

## DIGITAL MARKETING DEVELOPMENT MODEL THROUGH DIGITAL LITERACY MEDIATION TO IMPROVE SME'S PERFORMANCE

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### Abstract

The objective of this research is to undertake the digital literacy competence among the SME (Small and Medium Enterprises) actors and to answer the previous research evidence that digital literacy is still under study; therefore, digital literacy among the SMEs a cluster of MSME, natural dyes Batik Kebon Indah Bayat Klaten is used as location of this research. Method of the study was carried out by census to all members of cluster batik natural dyes in Bayat Kebon Indah Klaten. All 186 batik members were withdrawn as respondent of this study, the reason for withdrawing all cooperative member of Kebon Indah because they were engaged in digital marketing activities to promote their natural dyes batik products. The engagement in social media to promote their products was vulnerable to digital illiteracy exposures. Digital literacy is a mediating variable bridging the gap between digital marketing capability and SME business performance. The findings reveal that digital marketing capability has a significant impact on SME business performance, digital literacy has a considerable effect on SME's business performance, and digital literacy significantly impacts digital marketing capability. Implication of the study found out that digital literacy prevented the respondents to believe in hoax, several deceiver's efforts of business deceptions, therefore digital literacy strengthened them to be cautious in managing their business.

**Keywords:** Digital Marketing Capability; Digital Literacy; SME's Business Performance; Natural Batik Dyes

**JEL Classification:** G11, G41, G53

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### INTRODUCTION

In a speech at the G-20 Summit (Setpres, 2021), the President of the Republic of Indonesia said that Indonesia has more than 65 million MSME units that contribute to 61 percent of the national economy. At the same time, 64 percent of

Indonesian MSME actors are women, so for Indonesia, empowering MSMEs also means empowering women. MSMEs have also shown relatively high resilience during a pandemic. Digitization is a key enabler. E-commerce is one of the drivers of the Indonesian economy during the

pandemic, with a value that will reach USD 24.8 billion this year. "During the pandemic, 8.4 million Indonesian MSMEs have entered the digital ecosystem, including 54 percent of female MSMEs. Although during the Covid-19 pandemic, the performance of MSMEs in Indonesia decreased by 30%, experiencing a decline and business difficulties.

Research conducted on 260 MSMEs in Indonesia in 2021 by KIC (2021) revealed that around 82.9% of MSMEs in Indonesia were affected by the pandemic. Still, uniquely 5.9% experienced a positive impact during the pandemic, and 14.1% were in good condition; this happens because the MSMEs have used digital technology in business. However, SME actors need help with the use of digital technology. Those who have not used digital technology, namely (1) the absence of digital literacy for MSME actors in Indonesia and (2) digital data security, are very weak, making them vulnerable to manipulation by online criminals. The cooperative of SMEs reinforced that 34% of consumers and MSME customers in Indonesia are also still limited in their digital literacy. Omiunu (2019) conducted research in Nigeria among 240 SMEs that women as business actors, his study used IT (information technology) as an antecedent variable and moderated by e-literacy or digital literacy, his finding proved that e-literacy or digital literacy has significant and positive result on SMEs business performance. Arifuddin et al., (2022) supported the previous study that digital literacy and digital culture has significant influence on SMEs business performance. The authors used to have digital culture on their research. Ranatunga et al., (2020) investigated 110 small business owners in Sri Lanka whether digital literacy on business uncertainty, the result was digital literacy minimizing the business uncertainty and simultaneously digital literacy has significant and positive impact on small business economic performance.

Castaneda et al., (2019) investigated cross countries comparison whether the digital marketing effectiveness affect digital literacy. They found out that information played role to the capability of digital literacy, the higher the digital marketing effectiveness the higher the digital literacy among the respondents across countries in Europe (Germany, Spain and UK). The study of Daud et al., (2022) supported Castaneda et al., (2019) that the role of information technology and digital marketing needed SMEs entrepreneurs to improve digital literacy. The study that took place in Banten Indonesia investigated whether digital marketing, digital finance, and digital payment have impact on Micro, Small, Medium Enterprises (MSME) business performance. The result was significant either in business performance or financial performance.

