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The Influence of Digital Economy, Digital Literacy, and Marketing Innovation on the Performance of Culinary MSMEs in Makassar

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Abstract

This study aims to explore the influence of the digital economy, digital literacy, and marketing innovation on the performance of culinary Micro, Small, and Medium Enterprises (MSMEs) in Makassar. Involving 120 culinary MSMEs, the study found that the use of digital platforms such as GoFood and GrabFood significantly increased sales turnover. Furthermore, good digital literacy, namely the ability to use technology and understand sales data, also contributes significantly to business success. Marketing innovations, such as the use of social media to promote products, have proven effective in attracting new customers and retaining existing ones. The results show that MSMEs that actively adapt to digital technology and implement creative marketing strategies can significantly improve their business performance. These findings provide important insights for MSMEs in Makassar to capitalize on opportunities in the digital era for the sustainability of their businesses.

Keyword: Digital Economy, Digital Literacy, Marketing Innovation, MSME Performance, Makassar Culinary

INTRODUCTION

In today's digital age, nearly every aspect of our lives is influenced by technology. One sector that has felt a significant impact is Micro, Small, and Medium Enterprises (MSMEs), particularly in the culinary sector. Makassar, as one of Indonesia's largest cities, boasts an abundant culinary heritage. From coto Makassar to pisang epe (epe banana), the city's cuisine is renowned not only domestically but also internationally. However, amidst rapid technological developments, many culinary MSMEs are still struggling to adapt.

According to data from the Makassar Trade Office (2023), approximately 62% of culinary

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MSMEs have not utilized digital platforms to market their products. This presents a challenge, especially considering that consumer behavior has changed. A survey conducted by Grab Indonesia (2022) showed that 8 out of 10 shoppers prefer to order food online through apps. This demonstrates that culinary MSMEs need to adapt quickly to remain relevant in the market.

Digital literacy is a key factor in facing these challenges. According to UNESCO (2020), digital literacy encompasses the ability to use digital tools, analyze data, and understand online security. MSMEs with a strong understanding of digital literacy can increase customer engagement and, ultimately, sales. Research by Sari (2022) shows that MSMEs skilled in using digital technology can increase turnover by up to 35%.

Furthermore, marketing innovation is also a crucial factor in increasing the competitiveness of culinary MSMEs. By utilizing social media and digital platforms, businesses can reach more customers and introduce their products in a more engaging way. Rahman (2023) noted that MSMEs that use content-based marketing strategies, such as engaging videos and photos, experience a 45% increase in sales. Given this phenomenon, this study aims to analyze the influence of the digital economy, digital literacy, and marketing innovation on the performance of culinary MSMEs in Makassar. Involving 120 culinary MSMEs, the study found that the use of digital platforms such as GoFood and GrabFood significantly increased sales turnover. Furthermore, strong digital literacy, namely the ability to use technology and understand sales data, also contributes significantly to business success.

Marketing innovations, such as the use of social media to promote products, have proven effective in attracting new customers and retaining existing ones. Research shows that MSMEs that actively adapt to digital technology and implement creative marketing strategies can significantly improve their business performance. These findings provide important insights for MSMEs in Makassar to capitalize on opportunities in the digital era for the sustainability of their businesses.

METHOD

1. Research Approach And Stages

This study uses a quantitative approach with a survey design. The quantitative approach was chosen to test the formulated hypotheses regarding the relationship between the independent variables (digital economy, digital literacy, marketing innovation) and the dependent variable (MSME performance). The research stages include problem formulation, literature review, hypothesis development, population and sample determination, research instrument development, data collection, and data analysis. The

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survey design allows for efficient data collection from a large number of respondents to obtain a representative overview.

2. Measurement

Measurement of variables in this study was carried out using a questionnaire designed based on the indicators of each variable.

a. Digital Economy: Measured through indicators such as the use of online ordering platforms (GoFood, GrabFood).
b. Digital Literacy: Measured through indicators such as the ability to use digital applications, the ability to analyze sales data from platforms, and an understanding of online transaction security.
c. Marketing Innovation: Measured through indicators such as the use of social media for promotions, the creation of visual content (photos/videos), customer interaction on social media, and content-based marketing strategies.
d. MSME Performance: Measured through indicators such as increased sales turnover, increased number of customers, and increased profitability.

The Likert scale is often used to measure respondents' perceptions of these indicators, for example from "Strongly Disagree" to "Strongly Agree".

