# DIGITAL FINANCIAL LITERACY AND FIRM PERFORMANCE: THE ROLE OF DIGITAL PAYMENT

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**Abstract**

Digitalization in business needs to be balanced with good digital financial literacy so that company performance can be measured clearly. Digital financial literacy also plays a role in supporting individuals to understand the use of digital products or applications. This study empirically investigates the relationship between digital financial literacy, digital payments, and company performance; and determine the role of digital payments as a mediator in the influence of digital financial literacy and company performance. The object of this study was obtained from Micro and Small Enterprises in East Java. A sampling technique uses purposive sampling, with sample size is 216 samples. The research data was collected using primary data through a questionnaire. Analysis of research data using SEM-PLS. The results of this study finds that there is a relationship between digital financial literacy, digital payments, and company performance. This study also finds that digital payments are a mediator between digital financial literacy and company performance. These results indicate that SMEs' digital financial literacy level affects increasing company performance through digital payments and company performance.

**Keywords:** Digital Financial Literacy, Digital Payment, Firm Performance, Micro Small Medium Enterprises, Digitalization

## INTRODUCTION

Advances in digital technology have driven inclusive growth resulting in efficiency and improved services during the COVID-19 pandemic (OECD, 2019). Advances in digital technology have also grown more rapidly during the pandemic through an increase in transactions on digital trading platforms by 12% or reaching IDR 30.8 trillion compared to conditions in 2021 (Bank Indonesia, 2022). This transition has indirectly supported the MSME digitization program in Indonesia in order to expand market access and increase MSME competitiveness (Suryowati, 2020). According to Bouncken *et al.* (2021); Eller *et al.* (2020); Matt *et al.* (2015) mentions that MSMEs that start digitizing their business processes by adopting digital technology can change the business value proposition, create business value, and explain the form of business, and can describe the level of digitization. Furthermore, digital technology not only expands the value proposition of the MSME business, but also helps in managing the relationship between MSME actors and customers through their social media (Ainin *et al.*, 2015; Eller *et al.*, 2020). The breadth of the business value proposition and the stronger relationship between MSME actors and customers will indirectly increase MSME

sales and profits, which in turn will have an impact on improving company performance. Previous research also explained that the adoption of digital marketing and the use of social media affect the financial performance of MSMEs (Ainin *et al.*, 2015; Daud *et al.*, 2022) by helping to reduce marketing costs and improve MSME relationships with customers (Ainin *et al.*, 2015). However, increasing company performance cannot be separated from the influence of digital financial literacy. Digitalization in business needs to be balanced with good digital financial literacy so that the firm performance of a company can be measured.

Digital financial literacy is a concept that has emerged as the main driver that includes knowledge, awareness, and abilities, which covers several aspects of financial literacy and digital literacy but also includes specific concepts related to the features and risks of digital financial services (Lyons & Kass-Hanna, 2021; Lyons & Kass-Hanna, 2021). Digital financial literacy in the era of digital technology is an important factor to increase the effectiveness and efficiency of financial management. Not only that, digital financial literacy is the basis and guide for managing digital information in decision-making. Furthermore, digital financial literacy refers to financial literacy that was developed in the context of digital financial technology to adapt to global conditions due to the impact of technological advances.

Several previous studies have been conducted many studies related to the influence of financial literacy on the performance of large companies and SMEs. However, research on the linkage of financial literacy with the context of digital technology (digital financial literacy) on firm performance has only begun to be studied and has become a worldwide concern after the implementation of global digitalization in all industrial sectors around 2017 (E & Swarupa, 2022; Fauzi *et al.*, 2020; OECD., 2017; OECD, 2019). Therefore, this research needs to be conducted to examine the direct effect of financial literacy in the context of digital technology (digital financial literacy) on the firm performance of SMEs.

The application of digitalization globally has impacted the emergence of many software applications through personal digital devices to access financial services and products, thereby providing benefits for daily activities with superior quality and speed (Elhajjar & Ouaida, 2020; Lo Prete, 2022). Software applications that are integrated with global financial services allow users to make online purchases, digital payments, and e-commerce (Elhajjar & Ouaida, 2020). Therefore, this study links digital payment as a mediating variable to the relationship between digital financial literacy and firm performance of MSMEs; where digital payments in this study are the latest in this study.