Researchers agree that in business development and achieving MSME business performance from various countries studied, it is indispensable to use digital business and digital marketing strategies; this is expressed by Trinugroho et al. (2022), Krishen et al. (2021), Faruk et al., (2021) and Irfan et al., (2022). However, in contrast to developed countries, developing countries such as Indonesia still experience many obstacles to digital literacy for MSME actors and consumers. The impact of digital marketing capabilities on SMEs business performance have been studied by (Berg et al.,2020; Jianjun et al., 2021; Nusceir and Refae., 2022). The researchers revealed that SMEs are able to expand their business by using the digital technology in form of social media for business, e-commerce, websites, the use of financial technology to cater new consumers and maintaining the existing customers. The use of digital technology tends to reduce the marketing activities costs and reaching the wider customer including foreign customer as long as the information can be provided bi-lingual either in local language and English. In

contrast, Gaur et al., (2019) revealed on his study that improper use of digital technology may worsen the business performance of SMEs. His study finds out that there is no influence in employing the use of digital marketing capability and SMEs business performance.

Research by Verhoef & Bijmolt (2019) reveals that digital business and marketing mediated by funds or intervened with digital literacy variables still need to be researched or better developed, especially in developing countries such as Indonesia (Figure 1). Therefore, the researcher proposes a digital marketing model with digital literacy intervention as a driver for developing MSME business performance in Indonesia. The novelty of this research aims to build a digital marketing model with digital literacy intervention to improve the performance of MSMEs in Central Java.

## LITERATURE REVIEW

### Digital Marketing Model

In various strategic management literature, it is said that the business world, in this case, is that companies can achieve competitive advantage through a business and marketing model. A business and marketing model describes how a company creates and delivers value to consumers, ultimately making a profit for the business world (Verhoef & Bijmolt, 2019). Another understanding is a system with an inter-dependent structure, activities, and how the company provides to its customers. The development of digital technology changes the way it serves the market to create customer value for stakeholders, and this is categorized as a business model and digital marketing (Martín-Peña et al., 2018). Digital marketing capability has significant effect on SME's business performance. It can reduce the cost of marketing activities including to boost the brand equity of products. The proliferation of cellular phones help spread the use of digital marketing capabilities (Berg et al., 2020; Jianjun et al., 2021; Nusceir and Refae.,

2022). However, Digital marketing capability has no influence on SME's business performance without any effective appropriate promotion and advertisement whether to entice new customers even to maintain the existing customers and it will be the worse impact on business performance (Gaur, 2019). Therefore, the previous studies strengthen this study that there is inconsistency in research findings concerning digital marketing capabilities and SME's business performance. Apasrawirote and Yawised (2022) support the previous studies that digital marketing capabilities has significant impact on SMEs business performance, the author proposed the mediation of RBV (resource based view) to bridge the gap between digital marketing capability and SMEs business performance.

The use of digital literacy as mediation between digital marketing capabilities and SMEs business performance in developing countries so far is still under research, the use of digital literacy as mediation variable between digital marketing capabilities and SMEs business performance so far limited on digital financial literacy. Digital literacy is much broader than digital financial literacy. It encompasses digital marketing literacy, digital financial literacy, digital human resources literacy, digital social literacy. Bongomin et al., (2017); Kumar et al., (2022). Those authors agree that digital marketing capabilities has significant impact on SMEs business performance.

The digital marketing model derives from the digital business model (Verhoef & Bijmolt, 2019), which relies on e-tailing (electronic tailing) retailing held online with the Internet for retail purposes. Those who carry out retail or e-tailing activities are called e-retailers. The e-tailing business is a B2C (business-to-customer) type of business. These online transactions occur between companies and individual consumers, online platforms, and the Digitization of various services online. The digital business model is transformed through a digital marketing model because

marketing is the spearhead of a business. Digital transformation is carried out at the company's strategic level, resulting in consequences for marketing strategy (branding, distribution strategy, channeling), pricing, service, and relationship marketing.

The fourth industrial revolution is dominated by big data, digital capabilities, marketing experience & engagement capabilities, and online networking capabilities. Digital transformation fosters business competition, market globalization, sales, profit, digital consumer behavior, and hostile behavior such as copyright piracy. This marketing model will have an impact on company performance, including company metrics, customer value, profit (Return on Investment), company sales level, company business sustainability, and brand & customer metrics, including consumer equity, brand equity, and value, relationship equity, digital equity, return (profit) and so on.

