significant Impact on MSMEs' Intellectual Capital

The study by Islami et al. (2020) revealed a beneficial relationship between digital marketing and MSMEs' intellectual capital. A path coefficient of 0.744, accompanied by a statistically significant T-value of 13.148 (far exceeding 1.96) and a p-value below 0.05, indicates a substantial positive impact of digital marketing on intellectual capital. Consequently, it validates the first hypothesis. This research is supported by studies from Islami et al., (2020); Laksana and Dharmayanti (2018); Liesander and Diah (2017); Yuliati (2020); Prabowo (2018).

4.2.2. Intellectual Capital has a Positive and Significant Impact on MSMEs' Performance

According to Hamidah et al. (2020), the results of multiple regression analysis highlight the positive and significant influence of intellectual capital on MSMEs' performance. With a coefficient of 0.295 and a noteworthy p-value of 0.000, this study concludes that intellectual capital actively contributes to overall MSMEs' performance. This finding is supported by research from Hamidah et al., (2020); Sampurnawati and Agustina (2021); Fahtiansyah (2022); Hutabarat (2021).

4.2.3. Digital Marketing has a Positive and Significant Impact on Perceived Quality

Siswadi et al. (2023) affirm that digital marketing has a significant and positive impact on perceived value and perceived quality. SmartPLS analysis yields a p-value of 21.732 (<0.50) and a t-value exceeding 1.96, supporting the idea that digital marketing significantly enhances perceived quality. This research is supported by studies from Prabowo (2018); Leisander and Diah (2017); Laksana and Dharmayanti (2018); Islami et al., (2020); Siswadi et al., (2023).

4.2.4. Perceived Quality has a Positive and Significant Impact on MSMEs' Performance

According to the study by Islami et al. (2020), it is established that perceived quality has a significant and positive impact on MSMEs' performance in East Java. The T-statistic value of 1.833, exceeding 1.65, and a p-value below 0.10, along with a positive coefficient of 0.214, emphasizes the positive impact of perceived quality on MSMEs' performance. This research is supported by the findings of Islami et al., (2020).

4.2.5. Digital Marketing has a Positive and Significant Impact on MSMEs' Performance

A study by Hili (2022) emphasizes that effective digital marketing strategies significantly enhance MSMEs' performance. With a P-value of 0.021 (<0.05) and a positive coefficient of 0.441, this research confirms that well-executed digital marketing
strategies correlate with improved performance in the MSMEs' food sector. The positive coefficient direction indicates that optimal digital marketing strategies lead to superior performance, supporting the hypothesis that digital marketing has a positive impact on MSMEs' performance in Ambon City. This research is supported by studies from Hili (2022); Marjuka (2022); Huda and Munandar (2021); Murtadlo (2021).

5. CONCLUSION

In summarizing the research findings on various factors influencing MSMEs' performance, several key conclusions emerge. Firstly, digital marketing demonstrates a positive and significant impact on MSMEs' intellectual capital, highlighting the importance of a robust online presence for enhancing intellectual assets. Secondly, intellectual capital itself exhibits a positive and significant influence on MSMEs' overall performance, emphasizing the vital role of intellectual resources in driving success. Moreover, digital marketing contributes significantly to the perceived quality of MSMEs, underlining the importance of online strategies in shaping consumer perceptions. This perceived quality, in turn, positively influences MSMEs' performance, indicating the interconnectedness of marketing efforts and overall business success.

Moving forward, several recommendations arise from these conclusions. Addressing the specific aspects of digital marketing, attention should be directed towards enhancing credit card security (X1.1) to build and maintain consumer trust. For intellectual capital, fostering close relationships between MSME players and employees is crucial (X2.20) to amplify the positive impact on business performance. Moreover, consistently delivering excellent service (X3.9) is imperative for sustaining and improving perceived quality, thereby positively impacting MSMEs' overall performance. Lastly, ensuring compliance with E-commerce regulations (Y1) is highlighted as a key factor for MSMEs, streamlining transactions and contributing to enhanced performance. These recommendations provide actionable insights for MSME players to optimize their digital marketing strategies, intellectual capital management, and overall business performance.

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