Digital payment refers to media transactions made through digital technology, where the media provides more convenience, convenience, and speed than the use of traditional technology. Digital payment is also one of the digital financial technology innovations that have many benefits and also provide efficiency in sales (Ozturk *et al.*, 2017; Polasik *et al.*, 2013; Seldal & Nyhus, 2022). Wu & Huang (2022) explained in their research that the application of digital payments has revolutionized transaction methods and simplified the transaction process so that the application of digital payments provides the possibility to make many transactions online and supports real-time. Not only has that, but the existence of digital payments also provided convenience for consumers and business actors. Payment system innovation in an economic

and social environment will indirectly influence changes in consumer behavior patterns in a business. This condition can be seen if a business implements a digital payment that provides the possibility of increasing sales and profits, which in turn will have an impact on increasing company performance. This condition is possible because business actors provide many alternative payment options and fast payment processes, so as to reduce customer queuing time (Polasik *et al.*, 2013). Several previous studies have also stated that digital payments contribute to improving firm performance (Daud *et al.*, 2022; Polasik *et al.*, 2013; Talom & Tengeh, 2020). However, this condition cannot be separated from the role of digital financial literacy in influencing digital payments. The level of digital financial literacy provides convenience in implementing and understanding the system of the digital payment method. Business actors who participate in the digital technology environment are required to have a basic level of digital financial literacy (Lyons & Kass-Hanna, 2021). Individuals who have a good level of financial literacy will indirectly find it easier to understand digital financial products and conduct digital financial transactions (Carlin *et al.*, 2019; Vogels & Anderson, 2019). Therefore, individuals who have a good level of digital financial literacy will understand the risks of using digital financial transactions, so they will be more aware and more careful with the security of digital financial transactions.

This research has two aims there is determine the influence between digital financial literacy, digital payment, and company performance, and to determine the role of digital financial literacy as a mediator in the relationship between digital financial literacy and company performance. The results of this study explain that digital payment acts as a mediator in the relationship between digital financial literacy and company performance. The application of digital payments indirectly explains that the performance of MSMEs can increase because there is effectiveness in their business operations. This study includes five parts, the first contains the introduction, the second part is a literature review and hypothesis development, the third part includes research methods, the fourth part includes the results and discussion, and the fifth part includes the conclusions and limitations of the study.

## HYPOTHESIS DEVELOPMENT

### *Digital Financial Literacy and Firm Performance*

Digital financial literacy is a multidimensional concept that is similar to the concepts of digital literacy and financial literacy (Morgan *et al.*, 2019). Furthermore, digital financial literacy is a combination of two concepts between digital literacy and financial literacy that are applied in the digital financial technology environment (Setiawan *et al.*, 2022; Tony & Desai, 2020). Lyons & Kass-Hanna (2021) also explained that digital financial literacy refers to a concept that emerged as the main driver that includes knowledge, awareness, and abilities, which includes several aspects of financial literacy and digital literacy, but also includes specific concepts related to features and risks from digital financial services (Lyons & Kass-Hanna, 2021). Lyons & Kass-Hanna (2021) also mentioned in their research that the measurement dimension of digital financial literacy is a combination of the dimensions of digital literacy and financial literacy. Indirectly, digital financial literacy can be said to be financial literacy in the

