

DIGITAL ADOPTION AND FINANCIAL PERFORMANCE: EVIDENCE FROM INDONESIAN SMES IN FOOD AND BEVERAGE SECTOR

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ABSTRACT

Digital adoption is now starting to be utilized by SMEs business actors. This study aims to examine the impact of digital technology adoption on financial performance. Data collection in this study used a survey of 520 SMEs in the food and beverage sector in Indonesia, data analysis was carried out using the purposive sampling method. The variables of concern in this study are digital finance, digital payments, and digital marketing. Furthermore, financial literacy and financial inclusion are proposed as moderation. The results show that digital finance, digital payments and digital marketing have a positive and significant influence on the financial performance of SMEs, so it can be concluded that SMEs that adopt digital technology tend to have better performance. Furthermore, moderation of financial literacy and financial inclusion are unable to strengthen the relationship between digital finance, digital payments and digital marketing to financial performance. The implication of this research is that it is important for business owners to consider the adoption of digital technology in order to improve financial performance. The number of businesses that experience an increase in financial performance, will also be followed by an increase in the Indonesian economy. The limitations during this study were conducted, such as the number of large SMEs samples that were not comparable to other groups, as well as research results that could not be widely applied to other sectors.

Keywords: *Digital Adoption; Financial Performance; Indonesian SMEs*

INTRODUCTION

SMEs play a role as the main driver of economic growth because of their important role in improving a country's economy (Charoenrat & Harvie, 2014). SMEs are a special concern for the Government in various countries, one of which is in Indonesia. This attention, of course, is so that the SMEs sector can carry out its role optimally as a supporter of the national economy. Based on, (Hartarto, 2022) (ASEAN Investment Report 2022), the number of SMEs in Indonesia is 65,465.5 million. In fact, the role and contribution of SMEs in the economy can be proven from the absorption of labor, the number of business units, and contributing to gross domestic product (GDP). In Indonesia, the contribution of GDP is 60.5% while the contribution to employment is 96.9%. However, it is undeniable that in today's increasingly competitive business environment, the competitiveness of SMEs, especially in developing countries, such as Indonesia, is strongly influenced by their ability to adapt to technology (Najib & Kiminami, 2011). Therefore, it is very important to know the adoption process and behavior of SMEs in Indonesia towards new technologies (Najib & Fahma, 2020). Digital adoption from this study focuses on three things, namely digital marketing, digital payments and digital finance. First, digital finance, which is digital financial services offered in digital channels such as PoS, ATMs, Cash Deposit Machines, and others with internet facilities. With the use of these services, it is expected to ease SME financing constraints. Second, digital payments. (Apasrawirote & Yawised, 2021) the use of digital payments in SMEs is a supporting strategy tool that combines elements of marketing, sales, and customer service. The adoption of digital payments plays an important role for consumers and merchants in making payments and providing payment information (Igudia, 2018). Finally, digital marketing which is a form of effort in marketing the products offered. Digital marketing is considered capable of increasing product marketability, especially for SMEs (Purba et al.,

2021). Based on data from the official website of Kominfo, (Doni, 2022), the condition of SMEs in Indonesia that have entered the digital ecosystem of around 8 million SMEs has gone online, this increase is quite significant compared to the previous year. In the end, digital adoption can provide benefits for both parties, for business owners in addition to increasing sales also allows sellers to record every transaction made, on the other hand consumers feel comfortable with the ease of placing orders and payment transactions.

With the development of the internet and other digital media, people have greater access in developing their digital lives to various existing financial products and services, so that there is a need for complex financial decision making by the community. To reduce financial errors, people need to improve financial literacy to achieve better market efficiency and social welfare. ADB (2016), indicating that low financial literacy and low awareness of digital financial channels can reduce customer patronage of digital financial channels to conduct basic financial platforms. Financial literacy is a source of knowledge to help businesses adapt to the changing business environment and be able to take advantage of changes that occur (Ye & Kulathunga, 2019). The goal of financial literacy is to provide the information needed to budget, save finances, and make wise investment decisions (Adomako et al., 2016). (Hussain et al., 2018) states that knowledge resources, such as financial literacy and business experience can maintain the performance of SMEs well.