Ritter and Pedersen (2020) revealed that Digitization refers to using digital technology and data to increase business and revenue and create a digital culture. In practice, digital data is used as the primary support for the entire process. If it has been at the digitization stage, the company can change its business processes to be more efficient, productive, and profitable. An example of the practice is uploading data or information to the cloud and sharing it with colleagues to be accessed and viewed simultaneously, then analyzed for business purposes. In contrast, Digitization is the process of converting something non-digital into digital. In addition, the authors found out that digital literacy and Digitization increased the company's performance. Kumar et al. (2022) supported the previous study by finding out that digital financial literacy significantly impacts a company's business performance, especially in India during the Covid-19 pandemic. Shah and Murthi (2021) have strengthened the previous studies that digital literacy in the

application of data-driven marketing facilitated the development of a company's performance. Furthermore, Cortez and Hidalgo (2022) contended that segmentation and targeting capability as an antecedent of marketing capability convergence coupled with digital literacy had increased company performance's profitability. Their research has been conducted in US, Chile, and Denmark.

### **Digital Literacy**

Digital literacy has various definitions, including human interaction with the Internet (Irfan et al., 2022) and digital education platforms (Sugiyantari, 2020). UNESCO, in the SDGs (Sustainable Development Goals), defines digital literacy as a skill or expertise related to the following aspects, for instance, functional skills, creative literacy, information skills, thinking critically and proficient in evaluating communication skills, ability to collaborate, e-safety or digital security capabilities, and ability to solve problems through digital technology.

The research findings of (Irfan et al., 2022) prove that digital literacy significantly supports an increase in investment in society in Pakistan. Likewise, the research of Kass-Hanna et al. (2022) supports this study which found that the digital literacy of low-income people strongly promotes financial inclusion and financial resilience in South Asia and North Africa.

Digital media literacy among women in Indonesia is still relatively low, especially in rural areas. The female research respondents revealed that internet use was limited to social media and not yet used for business purposes. Still, the respondents admitted that using ICT would increase their self-esteem, gain respect from friends, and improve decision making related to social media. The interests of families and children (Suwana & Lily, 2017).

So far, only some studies link digital literacy in Indonesia, especially among female entrepreneurs. However, Aryanto &

Wismantoro (2020) revealed that digital literacy through social media among entrepreneurs in the natural dye batik cluster in Bayat Klaten, Central Java, improved performance significantly. With these entrepreneurs' efforts, they can penetrate foreign markets on a limited basis, for example, in Japan, the US, and Italy. In addition, using social media such as Facebook for business can boost sales of naturally dyed batik products nationally and internationally.

The research above is also supported by Trinugroho et al., (2022), which reveals that by using big data, MSMEs in Indonesia number of around 2,200 companies in the young entrepreneur group is relatively more adaptive in adopting digital technology compared to the older group who tend to be challenging to accept. However, embracing digital technology causes their business performance to be hit by the covid-19 pandemic. Therefore, efforts to increase digital literacy need to use a strategy based on the age of the entrepreneur.

### **Digital Marketing Capability and Digital Literacy**

Digital media literacy among women in Indonesia is still relatively low, especially in rural areas. The female research respondents revealed that internet use to social media and not yet used for business purposes, but the respondents admitted that ICT would increase their self-esteem, gain respect from friends, and improve decision-making related to social media. The interests of families and children (Suwana & Lily, 2017). This research is also supported by Tolstoy et al. (2022); Lee et al. (2020); digital literacy and online information literacy boost people's trust in digital marketing, whether in private or public websites that accommodate digital marketing.

There are still very few studies in Indonesia that link digital literacy, especially to female entrepreneurs. However, Aryanto & Wismantoro, (2020) revealed

that digital literacy through social media among entrepreneurs in the natural dye batik cluster in Bayat Klaten, Central Java, could significantly improve performance. The efforts of these entrepreneurs can enter international markets on a partial basis, for example, in Japan, the US, and Italy. The use of social media such as Facebook for business can boost sales of naturally dyed batik products both nationally and internationally. Based on the previous research, a hypothesis can be set off as follows:

H1. Digital marketing capability has a positive impact on digital literacy.

### **Digital Marketing Capability and SMEs' Business Performance**

Tolstoy et al. (2022) find that digital marketing acts as leverage to increase the performance of SMEs. However, the evidence mentions that digital marketing or online marketing per se is not the primary trigger to boost the performance of SMEs; there is a variable, namely organization ambidexterity, that will be signing an aspect to increase the performance of SMEs.

