

Digital Literacy as a Supporting Factor for Business Transformation of Coastal MSMEs in Makassar

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Abstrak

This study aims to analyze the effect of digital literacy on business transformation among coastal **Micro, Small, and Medium Enterprises (MSMEs)** in Makassar City. The rapid development of digital technology has encouraged MSMEs to adapt to digital-based business systems in order to improve competitiveness and business sustainability. However, coastal MSMEs still face various challenges related to technology adoption, digital skills, and limited access to digital infrastructure. Therefore, digital literacy is considered an important factor in supporting business transformation in coastal economic sectors. This research employed a quantitative approach using a descriptive and explanatory research design. Data were collected through questionnaires distributed to 120 coastal MSME actors in Makassar City selected using purposive sampling techniques. The data were analyzed using descriptive statistics, validity and reliability tests, classical assumption tests, simple linear regression analysis, t-tests, and coefficient of determination analysis with the assistance of SPSS software. The findings revealed that digital literacy has a positive and significant effect on business transformation among coastal MSMEs in Makassar City. The regression analysis showed a significance value of 0.000 and an R² value of 45.2%, indicating that digital literacy contributes substantially to improving digital marketing adoption, operational efficiency, innovation capability, customer engagement, and market expansion. This study highlights the importance of strengthening digital literacy to accelerate digital transformation and enhance the competitiveness of coastal MSMEs.

Keywords: Digital literacy, business transformation, coastal MSMEs, digital transformation, Makassar City.

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INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) have a strategic role in supporting Indonesia's economic growth, particularly in coastal regions where local communities depend heavily on fisheries, culinary businesses, marine product processing, tourism, and small-scale trading activities. Coastal MSMEs in Makassar City contribute significantly to employment opportunities and regional income generation. However, the rapid development of digital technology has created new challenges for MSMEs, especially regarding their ability to adapt to digital-based business ecosystems. In the digital era, business sustainability is strongly influenced

by the capability of entrepreneurs to utilize technology effectively in business operations, marketing, communication, and financial management (Amggreni & Muchran, 2023).

Digital literacy has become one of the key determinants of successful business transformation among MSMEs. Digital literacy refers to the ability to access, evaluate, understand, and utilize digital technologies effectively and responsibly in various activities, including business operations. According to Ismah et al. (2020), digital literacy enables MSME actors to improve entrepreneurial competence and increase their readiness to compete in the Industry 4.0 era. In addition, Setyawati et al. (2022) explained that digital literacy positively influences entrepreneurial behavior, innovation capability, and business adaptability among MSME actors.

The acceleration of digital transformation after the COVID-19 pandemic has encouraged MSMEs to adopt digital platforms more intensively. Consumers increasingly rely on online transactions, digital payments, and e-commerce platforms for purchasing products and services. Consequently, MSMEs are required to transform their conventional business models into digital-oriented systems to maintain market competitiveness. Rahwati et al. (2023) stated that digital transformation adoption significantly improves MSME performance through operational efficiency, wider market access, and enhanced customer engagement. Similarly, Rahmajati and Kusuma (2023) emphasized that digitalization contributes to the improvement of business productivity and organizational sustainability among small enterprises.

Digital literacy is also closely associated with the use of digital financial services and financial technology. MSME actors who possess adequate digital skills tend to utilize mobile banking, e-wallets, QRIS, and online financial applications more effectively. Hermawan et al. (2022) found that financial literacy and digital literacy positively affect the intention to use digital financial services among MSMEs. Furthermore, Rizqiya et al. (2022) argued that fintech utilization can improve financial inclusion and facilitate better financial management for small businesses.

In the context of coastal MSMEs, digital transformation remains relatively limited due to infrastructure constraints, low educational backgrounds, and inadequate technological training. Many coastal business actors still rely on traditional marketing systems and face difficulties in accessing broader digital markets. According to Hafidah (2025), coastal MSMEs in Sulawesi Selatan continue to experience challenges in adapting to digital financial systems and online business platforms. This condition reduces their opportunities to expand businesses and compete with urban-based enterprises.