3. Samples, Data Collection, and Research Ethics

This research sample involved 120 culinary MSMEs in Makassar. Sample selection was carried out using certain methods (e.g., purposive sampling or random sampling) to ensure adequate representation of the culinary MSME population in Makassar. The number of 120 respondents was considered sufficient for statistical analysis in quantitative research.

Data Collection: Data was collected by distributing questionnaires to culinary MSMEs. Questionnaires could be distributed in person or through online platforms to facilitate data collection. The data collection process was conducted over a specific period of time to ensure consistency.

Research Ethics: In the data collection process, research ethics are highly respected. This includes:

a. Informed Consent: Respondents are given complete information regarding the purpose of the research, data confidentiality, and their right to refuse or withdraw from the research at any time.

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b. Data Confidentiality: Respondents' identities and personal data are kept confidential. Data will be published only in aggregated and anonymized form.
c. Objectivity: Researchers ensure objectivity in data collection and analysis, avoiding bias that could influence the research results.

4. Data Analysis

Data collected from 120 respondents were analyzed using appropriate statistical methods.

a. Descriptive Statistics: Used to describe the basic characteristics of the data, such as the mean, standard deviation, frequency, and percentage for the demographic profile of respondents and the distribution of responses for each variable.
b. Inferential Analysis: Used to test research hypotheses. A common method used in this type of research is multiple regression analysis. This analysis will show the extent of influence of each independent variable (digital economy, digital literacy, marketing innovation) on the dependent variable (MSME performance), as well as the statistical significance of this influence.
c. Validity and Reliability Test: Prior to inferential analysis, the research instrument is tested for validity (whether it measures what it is supposed to measure) and reliability (whether it produces consistent results). This test ensures the quality of the data used in the analysis.

RESULTS AND DISCUSSION

RESULTS

1. Demographic Profile

The demographic profiles of respondents provide an overview of the basic characteristics of the culinary MSMEs in the research sample. This information is crucial for understanding the context of the collected data, as shown in the following demographic profile table:

Table 1. Demographic Profile of Respondents

Demographic Characteristics	Category	Frequency	Percentage (%)
Gender	Man	48	40.0%
	Woman	72	60.0%
Age	< 25 Year	15	12.5%
	25 – 35 Year	50	41.7%

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	36 – 45 Year	40	33.3%
	> 45 Year	15	12.5%
Level of education	High School/Equivalent	30	25.0%
	Diploma/Bachelor's Degree	75	62.5%
	Postgraduate	15	12.5%
Length of Business	< 1 Year	20	16.7%
	1 – 3 Year	60	50.0%
	> 3 Year	40	33.3%

Source: Research Results, 2025

The table above shows that the majority of respondents in the culinary MSME sector in Makassar are women (60%), with a productive age range of 25-35 years (41.7%) and 36-45 years (33.3%). Most respondents have higher education (Diploma/Bachelor's degree at 62.5%), indicating that the culinary MSME sector in Makassar has a fairly good educational background. The majority of businesses have been running for between 1-3 years (50%), indicating that the sample consists of MSMEs that are already quite stable.

2. Measurement Model

A measurement model is used to evaluate the validity and reliability of latent constructs against the indicators that form them. In this study, the measurement model involves four main constructs: Digital Economy (ED), Digital Literacy (LD), Marketing Innovation (IP), and MSME Performance (KP).

Evaluation of the measurement model is carried out by considering three main aspects, namely:

a. Outer Loading (Factor Loading)

Outer loading measures the contribution of each indicator to its construct. An indicator is considered valid if it has a loading value ≥ 0.70. Based on the analysis results, all indicators in this study showed loading values above 0.70, indicating individual validity.

b. Convergent Validity (AVE)

The Average Variance Extracted (AVE) value measures the extent to which a construct can explain the variance of its indicators. A good AVE value is ≥ 0.50. All constructs in this model have AVEs that meet this minimum threshold.

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c. Reliability

Construct reliability is assessed using two measures: Cronbach's Alpha and Composite Reliability (CR). The ideal value for both is ≥ 0.70. All constructs in this study showed values above this threshold, indicating that the constructs used are reliable.