The digital business model is transformed through a digital marketing model because marketing is the spearhead of a business. Digital transformation is carried out at the company's strategic level, which results in marketing strategy consequences, branding strategy, distribution strategy (channeling), pricing strategy, service, and relationship marketing strategy. The development of digital technology changes the way it serves the market to create customer value for stakeholders, and this is categorized as a business model and digital marketing (Martín-Peña et al., 2018). Digital marketing capability and digital literacy.

H2. Digital marketing capability has a positive impact on Business Performance.

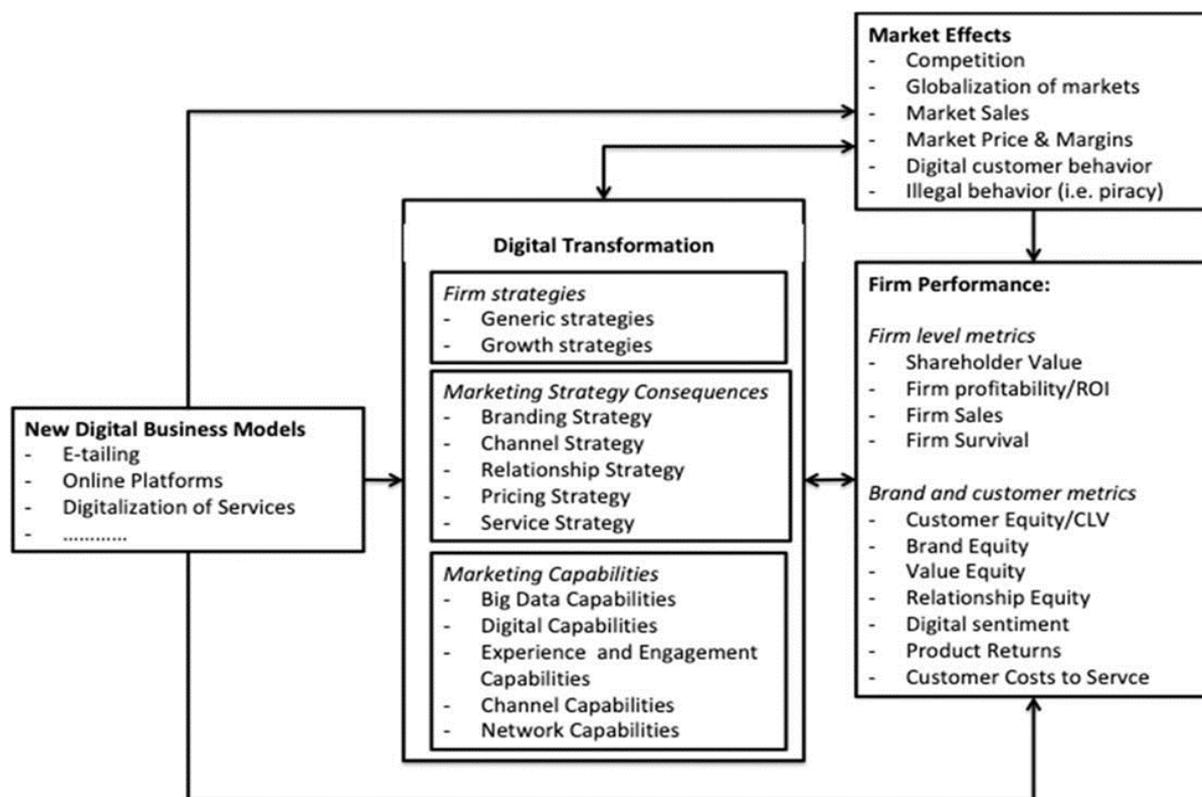
### Digital Literacy and SMEs' Business Performance

There are still very few studies in Indonesia that link digital literacy, especially to female entrepreneurs. However, Aryanto & Wismantoro (2020) revealed that digital literacy through social media among entrepreneurs in the natural dye batik cluster in Bayat Klaten, Central Java, could significantly improve performance. The efforts of these entrepreneurs can even penetrate foreign markets on a limited basis, for example, in Japan, the US, and Italy. Using social media such as Facebook for business can boost sales of naturally dyed batik products nationally and internationally. The research findings of Irfan et al. (2022) prove that digital literacy significantly supports an increase in investment in society in