Moreover, social media and e-commerce platforms have become important tools for strengthening MSME competitiveness. Platforms such as Instagram, Facebook, TikTok, and WhatsApp Business provide low-cost marketing opportunities and direct communication channels between businesses and consumers. Kartikasari et al. (2023) explained that the utilization of digital payments and e-commerce platforms positively affects MSME revenue growth and improves

accounting information quality. Similarly, Rahmatullah et al. (2022) found that digital-based entrepreneurial literacy encourages promotional innovation and strengthens market expansion strategies among MSMEs.

Another important aspect of digital transformation is financial inclusion. Digital literacy supports MSMEs in accessing banking services, online financing, and digital investment opportunities. Pandey et al. (2022) highlighted that financial literacy and digital inclusion contribute significantly to sustainable business growth. In line with this finding, Thathsarani and Jianguo (2022) revealed that digital finance adoption strengthens SME performance through improved operational flexibility and customer service efficiency.

In Makassar City, coastal MSMEs possess substantial economic potential due to the city's strategic maritime location and tourism development. Nevertheless, many MSME actors still demonstrate limited understanding of digital business management and online marketing strategies. Nurjannah and Subur (2024) confirmed that digital literacy significantly influences MSME growth and business sustainability in Makassar. This finding indicates that improving digital literacy among coastal entrepreneurs is essential for supporting business transformation and enhancing competitiveness in the digital economy era.

Despite numerous studies discussing digital literacy and MSME performance, research specifically focusing on coastal MSMEs in Makassar City remains limited. Coastal MSMEs have distinctive characteristics because they are strongly connected to marine resources, traditional trading systems, and community-based economic activities. Therefore, investigating digital literacy as a supporting factor for business transformation among coastal MSMEs in Makassar City becomes important to understand how digital capabilities contribute to business resilience, innovation, and long-term sustainability.

Based on these conditions, this study aims to analyze the role of digital literacy as a supporting factor for business transformation among coastal MSMEs in Makassar City. This research is expected to contribute theoretically to the development of digital transformation studies and practically provide recommendations for policymakers, educational institutions, and MSME stakeholders in designing effective digital empowerment programs for coastal business communities.

1. Relationship Between Variables

Digital literacy has become a fundamental factor influencing the success of business transformation among Micro, Small, and Medium Enterprises (MSMEs), particularly in the digital economy era. The relationship between digital literacy and business transformation can be understood through the ability of MSME actors to adopt and utilize digital technologies in operational activities, marketing strategies, communication systems, financial management, and customer engagement. MSMEs with higher levels of digital literacy tend to demonstrate greater adaptability to

technological changes and are more capable of integrating digital platforms into their business processes (Rahwati et al., 2023).

Digital literacy also has a significant relationship with innovation capability. MSME actors who understand digital technologies are more likely to create innovative products, apply digital marketing strategies, and utilize e-commerce platforms effectively. According to Rahmatullah et al. (2022), digital entrepreneurial literacy encourages promotional innovation and strengthens market competitiveness among MSMEs. Similarly, Setyawati et al. (2022) found that digital literacy positively affects entrepreneurial behavior and business adaptability, indicating that digital competence contributes to the sustainability of small businesses in competitive environments.

Furthermore, digital literacy is closely associated with financial inclusion and digital financial adoption. MSME actors who possess adequate digital knowledge are more likely to utilize digital banking systems, QRIS, e-wallets, and financial technology applications to improve transaction efficiency and financial management quality. Hermawan et al. (2022) emphasized that digital literacy significantly influences the intention to adopt digital finance services among MSMEs. In addition, Kartikasari et al. (2023) explained that the use of digital payments and e-commerce platforms positively affects MSME revenue growth and operational effectiveness.