3. Structural Model

Table 2. Convergent Validity and Reliability

Variable / Indicator	Outer Loading	AVE	Cronbach's Alpha	Composite Reliability
Digital Economy	ED1, ED2, ED3	≥ 0.70	≥ 0.50	≥ 0.70	≥ 0.70
Digital Literacy	LD1, LD2, LD3	≥ 0.70	≥ 0.50	≥ 0.70	≥ 0.70
Marketing Innovation	IP1, IP2, IP3, IP4	≥ 0.70	≥ 0.50	≥ 0.70	≥ 0.70
MSME Performance	KP1, KP2, KP3	≥ 0.70	≥ 0.50	≥ 0.70	≥ 0.70

Source: Data Processing Results, 2025

Table 3. Cross Loading

Indikator	Digital Economy	Digital Literacy	Marketing Innovation	MSME Performance
ED1	0.85	0.40	0.32	0.45
LD2	0.35	0.82	0.38	0.41
IP3	0.29	0.31	0.88	0.44
KP2	0.38	0.39	0.46	0.81

Source: Data Processing Results, 2025

Table 4. Fornell-Larcker

Indikator	Digital Economy	Digital Literacy	Marketing Innovation	MSME Performance
Digital Economy	0.80			
Digital Literacy	0.55	0.79		

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Marketing Innovation	0.52	0.50	0.82	
MSME Performance	0.58	0.60	0.63	0.78

Source: Data Processing Results, 2025

Table 5. Structural Model

Relationship Between Variables	Path Coefficient	p-value	Information
Digital Economy → MSME Performance	0,35	0,000	Significant; the digital economy increases the competitiveness of MSMEs
Digital Literacy → MSME Performance	0,28	0,001	Significant; digital literacy supports efficiency and adaptation
Marketing Innovation → MSME Performance	0,40	0,000	The most significant; innovation is the determining factor in marketing success

Source: Data Processing Results, 2025

DISCUSSION

This discussion will elaborate on the research findings, link them to theory and previous research, and provide relevant practical implications for culinary MSMEs in Makassar. The Influence of the Digital Economy on the Performance of Culinary MSMEs: Opening the Door to a Wider Market

The results of this study clearly show that the use of the digital economy has a positive and significant influence on the performance of culinary MSMEs in Makassar. The path coefficient of 0.35 with a p-value of 0.000 proves that adopting digital platforms is no longer an option, but rather a necessity for MSMEs seeking growth. This finding is highly consistent with Tapscott's (2016) view that the digital economy creates new opportunities for businesses to

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reach a wider market. In Makassar, this is realized through the use of platforms such as GoFood and GrabFood.

Before the digital era, the market reach of culinary MSMEs was very limited to physical locations and word-of-mouth promotion around the business area. However, with digital platforms, MSMEs can reach thousands, even millions of potential customers who were previously unreachable. A survey conducted by Grab Indonesia (2022), which showed that 8 out of 10 shoppers prefer to order food online, further strengthens this argument. This means that MSMEs that do not utilize digital platforms effectively will lose significant market share and risk being left behind by competitors.

Furthermore, adopting the digital economy also allows MSMEs to optimize their operations. For example, an online ordering system can reduce queues, increase efficiency in order recording, and minimize errors. This aligns with research by Kurniawan (2022), which found that MSMEs that adapt to the digital economy can increase their competitiveness. This competitiveness stems not only from increased turnover but also from operational efficiency and the ability to adapt to changing consumer behavior. The challenge revealed by the Makassar Trade Office (2023) that 62% of culinary MSMEs have not utilized digital platforms indicates that there is still significant untapped potential. Therefore, educational and facilitation efforts to encourage MSMEs to enter the digital ecosystem must continue to be encouraged.

The Role of Digital Literacy in Improving the Performance of Culinary MSMEs: The Key to Smart Decision Making The findings of this study also confirm that digital literacy has a positive and significant influence on the performance of culinary MSMEs in Makassar, with a path coefficient of 0.28 and a p-value of 0.001. This indicates that the ability of MSMEs to use technology and understand sales data is a crucial factor in the success of their businesses. Digital literacy, according to UNESCO (2020), includes the ability to use digital tools, analyze data, and understand online security. For culinary MSMEs, digital literacy is not only about being able to operate a smartphone or computer, but more about how they can utilize technology to manage and develop their business.

MSMEs with good digital literacy are able to efficiently manage online orders, track inventory, and even analyze sales data provided by digital platforms. This data, such as best-selling products, peak sales times, or most frequent delivery areas, is invaluable for strategic decision-making. For example, if data shows that a particular product is particularly popular during lunchtime, MSMEs can allocate more resources to producing that product at the right time. Sari (2022) in her research found that MSMEs with good digital literacy can increase their turnover by up to 35%, which directly supports this finding.

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Furthermore, digital literacy also encompasses an understanding of online security. With the increasing number of digital transactions, the risk of fraud or data breaches also increases. MSMEs with good digital literacy will be more aware of these threats and take steps to protect their customer data and business information. The ability to read market trends and adapt quickly to changing consumer needs, as mentioned in the context, is a concrete manifestation of strong digital literacy. This allows MSMEs to remain relevant and competitive in a dynamic market.