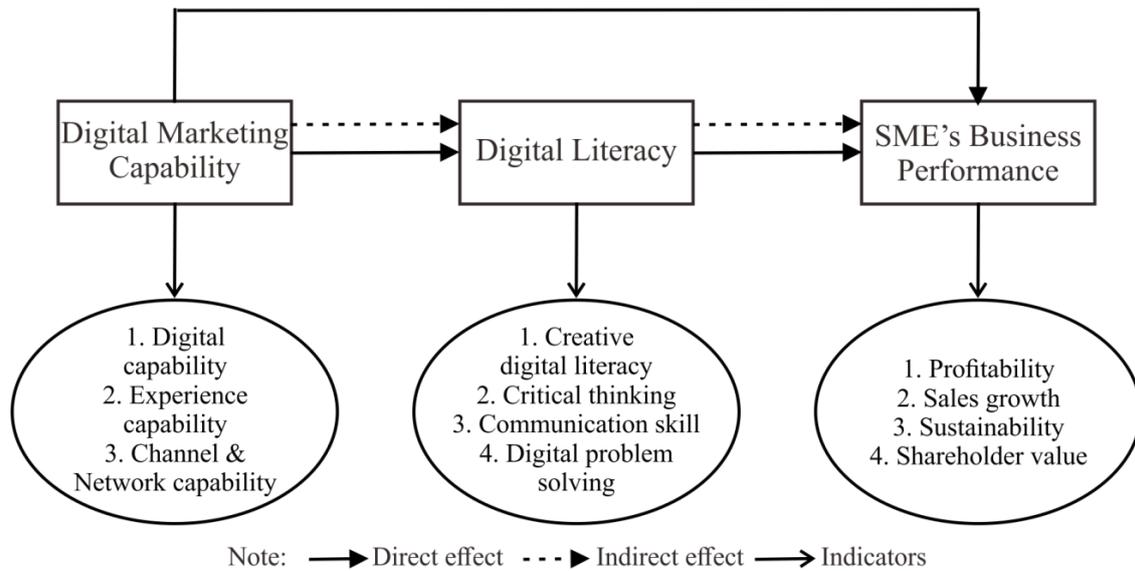
Pakistan. The research of Kass-Hanna et al. (2022) supports this study which found that digital literacy of low-income people strongly promotes financial inclusion and financial resilience in South Asia and North Africa. Luo et al. (2021) found that digital financial literacy positively impacts SMEs' business performance, particularly in micro-level firms in rural China. Based on the previous research, we set off the hypothesis as follows:

H3. Digital literacy has a significant impact on SME's business performance.

Empirical model in this study can be described in [Figure 2](#).



**Figure 1.** Model of Digital Marketing  
Source: Verhoef & Bijmolt, (2019)



**Figure 2.** Digital Marketing Model with Digital Literacy Intervention

**RESEARCH METHOD**

**Sample**

We undertook this research in Bayat Klaten Central Java, where a cluster of Batik natural dyes from September 2021 to November 2021 during the severe outbreak of Covid-19. Therefore, the study undertook the research mainly by conducting in-depth interviews, online group discussions, and Google form questionnaire distribution. Our research withdrew all 186 businesswomen from the business cluster. The questionnaire success rate factor was 100 percent, the census method was applied, and did data analysis by using (Smart-PLS) version 3.2.8.

**Measures**

The indicators of digital marketing capability comprise digital capability, experience capability, and Channel and network capability. The indicator of digital literacy includes creative digital literacy, critical thinking, communication skills, and digital problem-solving. Finally, SMEs' business performance comprises profitability, sales growth, sustainability, and shareholder value. Measurement model assessment in this study can be see in [Table 1](#).

**Data Analysis Procedure**

This study analyzed the data using partial least squares structural equation

modeling (PLS-SEM). It is used as an alternative and more commonly used for SEM than covariance-based SEM (CB-SEM) (Hair & Alamer, 2022). The PLS-SEM field has experienced rapid growth over the last decade (Sarstedt et al., 2022). Complex research models can be analyzed using PLS-SEM, a flexible and effective method (Benitez *et al.*, 2020; Hair Jr *et al.*, 2017). The data analysis method with PLS-SEM was carried out in two stages: the evaluation of the measurement model and the assessment of the structural model (Hair *et al.*, 2019). Data processing by utilizing Smart-PLS version 3.2.8 (Ringle *et al.*, 2015).