In addition to financial literacy, financial inclusion is believed to be able to develop SMEs because business actors understand the basic concepts of financial products, carry out financial planning and management well, as well as fraud and unhealthy businesses in the financial market (OJK, 2016). This is also supported by research conducted by (Terzi, 2015) in the research shows that the increasing financial inclusion by SMEs, it can make a positive contribution to the success of SMEs and ultimately can increase a country's financial stability. The use of digital can encourage inclusion to achieve sustainable development especially in developing countries (Jamil, 2020). People's access to the use of technology is an important factor in improving the quality of life because it provides opportunities to obtain useful information and services (Ragnedda & Gladkova, 2020). Financial inclusion in SMEs has potential macrofinancial benefits, such as economic growth (Manzoor et al., 2021), higher employment, poverty alleviation, macroeconomic policy effectiveness and macrofinancial stability (Ahmed et al., 2011).

From the exposure that has been explained, the study wants to discuss the role of digital adoption on the financial performance of SMEs. This study is the latest research from previous researchers (Daud et al., 2022). where this study focuses on the food and beverage sector in Indonesia with moderation of financial literacy and financial inclusion. This gap raises three main research questions: Can digital adoption by SMEs in the food and beverage sector improve SMEs financial performance? Then does financial literacy have an important role in the relationship between digital adoption and SMEs financial performance? Finally, does financial inclusion have an important role in the relationship between digital adoption and SMEs financial performance? The purpose of this study is to analyze the support of digital adoption of SMEs financial performance with a focus on the food and beverage sector in Indonesia. The results of this research are expected to provide benefits both theoretically and managerially.

Technology Acceptance Model (TAM)

Technology Acceptance Model (TAM) is a development of the previous theory, namely Reason Action Theory (TRA) developed by Davis Buabeng-Andoh, (2018). TAM became one of the most cited theoretical frameworks for studying the adoption of various technologies (De Luna et al., 2019; Madan & Yadav, 2016). . TAM, a theory that explains information user systems accept and use technology "perceived usefulness" and "perceived ease of use" as a basis for accepting or rejecting a particular technology (Aburahmah et al., 2016; Tahar et al., 2020) . TAM is considered an established and powerful model in predicting the factors that influence technology acceptance (Alalwan et al., 2018). Furthermore, (Thathsarani & Jianguo, 2022) the TAM model is considered to be able to support financial inclusion and SMEs performance. TAM can be used to understand individual behavior in adopting digital which is increasingly growing. In terms of financial

inclusion, TAM can be used to understand how individuals and SMEs access and receive digital financial services. The purpose of this model is to find out what are its internal elements, external factors can also influence individual beliefs and intentions, and are used according to technology determined based on behavioral intentions.

The Effect of Digital Adoption on SMEs Financial Performance

The development of digital finance is believed to increase productivity and encourage economic development (Demirgüç-Kunt et al., 2020). Furthermore, Huang et al (2022) explained that digital finance can drive increased consumption of the population by expanding the scope of financial services and optimizing the payment environment. (Ozili, 2018) Digital finance has many benefits, such as digital finance can lead to greater financial inclusion, digital finance has the potential to provide affordable, convenient, and safe banking services for poor individuals in developing countries, digital finance also has benefits for financial and monetary system regulators as full-scale adoption of digital finance can significantly reduce the circulation of counterfeit (or counterfeit) money, and others. Then, in fact, if you have access to digital financing, it will have an impact on business performance profits (Abbasi & Weigand, 2017; Ozili, 2018) Finally, digital finance can improve SMEs operational efficiency, because it can improve the quality of SMEs information disclosure, and build an effective information sharing mechanism to improve SMEs operational efficiency.