The relationship between digital literacy and business transformation is also strengthened through digital marketing utilization. Social media platforms such as Instagram, TikTok, Facebook, and WhatsApp Business enable MSMEs to expand market access and establish stronger communication with consumers. MSME actors with higher digital literacy tend to optimize online marketing strategies more effectively, resulting in increased customer engagement and sales performance (Nurjannah & Subur, 2024).

In the context of coastal MSMEs, digital literacy becomes increasingly important because coastal entrepreneurs often experience technological limitations, inadequate infrastructure, and lower access to digital training. These conditions influence their ability to transform traditional business systems into digital-based business models. Therefore, strengthening digital literacy among coastal MSMEs can support business resilience, operational efficiency, and market expansion in coastal economic sectors.

2. Research Gap

Although numerous studies have discussed digital literacy and MSME performance, several research gaps remain identified in previous literature.

First, most previous studies focused on urban MSMEs or general business sectors without specifically examining coastal MSMEs. Coastal MSMEs possess unique characteristics because they are strongly dependent on marine resources, fisheries, tourism, and traditional trading systems. Consequently, findings from urban MSME studies may not fully explain the digital transformation conditions experienced by coastal business communities.

Second, previous studies generally examined digital literacy only in relation to MSME performance, financial literacy, or technology adoption separately. Limited studies have comprehensively analyzed digital literacy as a supporting factor for overall business transformation among coastal MSMEs, including aspects of digital marketing, digital finance, innovation capability, and business sustainability simultaneously.

Third, many studies concentrated on financial literacy and fintech adoption, while the broader dimensions of digital literacy—such as digital communication skills, information evaluation, social media utilization, and e-commerce integration—remain underexplored in the context of coastal MSMEs.

Fourth, empirical studies focusing on coastal MSMEs in Makassar City remain limited, despite Makassar being one of Indonesia's major maritime and coastal economic centers. This indicates the need for contextual research that specifically investigates the digital transformation challenges and opportunities faced by coastal MSMEs in Makassar City.

3. Research Novelty

The novelty of this research lies in several important aspects.

Contextual Novelty

This study specifically focuses on coastal MSMEs in Makassar City, which have distinctive socio-economic and geographical characteristics compared to urban MSMEs examined in previous studies. The coastal MSME context provides a new perspective regarding digital transformation challenges in maritime-based economic sectors.

Conceptual Novelty

Unlike previous studies that mainly examined digital literacy in relation to financial literacy or business performance, this research positions digital literacy as a comprehensive supporting factor for business transformation, including digital marketing, digital financial adoption, innovation capability, operational efficiency, and business sustainability.

Integrated Variable Approach

This study integrates several dimensions of digital transformation into a single analytical framework, enabling a more holistic understanding of how digital literacy influences the transformation process among coastal MSMEs.

Practical Novelty

The research is expected to provide practical recommendations for policymakers, educational institutions, and local governments in designing digital empowerment programs specifically targeted toward coastal business communities.

Regional Contribution

This study contributes empirically to the limited literature concerning digital transformation among coastal MSMEs in Eastern Indonesia, particularly in Makassar City, which remains underrepresented in previous academic discussions.

METHODOLOGY

Research Design

This study employed a quantitative research approach using a descriptive and explanatory design. The quantitative approach was chosen because the research aimed to examine the influence of digital literacy on business transformation among coastal Micro, Small, and Medium Enterprises (MSMEs) in Makassar City through measurable and statistical analysis. According to quantitative research principles, data are collected in numerical form and analyzed using statistical techniques to test hypotheses and determine relationships between variables.

The study specifically investigated digital literacy as the independent variable and business transformation as the dependent variable among coastal MSME actors in Makassar City.

Research Location and Time

This research was conducted in the coastal areas of Makassar City, South Sulawesi, Indonesia. The selected locations included several coastal districts where MSME activities are concentrated, particularly businesses operating in fisheries, culinary products, marine processing, tourism services, and small-scale trading sectors. The research was conducted from May to July 2025.

Population and Sample

The population of this study consisted of all coastal MSME actors operating in Makassar City. Since the exact number of coastal MSMEs was relatively large and difficult to identify comprehensively, the sampling process used a non-probability sampling technique, specifically purposive sampling.