**RESULT AND DISCUSSION**

**Respondent Profile**

This study was undertaken in April 2022 to August 2022; the respondents were all cluster members of Kebon Indah; during the data collection, 186 respondents were the participant of the research. They were all batik craftswomen in a Batik Kebon Indah cooperative cluster. We conducted census sampling; all the batik craftswomen in a cluster of Batik Kebon Indah cooperatives were withdrawn as respondents. The sample data indicate that in terms of gender, all the respondents were female, and the craftswomen with age bracket 41 to 50 years old were most respondents ([Table 2](#)).

### Convergent Validity

[Table 3](#) shows that convergent validity can be determined using loading factor values. The definition of factor loadings is a value that indicates the relationship among statement item values through a construct indicator that measures the construct. The validity criterion is the factor loading value larger than 0.7.

[Table 4](#) depicts that the value of Cronbach's alpha ( $\alpha$ ), rho A, and composite reliability (CR) values of 0.70 or more, is considered acceptable for internal consistency measures (Hair *et al.*, 2019). Other, the Average Variance Extracted (AVE) for all constructs is larger than 0.50, it has met the minimum standard (Fornell & Larcker, 1981).

Discriminant validity in this study was assessed using the HTMT. [Table 5](#) shows that all correlations between constructs are below the AVE root value. Thus, the discriminant validity of the three constructs can be accepted (Henseler *et al.*, 2015).

We tested the structural model with the results shown in [Figure 3](#). The result of  $R^2$  in [Table 5](#) shows the values are 0.484 and 0.572. Based on the values, it can be classifications moderate (Hair *et al.*, 2019). Furthermore, this study examines all explanatory variables' effect sizes ( $f^2$ ). The  $f^2$  value shows  $0.939 > 0.35$  (significant effect) and  $0.199 > 0.15$  (medium effect, thus indicating sufficient explanatory power on the part of the structural model. We next examined models of fit sizes other than  $R^2$  and  $F^2$ . Smart-PLS offers match measures, including SRMR and NFI. Standardized Root Mean Square Residual (SRMR) is the difference between the observed correlations and the implied model correlation matrix, and values less than 0.10 or 0.08 are considered appropriate. The Normed Fit Index (NFI) is one of the first fit measures proposed in the SEM literature to be the normed fit index. NFI returns a value between 0 and 1. The closer the NFI is to 1, the better the match. The calculation results, as described in [Table 6](#), all the criteria for

$SRMR=0.069 < 0.08$  so that it has fulfilled the model suitability measure (Benitez *et al.*, 2020; Henseler & Schuberth, 2020), and  $NFI=0.838 > 0.8$  it still met the requirement (Baumgartner & Homburg, 1996).

### Hypotheses Test

We undertake hypotheses tests to assess the inner structural model, which consists of coefficients parameters and T-statistics. The significance values amongst constructs, T-statistics, and P-values need to be considered. The test utilizes Smart-PLS 3.2.8 through Bootstrapping testing. The criteria managed in this research were a T-statistic larger than 1.96, and a significance level of P-value is 0.05 coupled with a positive beta coefficient. The hypothesis testing results are presented in [Table 7](#). For hypothesis 1, the findings show that marketing digital capability impacted digital literacy with a beta coefficient is 0.696, t-statistic is  $15.548 > 1.96$ , and P-value is  $0.000 < 0.05$ . Therefore, H1 was supported.

Furthermore, the findings show that digital marketing capability positively and significantly impacted business performance with a beta coefficient = 0.414, t-statistic= $4.274 > 1.96$ , and  $p=0.000 < 0.05$ . This finding resulted indicated that H2 was supported. Finally, for hypothesis 3 testing, the findings show that digital literacy positively impacted business performance with a beta coefficient= $0.407$ , t-statistic= $3.784 > 1.96$ , and P-value  $0.000 < 0.05$ . Therefore, it supported H3.

The results of the indirect effect calculation in [Table 8](#) show that the p-value of  $DMC \rightarrow DL \rightarrow BP$  is  $0.000 < 0.05$ , which is statistically significant. Based on the previous test, the direct effect of  $DMC \rightarrow BP$  is also significant with a p-value of  $0.000 < 0.05$ , so the proven mediation is partial. This finding indicates that SME entrepreneurs with digital marketing capability are better at obtaining digital literacy, and the impact will have high business performance.