Furthermore, the payment system is divided into two, namely digital payments and traditional payments. Payments are traditionally made through cash, checks, or credit cards while digital payments are made using certain software, payment cards, and electronic money (Noviana & Darma, 2020). The adoption of digital payments provides convenience compared to traditional payments for users because users can pay without having to move places, and users can not have to worry about changing money differences. (Prahawan et al., 2021), the application of digital payments can help manage their finances to achieve a goal or goal, which is to generate large profits so that businesses become good and have the ability to determine and respond to changes in the economy, business environment, finance and decision-making ability will create innovative solutions for improving financial performance and business sustainability of SMEs activities

Finally, digital adoption, in the current era of digitalization, digital marketing adoption can be used to market, communicate and make transactions at any time / real time. Social media allows organic marketing at no cost or cheap, where companies create content and share it with media users (Lipsman et al., 2012). Furthermore, through social media can be a place to find information and insights about the market, competitors, and potential customers and their needs (Parveen et al., 2016). In the business world, digital marketing strategies are believed to increase sales turnover and can cause changes in consumer behavior in choosing and making buying and selling transactions (Peter et al., 2020; Pollák & Markovič, 2021; Putra & Santoso, 2020). From these explanations, hypotheses are built, as follows:

H₁ : Digital finance has a significant and positive effect on the financial performance of SMEs

H₂ : Digital payments have a significant and positive effect on the financial performance of SMEs

H₃ : Digital marketing has a significant and positive effect on the financial performance of SMEs

The Power of Financial Literacy as Moderator

Financial literacy is considered a strong intellectual capital in the performance of SMEs. In the world of SMEs, financing is one of the main problems faced by SMEs related to their innovation activities (Brancati, 2015). For this reason, it is important to analyze the mechanisms owned by SMEs managers to encourage access to financing and be able to carry out their innovation activities (García-Pérez-de-Lema et al., 2021). (Bayrakdaroğlu & Şan, 2014) Good financial literacy participates more actively in financial markets, then achieves more favorable access to credit (Hakim et al., 2018). García-Pérez-de-Lema et al (2021) Financial literacy can help in reducing financial constraints. Financial literacy is believed to improve the performance of SMEs in the business environment by strengthening the organization's knowledge base (Jappelli & Padula, 2013; Lusardi et al., 2014). Ye & Kulathunga (2019) Financial literacy is a source of knowledge that determines the sustainability of SMEs. Therefore, increasing knowledge about financial literacy is indeed very significant and imperative for the performance of SMEs.

H_{4a} : Financial literacy moderates the relationship of digital finance to the financial performance of SMEs

H_{4b} : Financial literacy moderates the relationship of digital payments to the financial performance of SMEs

H_{4c} : Financial literacy moderates the relationship of digital payments to the financial performance of SMEs

The Power of Financial Inclusion as Moderator

Globally, financial inclusion is one of the key issues for economies and the achievement of inclusive growth in both developed and developing countries. Financial inclusion is a government system for having real access to financial products and services. Universal access to financing boosts economic activity and enables SMEs to thrive as well as create better opportunities and incomes (Park & Mercado, 2015). Financial inclusion in SMEs has potential macroeconomic benefits, including economic growth (Manzoor et al., 2021). Financial inclusion has been recognized as an important economic goal and an important policy tool with important implications for achieving the sustainable development goals (Klapper et al., 2016). Then, the development of digital financial inclusion provides benefits for sustainable growth for businesses and competitive markets (Yang & Zhang, 2020).

H_{5a} : Financial inclusion moderates digital financial relations to SME financial performance

H_{5b} : Financial inclusion moderates the relationship of digital payments to the financial performance of SMEs

H_{5c} : Financial inclusion moderates the relationship of digital payments to the financial performance of SMEs

RESEARCH METHOD

This study was conducted to analyze the effect of digital adoption on the financial performance of SMEs in Indonesia. This study used quantitative methods using Stata Ver 17. The survey was conducted online and offline during January 2023 using purposive sampling. The sample criteria determined are SMEs in the food and beverage sector that have adopted digital. This study is only centered on the Indonesian island of Java which consists of the provinces of Jakarta, West Java, D.I Yogyakarta, Central Java and East Java, as the study area, because this region is the most populous island in Indonesia, about 56% of Indonesians live on this island and it is also the center of government administration, business, and industry (Affandi et al., 2019).