The criteria for selecting respondents were as follows:

1. MSME owners or managers operating in coastal areas of Makassar City.
2. Businesses that had been operating for at least one year.
3. MSME actors who had utilized digital technology in business activities, such as social media, e-commerce, digital payments, or online communication platforms.
4. Respondents willing to participate in the research.

The total number of samples used in this study was 120 respondents. The sample size was considered adequate for quantitative analysis and hypothesis testing because it fulfilled the minimum requirement for regression-based statistical analysis.

Research Variables

This study consisted of two main variables:

1. Independent Variable (X): Digital Literacy

Digital literacy refers to the ability of MSME actors to access, understand, evaluate, and utilize digital technologies effectively in business activities.

The indicators of digital literacy included:

1. Ability to use digital devices and applications
2. Social media utilization skills
3. Digital communication capability
4. Information searching and evaluation skills
5. Ability to use digital financial services
6. E-commerce utilization capability

2. Dependent Variable (Y): Business Transformation

Business transformation refers to changes in business processes, marketing systems, operational management, and customer interaction through digital technology adoption.

The indicators of business transformation included:

1. Digital marketing adoption
2. Use of digital payment systems
3. Online customer engagement
4. Operational efficiency improvement
5. Business innovation capability
6. Market expansion through digital platforms
- 7. Data Collection Techniques**

The primary data in this research were collected using a structured questionnaire distributed directly to respondents. The questionnaire used a Likert Scale with five response categories:

1 = Strongly Disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly Agree

The questionnaire items were developed based on indicators derived from previous literature related to digital literacy and business transformation.

In addition to questionnaires, secondary data were collected from journals, books, government reports, and previous studies relevant to MSMEs and digital transformation.

Instrument Testing

Validity Test

The validity test was conducted to determine whether each questionnaire item accurately measured the intended variable. The Pearson Product Moment correlation method was used, where questionnaire items were considered valid if the correlation coefficient (r-count) was greater than the r-table value at a significance level of 0.05.

Reliability Test

The reliability test aimed to measure the consistency of the research instrument using Cronbach's Alpha coefficient. A variable was considered reliable if the Cronbach's Alpha value exceeded 0.70.

Data Analysis Technique

The collected data were analyzed using Statistical Package for the Social Sciences (SPSS).

The stages of data analysis included:

1. Descriptive Statistical Analysis

Descriptive analysis was used to describe respondent characteristics and research variable distributions, including mean scores, percentages, and standard deviations.

2. Classical Assumption Test

Before hypothesis testing, classical assumption tests were conducted, including:

- Normality Test
- Multicollinearity Test
- Heteroscedasticity Test

These tests ensured that the regression model met statistical assumptions.

3. Simple Linear Regression Analysis

Simple linear regression analysis was used to examine the effect of digital literacy on business transformation among coastal MSMEs in Makassar City.

The regression model used was:

$$Y = a + bX + e$$

Where:

- Y = Business Transformation
- a = Constant
- b = Regression Coefficient
- X = Digital Literacy
- e = Error Term

4. Hypothesis Testing

t-Test

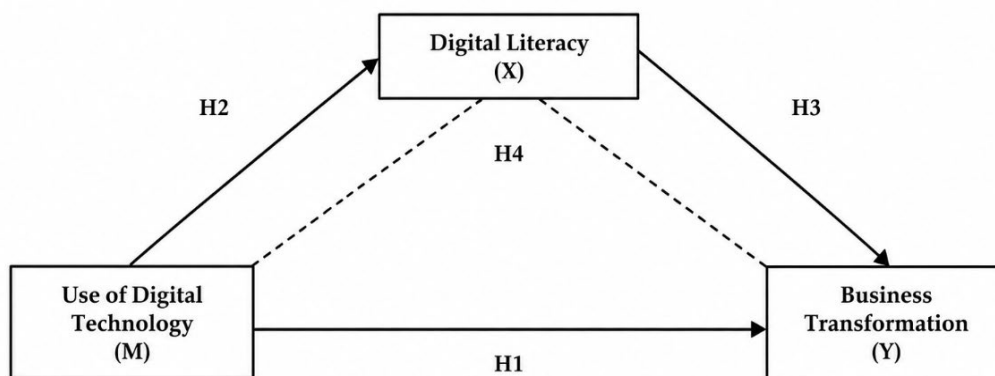
The t-test was conducted to determine whether digital literacy significantly affected business transformation.