**Table 1.** Measurement Model Assessment

Variable	Indicators	Description
Digital Marketing Capability	Digital capability	The digital capability of SMEs
	Experience capability	The experience of SMEs actors
	Channel and network capability	The network capability of SMEs
Digital Literacy	Creative Digital Literacy	The digital creativeness of SMEs actors
	Critical thinking	The critical thinking of SMEs actors
	Communication skills	Communication skills of SMEs actors.
	Digital problem-solving	Digital problem solving by SMEs actors
Business Performance	Profitability	The profitability of SMEs business
	Sales growth	The sales growth of SMEs business.
	Sustainability	The sustainability of SMEs business
	Shareholder value	The shareholder value of SMEs

Source: adopted from Verhoef & Bijmolt, (2019)

**Table 2.** Sample Analysis

Item	Classification	Number of People	Percentage
Gender	Female	186	100
Age	18-30	6	3.04
	31-40	79	42.4
	41-50	81	43.5
	51-60	20	10.7
Origin	Within the cluster	186	100

**Table 3.** Measurement Model Assessment

Variable	Indicators	Notation	Loadings
Digital Marketing Capability	Digital capability	DC	0.844
	Experience capability	EC	0.809
	Channel and network capability	CNC	0.733
Digital Literacy	Creative Digital Literacy	CDL	0.859
	Critical thinking	CT	0.807
	Communication skills	CS	0.800
	Digital problem-solving	DPS	0.808
Business Performance	Profitability	P	0.870
	Sales growth	S	0.859
	Sustainability	SG	0.869
	Shareholder value	SV	0.853

**Table 4.** Variables Reliability Assessment

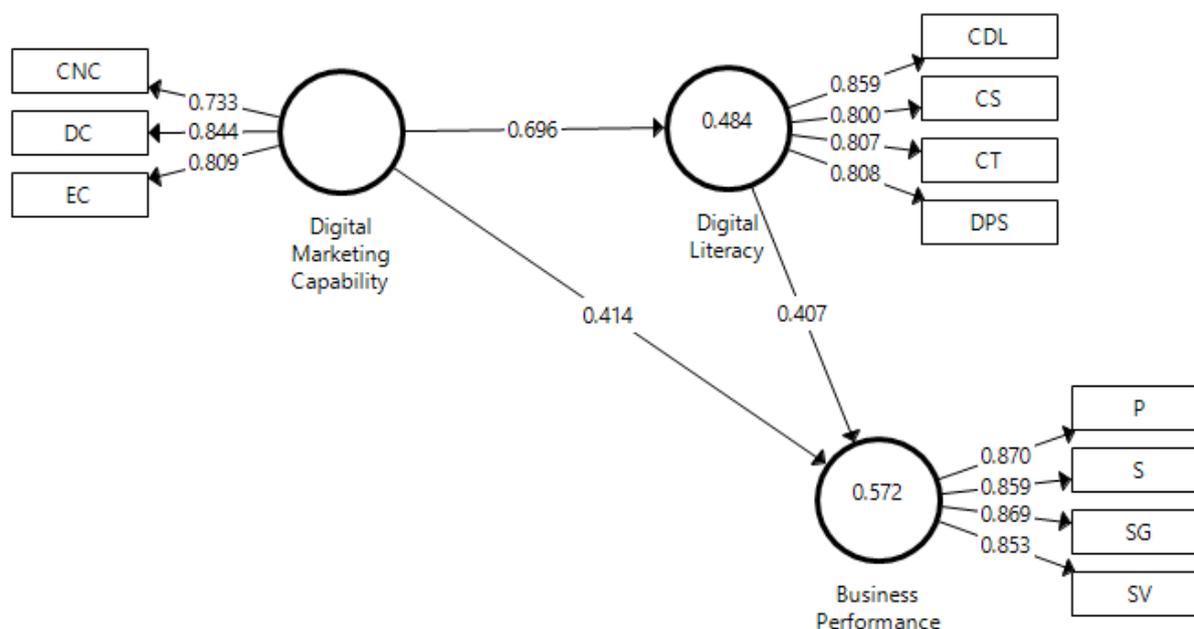
Variables	$\alpha$	rho_A	CR	AVE
Digital Marketing Capability	0.713	0.726	0.839	0.635
Digital Literacy	0.836	0.838	0.891	0.671
Business Performance	0.886	0.887	0.921	0.744

**Notes:**  $\alpha$ = Cronbach's Alpha; CR= Composite Reliability; AVE = Average Variance Extracted

**Table 5.** Discriminant Validity Assessment

Constructs	Mean	SD	DMC	DL	BP
Digital Marketing Capability	6.068	0.636	0.797		
Digital Literacy	5.956	0.682	0.696	0.819	
Business Performance	0.973	0.720	0.697	0.695	0.863