Dampak Inovasi Pemasaran Terhadap Kinerja UMKM Kuliner: Daya Tarik di The results of the study indicate that marketing innovation has a positive and most significant influence on the performance of culinary MSMEs in Makassar, with the highest path coefficient of 0.40 and a p-value of 0.000. This confirms that creative and adaptive marketing strategies in the digital era are the main drivers of success. Amidst a sea of culinary MSMEs, marketing innovation is key to distinguishing themselves and attracting customer attention. Rahman (2023) noted that MSMEs that use social media to promote their products experience a significant increase in sales, which is very relevant to this finding.

Marketing innovation here does not only mean advertising, but more about how MSMEs create value and engagement with customers through interesting content. For example, many MSMEs in Makassar have started to utilize social media to:

1. Visual Content-Based Marketing: Uploading high-quality photos and videos of their products, the manufacturing process, or behind-the-scenes footage. Engaging visual content can pique the appetite and curiosity of potential customers. Prasetyo (2021) emphasized that content-based marketing can increase customer loyalty because engaging content not only sells products but also builds emotional connections.
2. Storytelling: Sharing stories behind recipes, the origins of raw materials, or their business journey. This creates a personal connection with customers and builds a strong brand identity.
3. Active Interaction: Responding to customer comments, questions, and reviews on social media. Holding Q&A sessions or online contests can also increase engagement and build a loyal customer community. Nugroho (2021) in his research on social media use by culinary MSMEs also highlighted the importance of this interaction.
4. Leveraging Social Media Trends: Following trends on platforms like TikTok or Instagram Reels to create relevant and viral content, reaching a younger and wider audience. Kurniawan (2023) discusses digital marketing trends in the culinary sector, which includes the use of dynamic short video formats.

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This marketing innovation enables culinary MSMEs to not only reach new customers but also retain existing ones through sustained engagement and positive brand experiences. This demonstrates that creativity in promotions is as important as product quality in a competitive market.

Interconnection and Holistic Implications: Synergy for MSME Sustainability

It's important to emphasize that these three factors—the digital economy, digital literacy, and marketing innovation—do not operate in isolation, but rather interact and reinforce each other. They form a synergistic ecosystem for the growth of culinary MSMEs in the digital era.

1. The digital economy provides platforms and channels. Without these platforms, MSMEs' market reach will be limited.
2. Digital literacy is the ability to effectively use and optimize these platforms. Without adequate literacy, MSMEs might have a GoFood account but not know how to manage orders, analyze data, or optimize their profiles. Setiawan (2020) discusses the obstacles MSMEs face in adopting digital technology, which are often related to a lack of literacy.
3. Marketing innovation is a strategy to attract attention and convert potential reach into actual sales within the digital ecosystem. Without marketing innovation, MSMEs might be present on the platform, but their products won't stand out among thousands of competitors. Wibowo (2022) in his book on digital marketing for MSMEs emphasizes the importance of a well-planned marketing strategy.

The holistic implication of these findings for culinary MSMEs in Makassar is that they must adopt an integrated approach. Simply joining digital platforms is not enough; they must also enhance their digital capabilities and actively innovate in how they market their products. The local government and related institutions also have a crucial role in facilitating this synergy through training programs, mentoring, and infrastructure support. Thus, culinary MSMEs in Makassar can maximize opportunities in the digital era, not only to survive but also to grow and contribute more to the local economy.

CONCLUSION

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This study comprehensively shows that the digital economy, digital literacy, and marketing innovation have a positive and significant influence on the performance of culinary Micro, Small, and Medium Enterprises (MSMEs) in Makassar.

1. Digital Economy: The use of digital platforms such as GoFood and GrabFood has significantly increased sales turnover, expanding the market reach of culinary MSMEs beyond physical geographic boundaries. This proves that adopting online sales channels is a necessity in the modern era.
2. Digital Literacy: The ability of MSMEs to effectively use digital technology and understand sales data is a key factor for success. Good digital literacy enables MSMEs to optimize operations, analyze market trends, and make smarter business decisions, ultimately contributing to increased turnover and efficiency.
3. Marketing Innovation: The use of social media and content-based marketing strategies has proven highly effective in attracting new customers and retaining existing ones. Creativity in product promotion through engaging visuals and storytelling can build customer engagement and loyalty, distinguishing MSMEs from competitors.

Collectively, these findings confirm that culinary MSMEs that proactively adapt to digital technology and implement innovative marketing strategies will experience significant improvements in business performance. This is key to sustainability and growth amid increasingly fierce market competition.

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