context of digital technology. Digital financial literacy can be regarded as an intangible resource that plays an important role in improving firm performance in the digital era, as well as the role of financial literacy in a conventional context. Digital financial literacy or financial literacy can be said to be a necessary catalyst to facilitate access and use of digital financial products and services, especially in MSMEs (Setiawan *et al.*, 2022). Hussain *et al.* (2018) also said that financial literacy in a modern economy is considered an important skill and resource for SMEs to maintain their survival. An increased organizational knowledge base will enable financial literacy to improve firm performance (Ali & Li, 2021). Several previous studies also explain the importance of financial literacy in improving firm performance (Adomako *et al.*, 2016; Adomako & Danso, 2014; Agyapong & Attram, 2019; Ali & Li, 2021; Darroch, 2005; Ishtiaq *et al.*, 2020; Karadag, 2017; Okello Candiya Bongomin *et al.*, 2017; Tuffour *et al.*, 2020; Wahyono & Hutahayan, 2021). Huston (2010) emphasizes the importance of financial literacy in suppressing failure to make choices in financial decision-making and enabling it to achieve the desired results. The study also explains that financial literacy is closely related to the use of alternative loan products (Huston, 2010), which can have an impact on firm performance. This is because the use of alternative loan products is closely related to the management of business funding. When an individual does not have a good level of financial literacy, it allows companies to obtain loans with high-interest costs. The high-interest costs can affect the addition of the company's operating costs and will affect the company's net profit. In aspects of financial literacy, it has offered many opportunities to produce high-quality finance, if it is evaluated correctly, such as broad knowledge aspects and the ability to estimate and evaluate financial information will create opportunities for companies to choose opportunities that arise efficiently at a cost. Relatively low (Adomako *et al.*, 2016). Therefore, researchers have an argument that financial literacy can improve firm performance, so the hypothesis in this study is:

**H1**: Digital Financial literacy has a significant effect on firm performance

### Digital Financial Literacy, Digital Payment, and Firm Performance

Advances in information and communication technology provide many innovations, especially in financial services. Innovations in financial services have made it easier to process transactions and made it easier to access financial services. One of the innovations in financial services that has increased rapidly in recent years is a variety of digital payment methods. Current digital payment methods use online-connected payment systems (such as PayPal, doku, amazon pay, shoppee pay) or use mobile payment applications. Payment methods through mobile applications are currently better known as digital wallets such as ovo, go pay, fund, flip, link aja, and others. The existence of a digital payment method provides many benefits because it is available directly and efficiently (Ozturk *et al.*, 2017; Polasik *et al.*, 2013). However, the use of digital payments cannot be separated from the level of individual digital financial literacy. Hasler *et al.* (2018) in their research also mention that a high level of financial literacy benefits users of digital services. Financial literacy in the context of supporting business sustainability, financial literacy is an important business capability in overseeing business financial resources and being connected effectively in decision-making related to the

launch of financial products and services (Eniola & Entebang, 2015). Not only that, financial literacy is also a tool to support increased profits, business growth, business development, and financial stability (Tuffour *et al.*, 2020). However, financial literacy in the context of financial services is a benchmark in facilitating the implementation and understanding of the system of the digital payment method. Individuals who are in this technological development environment and participate in the digital economy, need to have a basic level of financial literacy (Lyons & Kass-Hanna, 2021). Not only that, but individuals also need knowledge and skills in operating digital devices, and conducting financial transactions, digitally (Carlin *et al.*, 2019; Vogels & Anderson, 2019). These skills and knowledge will be possessed if the individual has been equipped or already has a good level of financial literacy. Individuals who have a good level of financial literacy will make it easier to learn the payment system. Not only that, with a good level of financial literacy, individuals can protect themselves as consumers operating in the digital market from actions that are financially detrimental. The results of research by Selda & Nyhus (2022) also state that high financial literacy provides convenience in the payment process using digital payment technology, as evidenced by the decrease in the percentage of complaints about difficulties in digital payments. Several previous studies also explain that financial literacy has a relationship with digital payments (Apiors & Suzuki, 2022; Lo Prete, 2022; Matita & Chauma, 2018). Based on this description, the hypotheses in this study are:

**H2:** Digital Financial literacy has a significant effect on digital payments

Digital payment innovation not only changes people's behavior patterns, but also becomes a vital component in business, banking, and personal financial management (Feinberg, 1986). Furthermore, Feinberg (1986) reveals that different alternative payment systems in a given economic and social environment can have a significant influence on the consumer behavior of a business. This condition is possible because the application of digital payments can indirectly shorten the payment queue, thereby reducing the number of customers who want to withdraw from the old purchasing process (Polasik *et al.*, 2013). Not only that, the existence of digital payments can provide convenience and flexibility for financial transactions for customers. Wu & Huang, (2022) explained in their research that the application of digital payments has revolutionized transaction methods and simplified the transaction process so that the application of digital payments provides the possibility to make many transactions online and supports real-time. If this condition occurs continuously, the velocity of money will be faster, and can indirectly increase sales. The increasing proportion of sales will also have an impact on increasing business profits if balanced with good and efficient financial management so that it can have an impact on increasing firm performance. Some of the results of this previous study also explained that digital payments contribute to improving firm performance (Daud *et al.*, 2022; Polasik *et al.*, 2013; Talom & Tengeh, 2020). In addition to digital payments affecting firm performance, digital payments can also act as a mediation between financial literacy and firm performance. The role of digital payments as mediation has been explained in the previous chapter through the results of previous research on the influence of financial literacy on digital payments (Prete, 2022; Matita & Cauma, 2018; Alprors & Suzuki, 2021), and the influence of digital payments on firm performance (Daud *et al.*, 2022; Polasik *et al.*,

2013; Talom & Tengeh, 2020). Based on this description, the hypotheses and models of this research framework are:

**H3:** Digital payment has a significant effect on firm performance

**H4:** Digital payment mediates the relationship between digital financial literacy and firm performance

## MATERIALS AND METHODS

This research is included in the explanatory research category, which aims to determine the role of digital payments in improving company performance. The object of this research is 472 small micro-enterprises that implement digital payments in Malang City. Data collection in this study used a questionnaire with a Linkert scale of 1 (strongly disagree) to 5 (strongly agree). The sampling technique in this study used purposive sampling with slovin's formula as a technique to decide on the sample size. Data was carried out as 216 samples that were appropriate with the sample criteria. Data analysis in this study used PLS (Partial Least Square) assisted by SmartPLS 3.3.3 software. The sampling criteria in this study include:

a. Micro Small Enterprises is running their business in Malang City.

b. Micro Small Enterprises that have run their business for at least 1 year (A business age of one to three years is categorized as an early stage in a startup) (Skala, 2019).

c. Micro Small Enterprises with a minimum annual sales turnover of IDR 10,000,000 in accordance with the classification of SMEs based on annual sales turnover (Law No. 20 of 2008, 2008).

d. Micro Small Enterprises that implement digital payments in their business.

### *Variable Measurement*

### 1. Digital Financial Literacy

Digital financial literacy refers to an individual's ability to use digital information and knowledge to make judgments, manage financial resources and make decisions related to finance in the context of digital financial technology. The measurement of financial literacy was analyzed from the research of Lyons & Kass-Hanna (2021) and Lyons & Kass-Hanna (2021) which was adjusted to the research conditions. The indicators used in this study include basic financial and digital knowledge, awareness of positive financial attitudes and behaviors, ability to make appropriate financial decisions, and risk management. One example of a statement item to measure digital financial literacy is knowledge about digital payment products.

### 2. Digital Payment

Digital payment refers to payments or sending money that are made digitally either using mobile phones (mobile banking, ovo, gopay, funds), contactless payments (NFC, Apple Pay, Samsung Pay) or the internet (PayPal, Amazon pay). The digital payment measurement was

adopted from the research of Daud *et al.* (2022) and Seldal & Nyhus (2022). The indicator used in this study is the type of payment method. One example of a statement item for measuring digital payments is the use of digital payments as a payment method.

### 3. Firm Performance

Firm performance refers to the results of the company's resource management over a certain period of time to find out how effective and efficient the business is in generating profits. Firm performance measurement was adopted from research (Agyapong & Attram, 2019; Demirbag *et al.*, 2006; Tuffour *et al.*, 2020), which was adapted to the research conditions. The indicators used in this study include sales growth, profit, and product and service quality. One example of a statement item used to measure firm performance is the proportion of sales that increase due to the implementation of digital payments.

## RESULTS AND DISCUSSION

### Results

### Characteristics of Respondents

The characteristics of the research participants reveal that a significant proportion of respondents, specifically 127 individuals, representing 58.80 percent (as displayed in Table 1), are female. This study's outcomes emphasize that business ventures are not limited to male ownership; females also play a substantial role. Looking at the educational distribution (Table 1), the highest percentage, 57.87%, equivalent to 125 respondents, possesses a diploma or bachelor's degree. This signifies that many MSMEs in East Java prioritize tertiary education, possibly contributing to their adeptness with technology compared to their counterparts.