Decision criteria:

- If significance value < 0.05 , the hypothesis is accepted.
- If significance value > 0.05 , the hypothesis is rejected.

5. Coefficient of Determination (R^2)

The coefficient of determination analysis aimed to measure the percentage contribution of digital literacy in explaining business transformation among coastal MSMEs.



Keterangan:

- H1 : Use of Digital Technology berpengaruh terhadap Business Transformation
- H2 : Use of Digital Technology berpengaruh terhadap Digital Literacy
- H3 : Digital Literacy berpengaruh terhadap Business Transformation
- H4 : Digital Literacy memediasi hubungan antara Use of Digital Technology dan Business Transformation

RESULTS AND DISCUSSION

4. Respondent Characteristics

This study involved 120 respondents consisting of MSME actors operating in coastal areas of Makassar City. The respondents were categorized based on gender, age, education level, and type of business.

Respondents by Gender

Gender	Frequency	Percentage
Male	68	56.7%
Female	52	43.3%
Total	120	100%

The data indicate that most respondents were male MSME actors, representing 56.7% of the total sample.

Respondents by Age

Age	Frequency	Percentage
20-30 Years	25	20.8%
31-40 Years	48	40.0%
41-50 Years	31	25.8%
> 50 Years	16	13.4%
Total	120	100%

The majority of respondents were between 31-40 years old, indicating that productive-age entrepreneurs dominate coastal MSME activities in Makassar City.

Respondents by Education Level

Education Level	Frequency	Percentage
Elementary School	10	8.3%
Junior High School	18	15.0%
Senior High School	60	50.0%
Diploma/Bachelor Degree	32	26.7%
Total	120	100%

Most respondents had a senior high school educational background.

Descriptive Statistical Analysis

Digital Literacy Variable (X)

Indicator	Mean Score	Category
Ability to Use Digital Devices	4.12	High
Social Media Utilization	4.25	High

Digital Communication Skills	4.05	High
Information Searching Ability	3.98	High
Digital Financial Service Utilization	4.18	High
E-commerce Utilization	3.95	High
Average Mean	4.09	High

The results indicate that coastal MSME actors in Makassar City generally possess a relatively high level of digital literacy.

Business Transformation Variable (Y)

Indicator	Mean Score	Category
Digital Marketing Adoption	4.20	High
Digital Payment Utilization	4.15	High
Online Customer Engagement	4.01	High
Operational Efficiency	3.96	High
Business Innovation Capability	4.08	High
Market Expansion	4.11	High
Average Mean	4.08	High

The findings show that business transformation among coastal MSMEs has been implemented relatively well through digital technology adoption.

Validity Test

The validity test results showed that all questionnaire items had correlation coefficients (r-count) greater than the r-table value of 0.179 at a significance level of 0.05. Therefore, all research instrument items were declared valid.

Reliability Test

Variable	Cronbach's Alpha	Criteria
Digital Literacy	0.891	Reliable
Business Transformation	0.876	Reliable

The Cronbach's Alpha values for all variables exceeded 0.70, indicating that the research instruments were reliable.

Classical Assumption Test

Normality Test

The Kolmogorov-Smirnov test showed a significance value of 0.200, which was greater than 0.05. Therefore, the data were normally distributed.

Heteroscedasticity Test

The scatterplot analysis indicated that the residual points were distributed randomly without forming a specific pattern, meaning that heteroscedasticity was not detected.