**Notes:** DMC = Digital Marketing Capability; DL = Digital Literacy; BP = Business Performance



**Figure 3.** Structural Model Results

**Table 6.** Model Fit Assessment

Constructs	R <sup>2</sup>	f <sup>2</sup>	SOME	NFI
Digital Marketing Capability	-	0.939	-	-
Digital Literacy	0.484	0.199	-	-
Business Performance	0.572	-	0.069	0.838

**Table 7.** Hypothesis Testing

Direct Effect	$\beta$	T-Statistic	P-Values	Decision
DMC → DL	0.696	15.584	0.000	H1 Supported
DMC → BP	0.414	4.274	0.000	H2 Supported
DL → BP	0.407	3.784	0.000	H3 Supported

**Table 8.** Mediation Testing

Indirect Effect	$\beta$	T-Statistics	P-Values	Decision
DMC $\rightarrow$ DL $\rightarrow$ BP	0.283	3.549	0.000	Partial Mediation

### Discussion

Research results indicate that digital marketing capability moderated by digital literacy improves SMEs' business performance. The effort to practice digital marketing among the cluster of natural dyes batik craft-women has been undertaken by Dian Nuswantoro University and other universities for six years. The Channel and network capability of Batik Kebon Indah SMEs is the relatively lowest loading factor among others; the phenomenon indicates that Channel and network capability is one of business performance's success factors because of lack of experience, particularly in international networks and channels. Therefore, it could be the priority target of improvement soon, also following previous research done by Hollebeek and Macky (2019).

So far, digital literacy has been taught to the cluster members of Batik Kebon Indah. The effort to improve digital literacy has gradually been practiced, initially assisted by some universities through community services programs. The tacit knowledge and explicit knowledge of digital literacy are internalized through creative digital literacy, critical thinking, communication skills, and digital problem-solving. The cooperative members are only committed to gaining information from the Internet if they are scrutinized thoroughly. The first step was how they have critical thinking. Since in some cases, the deceivers tried to deceive the cooperative members in transactions, whether in e-commerce or social media. Some online loans were also offered to the cooperative members with irrational interest fees. Luckily, they were not trapped by online loan sharks. The marketing digital capability boosts the performance of SMEs' businesses; this finding is supported by

previous research done by Tolstoy et al. (2022). Digital literacy improves digital marketing capability because digital business literacy encourages business clusters to have intensive digital business practices. In addition, social media usage promotes their business and engages in e-commerce and financial technology; this finding follows the previous research done by Lee et al. (2020).

Furthermore, digital literacy, including financial literacy, has improved SMEs' business performance in the batik cluster; this finding is in line with previous research done by Aryanto & Wismantoro (2020); Luo et al. (2021). The cluster of SMEs in Kebon Klaten has formed a cooperative (Kebon Indah cooperative). The unique phenomenon is that cooperative shareholder value can increase their portfolio value. The finding follows a previous study by Meiorowitz and Pi (2022) that reveals that shareholder value in cooperatives can vote or sell shares. The voting policy will maximize the cooperative's portfolio value. The predicted patterns of trading and market volatility help reconcile some distorted prices. Our important findings were the proper knowledge of digital literacy among the respondents in Kebon Indah Bayat Klaten saved them from being deceived from loan shark online lending, online phishing some efforts to deceive their business were also can be prevented. The respondents were also knowledgeable to have digital market access that help improving their business.

### CONCLUSION AND RECOMMENDATION

The study concludes that digital literacy could be promoted with a long period of technical assistance and knowledge transfer. Enhancing digital literacy can be undertaken simultaneously by developing

digital marketing capability hand in hand. Digital literacy awareness saves the cooperative or SME member from being lured by online loan sharks on the Internet. The digital marketing capability coupled with digital literacy has boosted the performance of SME businesses. However, this study also has its limitation, such as some universities technically assisting SME members for a long time through community service programs. The following study should involve those treated and untreated through TAB (theory of plan behavior) and TRA (theory of reason action). According to Lok (2015). Revealed in his study that Asian culture and values inevitably influence the technology adoption of digital marketing capabilities and digital literacy. Theory of Plan Behavior (TPB), Theory of Reason Action (TRA) and Technology Acceptance Model (TAM) are compulsory to undertake technology advancement model.

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