**Table 1: Characteristics Respondents**

| Personal Demography | Indicator | Frequency | Procentage (%) |
|---|---|---|---|
| **Gender** | Male | 89 | 41.20 |
| | Female | 127 | 58.80 |
| **Total** | | **216** | **100** |
| **Education Level** | Elementary | 3 | 1.39 |
| | Junior High School | 6 | 2.78 |
| | Senior High School | 72 | 33.33 |
| | Undergraduate | 125 | 57.87 |
| | Postgraduate | 10 | 4.63 |
| **Total** | | **216** | **100** |

(Source: Primary Data, 2022)

### Evaluation Model

Testing the outer analysis model through validity and reliability testing. The results of the validity analysis through convergent validity are shown in table 2 explaining that there are three items that have a value of less than 0.60, so the item is eliminated. The two questionnaire items that were eliminated in the data analysis process were DFL2.2, and FL2.3. This condition is

supported by the explanation of Chin (1998: 327) and Muafi & Roostika (2014) which say that the factor loading value below 0.6 should be eliminated, then the questionnaire items can be tested for validity and reliability. The results of the re-convergent validity test have shown that the factor loading value ranges from 0.60 to 0.90 (table 2), so the research indicators are declared valid.

**Table 2: Validity and Reability**

| Variable | Items | Outer Loading | Cronbachs Alpha | AVE | CR | Decision |
|---|---|---|---|---|---|---|
| *Digital Financial Literacy* | DFL1.1 | 0.719 | 0.927 | 0.562 | 0.938 | **Valid** |
| | DFL1.2 | 0.727 | | | | |
| | DFL1.3 | 0.731 | | | | |
| | DFL2.1 | 0.605 | | | | |
| | DFL2.4 | 0.662 | | | | |
| | DFL2.5 | 0.677 | | | | |
| | DFL3.1 | 0.733 | | | | |
| | DFL3.2 | 0.618 | | | | |
| | DFL3.3 | 0.791 | | | | |
| | DFL4.1 | 0.844 | | | | |
| | DFL4.2 | 0.858 | | | | |
| | DFL4.3 | 0.590 | | | | |
| | DFL4.4 | 0.761 | | | | |
| *Digital Payment* | DP1.1 | 0.831 | 0.915 | 0.748 | 0.937 | **Valid** |
| | DP1.2 | 0.882 | | | | |
| | DP1.3 | 0.715 | | | | |
| | DP1.4 | 0.863 | | | | |
| | DP1.5 | 0.850 | | | | |
| *Firm Performance* | FP1.1 | 0.797 | 0.962 | 0.746 | 0.967 | **Valid** |
| | FP1.2 | 0.812 | | | | |
| | FP1.3 | 0.764 | | | | |
| | FP2.1 | 0.740 | | | | |
| | FP2.2 | 0.884 | | | | |
| | FP2.3 | 0.771 | | | | |
| | FP2.4 | 0.844 | | | | |
| | FP3.1 | 0.791 | | | | |
| | FP3.2 | 0.794 | | | | |
| | FP3.3 | 0.748 | | | | |

(Source: Primary Data, 2022)

The reliability test results shown in table 2 explain that the composite reliability value is above 0.70, the AVE (Average Variance Extracted) value is above 0.50, and is supported by the Cronbach alpha value above 0.60 for all research variables. The test results explain that all indicators measuring digital payment, digital financial literacy, and firm performance variables have met the requirements for reliability testing, so the research indicators can be declared reliable.

The result of the first outer model test is the coefficient of determination shown in table 3. The value of the coefficient of determination shown through the Adjusted R Square value of the digital payment is 0.505. This value explains that the digital payment variable is influenced by the financial literacy variable by as much as 63.8%, and the remaining 49.5% is influenced by other variables outside the research variables. The value of Adjusted R Square for the firm performance variable in this study is 0.645. This value explains that firm performance is influenced by digital financial literacy variables, and digital payment is 64.5%, while the remaining 35.5% is the contribution of other variables not included in this study.