Hypothesis Testing (t-Test)

The t-test result showed that digital literacy had a t-value of 9.864 with a significance value of 0.000, which was smaller than 0.05.

Therefore, the hypothesis stating that digital literacy has a positive and significant effect on business transformation among coastal MSMEs in Makassar City was accepted.

Coefficient of Determination (R²)

Model	R	R Square
Regression Model	0.672	0.452

The coefficient of determination (R²) value of 0.452 indicates that digital literacy contributed 45.2% to business transformation among coastal MSMEs in Makassar City, while the remaining 54.8% was influenced by other variables not examined in this study.

The findings of this study demonstrate that digital literacy has a positive and significant effect on business transformation among coastal MSMEs in Makassar City. The statistical results showed that digital literacy contributed substantially to improving business transformation, with a coefficient of determination (R²) value of 45.2%. This finding indicates that the ability of MSME actors to understand and utilize digital technology plays an important role in supporting operational efficiency, market expansion, customer engagement, and business innovation in coastal economic sectors.

The high level of digital literacy among respondents reflects the increasing awareness of coastal MSME actors regarding the importance of digital technology in maintaining business sustainability. MSME actors who possess adequate digital competence tend to adopt digital platforms such as social media, e-commerce, online communication systems, and digital payment applications more effectively. This condition supports the argument that digital transformation in MSMEs cannot be separated from the digital capability of business actors themselves.

The findings revealed that social media utilization became one of the strongest indicators of digital literacy among coastal MSMEs. Many respondents actively used WhatsApp Business, Facebook, Instagram, and TikTok to promote products and communicate directly with consumers. The use of digital platforms enabled MSMEs to reduce conventional marketing costs while simultaneously expanding their market reach beyond local coastal communities. This result indicates that digital marketing has become an effective strategy for strengthening MSME competitiveness in the digital economy era.

The results of this study are consistent with the findings of Rahmatullah et al. (2022), who stated that digital entrepreneurial literacy positively influences promotional innovation and business competitiveness among MSMEs. Similarly, Rahwati et al. (2023) explained that digital transformation adoption improves MSME operational efficiency and customer engagement. The present study confirms these findings within the specific context of coastal MSMEs in Makassar City.

Furthermore, digital literacy significantly supported the adoption of digital payment systems among respondents. Coastal MSME actors who possessed better digital understanding were more likely to utilize QRIS, mobile banking, e-wallets, and online transaction systems. The adoption of digital payments simplified transaction processes, increased financial transparency, and improved customer convenience. These findings support Kartikasari et al. (2023), who found that digital payments and e-commerce utilization positively affect MSME revenue growth and accounting information quality. Another important finding of this study is that digital literacy contributed to business innovation capability among coastal MSMEs. MSME actors with better digital competence demonstrated greater ability to create new promotional strategies, diversify products, and adapt to changing consumer behavior. In the digital economy era, innovation has become essential for maintaining business sustainability and competitiveness. This finding aligns with Setyawati et al. (2022), who argued that digital literacy positively affects entrepreneurial behavior and innovation capability among MSMEs.

The study also found that digital literacy encouraged broader market expansion for coastal MSMEs. Before utilizing digital technology, many respondents relied primarily on local traditional markets. However, after adopting social media and online marketing platforms, MSMEs were able to reach consumers from outside Makassar City. This condition indicates that digital transformation helps overcome geographical limitations commonly experienced by coastal businesses. Although the findings generally showed positive results, several respondents still experienced challenges related to digital transformation. Limited internet infrastructure, inadequate digital training, age differences, and educational background disparities remained obstacles for some MSME actors in utilizing technology optimally. Older business owners tended to experience greater difficulties in adapting to digital applications compared to younger entrepreneurs. This finding suggests that digital literacy programs should be designed according to the characteristics and capacities of coastal business communities.

Compared to previous studies, this research presents several important differences and contributions. First, previous studies generally focused on urban MSMEs or broader business sectors, while this research specifically examined coastal MSMEs in Makassar City. Coastal MSMEs possess unique characteristics because their business activities are closely associated with marine resources, fisheries, culinary products, tourism services, and traditional market systems. Therefore, this study provides a more contextual understanding of digital transformation in maritime-based economic sectors.

Second, many previous studies primarily investigated digital literacy in relation to financial literacy, fintech adoption, or MSME performance separately. For example, Hermawan et al. (2022) focused on digital finance adoption, while Rizqiya et al. (2022) emphasized fintech utilization in improving financial literacy. In contrast, this study examined digital literacy more comprehensively as a supporting factor for overall business transformation, including digital marketing, innovation capability, operational efficiency, online customer engagement, and market expansion simultaneously. Third, this study specifically investigated the role of digital literacy in supporting business transformation among coastal MSMEs after the acceleration of digitalization during the post-pandemic period. Previous studies rarely explored how coastal MSMEs adapt to rapid technological changes in the context of post-pandemic economic recovery.

Fourth, the present research contributes empirically to the limited literature concerning digital transformation among coastal MSMEs in Eastern Indonesia, particularly Makassar City. Most previous studies concentrated on urban regions in Java and large metropolitan areas, leaving coastal business communities underrepresented in academic discussions. The novelty of this study also lies in the integration of digital literacy dimensions with practical business transformation indicators. This study not only measured the ability to use technology but also analyzed how digital literacy influences real business transformation processes such as operational efficiency, online promotion, digital financial adoption, customer interaction, and business innovation.

From a practical perspective, the findings imply that strengthening digital literacy among coastal MSMEs should become a strategic priority for local governments, educational institutions, and stakeholders. Digital empowerment programs, training workshops, and technology assistance should be continuously implemented to improve the digital capabilities of coastal entrepreneurs. In addition, improving internet infrastructure and expanding access to digital financial services are essential to accelerate digital transformation among coastal business communities. Overall, this study confirms that digital literacy plays a crucial role in supporting business transformation among coastal MSMEs in Makassar City. The stronger the digital competence possessed by MSME actors, the greater their ability to adapt to technological changes, improve business performance, and sustain competitiveness in the digital economy era.

CONCLUSION

Based on the results of this study, it can be concluded that digital literacy has a positive and significant effect on business transformation among coastal Micro, Small, and Medium Enterprises (MSMEs) in Makassar City. The findings indicate that MSME actors who possess higher levels of digital literacy are more capable of utilizing digital technologies effectively in business activities, including digital marketing, online communication, digital payment systems, customer engagement, and operational management. The descriptive analysis showed that the level of

digital literacy among coastal MSME actors in Makassar City was categorized as high. Most respondents had already utilized social media platforms, e-commerce applications, and digital financial services to support their business operations. Similarly, the level of business transformation was also categorized as high, indicating that coastal MSMEs have gradually adapted to digital-based business systems.

The regression analysis demonstrated that digital literacy significantly influences business transformation, as indicated by the significance value of 0.000, which was lower than 0.05. Furthermore, the coefficient of determination (R^2) value of 45.2% indicates that digital literacy contributes substantially to business transformation among coastal MSMEs, while the remaining percentage is influenced by other variables outside this study. This study also confirms that digital literacy supports business innovation, market expansion, operational efficiency, and the adoption of digital payment systems among coastal MSMEs. MSME actors who are digitally literate tend to adapt more quickly to technological changes and demonstrate stronger competitiveness in the digital economy era. Compared to previous studies, this research provides a more specific contribution by focusing on coastal MSMEs in Makassar City, which possess unique characteristics related to maritime economic activities and traditional business systems. This study also expands previous research by examining digital literacy comprehensively as a supporting factor for overall business transformation rather than focusing only on financial literacy or fintech adoption. Therefore, improving digital literacy among coastal MSME actors is essential for accelerating digital transformation and strengthening business sustainability. Support from local governments, educational institutions, and related stakeholders is necessary through digital training programs, technology assistance, and infrastructure development to enhance the digital capabilities of coastal business communities in Makassar City.

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