**Table 3: Results of the Coefficient of Determination and Calculation of Predictive Relevance (Q2)**

| | R Square Adjusted |
|---|---|
| *DIGITAL PAYMENT (Z2)* | 0.505 |
| *FIRM PERFORMANCE(Y)* | 0.645 |
| $Q^2 = 1 - [(1 - R_1^2)(1 - R_2^2)]$ $Q^2 = 1 - [(1 - 0.505)(1 - 0.645)] = 0.824$ | |

(Source: Primary Data, 2022)

Note: $Q^2$ (*Q-Square predictive relevance*), $R_1^2$ (R-Square dari *Digital Payment*), $R_2^2$ (R-Square dari *Firm Performance*)

The calculation result of Q-Square predictive relevance (Q2) which is shown in table 4 is 0.824. This value explains that the research model can be said to be relevant or good because it has a value greater than 0. Not only that, but the Q-Square predictive relevance (Q2) value in this study also explains that this research model provides all relevant and accurate research information at 82.4%. The calculation result of the Goodness of Fit Model (GoF) is 0.676. The value above 0.36 for the category of Goodness of Fit Model (GoF) is strong or large. Thus, it can be concluded that the overall research model is strong or feasible. The third parameter is the Goodness of Fit Model (GoF). The Goodness of Fit Model (GoF) value is obtained through the following calculations:

$$GOF = \sqrt{\overline{Communality \; x \; \overline{R^2}}}$$

$$GOF = \sqrt{\overline{0.685 x \; 0.575}}$$

$$GOF = \sqrt{0.394}$$

$$GOF = 0.628$$

The calculation result of the Goodness of Fit Model (GoF) is 0.628. The value above 0.36 for the category of Goodness of Fit Model (GoF) is strong or large. Thus, it can be concluded that the overall research model is strong or feasible.

## DISCUSSION

### *Digital Financial Literacy and Firm Performance*

The results of the research hypothesis are shown in table 4. The results of this study indicate that digital financial literacy has a significant effect on firm performance (p-value = 0.000 < 0.05; β= 0.365), so H1 is **accepted**. These results explain that the level of digital financial literacy has an impact on increasing firm performance. This condition is because digital financial literacy is an important factor in improving firm performance. The results of the study also explain that business actors have a high or good level of digital financial literacy, so it is not surprising that a high level of digital financial literacy has a significant effect on improving firm performance. This can be shown from the test results which explain that the three indicators that make up digital financial literacy, and risk management indicators have the highest contribution. Individuals who have a high level of digital financial literacy can be characterized by their ability to manage risk in financial management. Individuals who can manage risk well can estimate the level of risk that will be accepted and can create risk mitigation strategies. This condition can be proven of the research from Yang *et al.* (2021) explained that the use of financial digitization if not balanced with a good level of financial literacy would be detrimental of the financial management among Chinese households. Furthermore, the results of this study reflect that the level of digital financial literacy determines how financial management can affect firm performance.

**Table 4: Results**

| Hipotesis | Information | Path Coefficient | SE | P-Value | Decision |
|---|---|---|---|---|---|
| **H1** | *Digital Financial Literacy –> Firm Performance* | 0.365 | 0.066 | 0.000 | **Accepted** |
| **H2** | *Digital Financial Literacy –> Digital Payment* | 0.711 | 0.044 | 0.000 | **Accepted** |
| **H3** | *Digital Payment –> Firm Performance* | 0.501 | 0.060 | 0.000 | **Accepted** |
| **H4** | *Digital Financial Literacy –>Digital Payment –> Firm Performance* | 0.400 | 0.057 | 0.000 | **Accepted** |

(Source: Primary Data, 2022)

Findings of this study indicate that business actors exhibit prudent digital financial literacy, as evidenced by non-consumptive behavior. This is highlighted by invalid test results for two credit behavior items. This discernment between needs and desires can influence the company's financial management strategies. The significant impact of digital financial literacy on firm performance is attributed to its harmonious combination with digital literacy. This symbiotic knowledge application enhances the utilization of digital finance tools for performance improvement. Given that the studied companies have adopted financial digitization, demanding proficient digital financial literacy from all employees, financial literacy alone lacks efficacy without digital grounding for digital financial decision-making. The amalgamation of financial technology and digitalization reshapes individual management practices. The concept of digital financial literacy encompasses knowledge, awareness, and skill, bridging financial and digital

literacy (Lyons & Kass-Hanna, 2021). These findings align with earlier research, affirming the role of financial literacy in enhancing firm performance (Adomako et al., 2016; Adomako & Danso, 2014; Agyapong & Attram, 2019; Ali & Li, 2021; Darroch, 2005; Ishtiaq et al., 2020; Karadag, 2017; Okello Candiya Bongomin et al., 2017; Tuffour et al., 2020; Wahyono & Hutahayan, 2021).

### Digital Financial Literacy and Digital Payment

The study's findings confirm the noteworthy impact of digital financial literacy on digital payments (p-value = 0.000 < 0.05; β = 0.711), making H2 as **accepted** (refer to Table 4). In essence, enhancing digital financial literacy levels positively correlates with increased adoption of digital payments. This is attributed to digital financial literacy's influence on individuals' behavioral tendencies and capabilities in utilizing digital payment methods. The data analysis highlights that many business actors employ digital payments for shopping, showcasing how digital financial literacy shapes behavioral norms and routines. Yong et al. (2018) affirm that heightened financial knowledge leads to improved individual behavior patterns. This stance is reinforced by several studies, asserting that elevated financial literacy relates to individual financial management practices (Lusardi & de Bassa Scheresberg, 2015; Setiawan et al., 2022), frequency of digital payment service use (Liao & Chun-Da, 2020), and electronic money usage decisions (Satoto & Putra, 2021). Selda & Nyhus (2022) similarly establish that enhanced financial literacy eases the digital payment process, evident by a decline in complaints related to payment difficulties. Moreover, their study emphasizes a direct correlation between financial literacy and increased utilization of digital payment technology (Selda & Nyhus, 2022).

The study's outcomes highlight the influence of financial literacy on the financial management practices of digital payment users. The findings also underscore that business actors predominantly employ digital payments for consumptive purposes, as indicated by two items reflecting inappropriate consumptive use. These results align with Yakooboshi et al.'s (2018) research, indicating heightened financial literacy prompts greater attention to transaction histories and increased tracking of online service account expenses. Data analysis further reveals a robust association between digital financial literacy and the substantial variance (63.8%) in the digital payment variable, implying the pivotal role of financial literacy in shaping business actors' digital payment behavior. This study's findings concur with prior research illustrating the connection between digital financial literacy and digital payments (Apiors & Suzuki, 2022; Bhuvana & Vasantha, 2019; Lo Prete, 2022; Matita & Chauma, 2018; Satoto & Putra, 2021).

### Digital Payment and Firm Performance

The results of this study indicate that digital payments have a significant effect on firm performance (p-value = 0.000 < 0.05; β = 0.501) ((see tabel 4), so H3 is **accepted.** These results explain that the application of digital payments has an impact on improving firm performance. The results of this study are also in line with several previous studies that digital payments contribute to improving firm performance (Daud *et al.*, 2022; Polasik *et al.*, 2013; Talom & Tengeh, 2020). This condition is possible because the application of digital payments provides

convenience and flexibility for financial transactions for customers. Wu & Huang, (2022) explained in their research that the application of digital payments has revolutionized transaction methods and simplified the transaction process so that the application of digital payments provides the possibility to make many transactions online and supports real-time. Not only that, the application of digital payments provides benefits for the side business actors and customers. Business actors can obtain and perform financial services quickly, simply, and reliably, while on the customer side it provides ease of transaction processing, and without any insignificant obstacles (Wu & Huang, 2022).

The study findings also reveal that implementing digital payments yields a positive influence on profit increments and the sales proportion. This effect is evident through the highest outer loading contributions stemming from digital payments and firm performance indicators (DP1.5, DP1.2, and FP2.2). These results underscore that integrating digital payments into sales transactions significantly boosts profitability. Talom & Tengeh's (2020) research reinforces these findings, demonstrating that payment technology adoption contributes substantially (73%) to SMEs' total turnover in Douala. This outcome is attributed to expedited sales transaction turnover, indirectly amplifying sales as digital payments minimize payment queues, thus reducing customer attrition during the purchasing process (Polasik et al., 2013).

The results of this study also explain that the form of payment is important for consumers to make purchases of these products. This condition can be proven from the results of research that the highest outer loading value of digital payments is that many customers choose digital wallets as a medium for payment transactions for product purchases. Runnemark *et al.* (2015) his research also found that the form of payment became important for customers to make product payments or not.

Not only that, but this research also shows that the application of digital payments can indirectly improve transaction security, not only for business owners and customers. The application of digital payment methods can make customers and business owners safe, because every transaction history can be traced, and facilitate complaints to financial institutions or related parties in the event of fraud or transaction errors. This condition is evidenced by the high contribution of outer loading from digital payments related to transaction security in the payment method. Thus, the application of digital payment methods provides complex benefits such as increased transaction security, changes in customer habits, and customer spending levels (Agarwal *et al.*, 2020; Feinberg, 1986; Hirschman, 1979; Runnemark *et al.*, 2015).

### *Digital Financial Literacy, Digital Payment, and Firm Performance*

The results of this study explain that digital payments mediate the relationship between digital financial literacy and firm performance (p-value = 0.000 < 0.05; β = 0.400), so H4 is **accepted** (see tabel 4)**.** Digital payment is able to become a partial mediation variable due to a significant direct influence on firm performance. This shows that digital payments are good in the use of various types of payment technology and types of payment methods provide support for digital financial literacy to improve firm performance. Individuals who have good digital financial literacy will know and use digital payment products. This condition can be seen from the test

results which explain that the provision of digital payment methods is the highest contribution from digital payment measurements. Not only that, the results of this study also explain that the application of digital payments indirectly provides a sense of security in transactions for business actors and customers. This condition is evidenced by the analysis results which show that business actors have increased the proportion of sales with the implementation of digital payments. This condition is one of the parameters for measuring firm performance.

The application of digital payments will reduce information asymmetry and increase risk efficiency by identifying the quality of business credit (Wu & Huang, 2022), and with good financial literacy, business actors can identify business quality and control risk costs (Xin *et al.,* 2022), so that it can measure and improve firm performance (Jiang *et al.*, 2022). The role of mediation in this study, although partial mediation still has a greater impact than the direct effect resulting from the dependent and independent variables. This is evidenced by the path coefficient value on the direct effect of 0.015, while through mediation it is 0.223, so the influence of digital financial literacy on firm performance will have a greater impact if it is supported by digital payments.

## CONCLUSION

This study aimed to achieve two key objectives: firstly, to establish the connections between digital financial literacy, digital payment, and firm performance; secondly, to uncover the role of digital payment as a mediator in the relationship between digital financial literacy and firm performance. The findings revealed a strong link between digital financial literacy, digital payment, and enhanced firm performance. Digital financial literacy serves as a precursor to the connection between digital payments and firm performance. This is possible because a balanced comprehension of financial and digital literacy allows for the effective utilization of digital financial tools, thereby boosting firm performance. Additionally, the study found that digital payment acts as a partial mediator in the relationship between digital financial literacy and firm performance. Leveraging various payment technologies and methods, digital payment enhances the influence of digital financial literacy on firm performance. Moreover, the application of digital payments mitigates information imbalances during transactions and enhances risk efficiency by assessing the quality of business loans.

## LIMITATION AND FUTURE RESEARCH

The study findings highlight the alignment between academic literature and real-world scenarios, establishing a connection between digital financial literacy, digital payments, and firm performance levels. The metrics employed to gauge digital financial literacy and payments pertain to businesses already utilizing digital financial products, implying a strong existing proficiency. Nevertheless, this study bears limitations. Firstly, though it portrays positive financial literacy and non-consumeristic behavior among current business participants, its applicability to other MSMEs is restricted. Secondly, data collection occurred amidst Indonesia's "new normal," mandating remote survey methods like Google Forms due to in-person restrictions. Thirdly, the study's sample encompassed diverse MSMEs in East Java,

irrespective of business type. Enhancing future research involves refining sample selection criteria and size to enhance representativeness and expanding the scope beyond the current variables.

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