Table 1
Characteristics of Respondents

Profile Demographics	Frequency	Percentage
Gender		
Male	353	68%
Female	167	32%
N = 520		
Age (Years)		
20 - 30	147	28%
31 - 40	206	40%
41 - 50	132	25%
> 50	35	7%
N = 520		
Recent Education		
Elementary School	3	1%
Junior High School	65	13%
Senior High School	227	44%
Bachelor Degree	223	43%

Magister/Doktor – Posgraduate	2	0%
N = 520		
Domicile		
Jakarta	111	21%
West Java	104	20%
D.I Yogyakarta	102	20%
Central Java	100	19%
East Java	103	20%
N = 520		
Business Experience (Years)		
< 5	156	30%
5 - 10	261	50%
11 - 15	66	13%
> 15	37	7%
N = 520		
Duration of Business Operations		
< 3	95	18%
3 - 5	236	45%
5 - 10	87	17%
> 10	102	20%
N = 520		
Income (Rp)		
< 10 million/month	295	57%
10 - 20 million/month	162	31%
21 - 30 million/month	52	10%
> 30 million/month	11	2%
N = 520		

Source: Processed Data

RESULT AND DISCUSSION

In general, this study aims to examine the effect of digital adoption on financial performance in SMEs using the lens of the Technology Acceptance Model (TAM) model. The hypotheses formulated were tested on 520 SMEs in the food and beverage sector in Indonesia. Digital adoption tested included digital finance, digital payments and digital marketing. This research successfully found that digital finance, digital payments and digital marketing positively and significantly affect the financial performance of SMEs in Indonesia.

Table 2
Validity and Reliability Test Results

Variable	Sig Value	Cronbach
Digital Finance	0,000	0,65
Digital Payments	0,000	0,67
Digital Marketing	0,000	0,65
Financial Literacy	0,000	0,50
Financial Inclusion	0,000	0,46

Financial Performance	0,000	0,75
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Source: Processing Data

In Table 2. Test Validity and Reliability Sig value $0.000 < 0.05$ then the independent variables in the study passed the validity test and the value of Cronbach, alpha on each independent variable > 0.60 so that the variables were reliable. However, the Cronbach value on the moderation variable showed a low reliability value, which was < 0.60 .

Table 3
R-Square Adjusted Test

Variable	R-square adjusted
Financial performance	0,4243

Source: Processing Data

In the table. 3 It can be explained that the adjusted $R^{\text{value of } 2}$ independent variables of digital finance, digital payments, and digital marketing only contributed 42.43% and the remaining 57.57% was explained by other variables not explained in this study.

Table 4
Test the hypothesis

Variable	t	P> t	Conclusion
Digital Finance	6.42	0,000	Positive and Significant
Digital Payments	6.82	0,000	Positive and Significant
Digital Marketing	8.49	0,000	Positive and Significant

Source: Processing Data

In this study, digital adoption of digital finance has a positive and significant influence on the financial performance of SMEs, according to the results of research that has been conducted in the Table. 4 Sig value of $0.000 < 0.05$, meaning that digital finance has a positive and significant effect on financial performance. This research is in line with previous research (Daud et al., 2022). Sharma & Sharma (2019), digital financial services as a key driver of use intention and satisfaction in using mobile banking. By using digital financial technology, SMEs can increase their efficiency and productivity in conducting financial transactions, including payments, remittances, and overall financial management. Furthermore, the adoption of digital payments, the value of Sig $0.000 < 0.05$ means that digital payments have a positive and significant influence on the financial performance of SMEs. These results are also in line with previous research (Daud et al., 2022). Digital payments certainly make transactions safer, more practical, easier and more efficient. With digital payment technology, business actors in real time can check payments when transactions occur, so that business actors can record finances accurately, then sales money can also be directly stored in the bank which can reduce the risk of losing money and lastly of course can reduce the risk of receiving payments with counterfeit money. In fact, based on the official website (Bank Indonesia, 2022) currently QRIS users have reached more than 16 million merchants, 90% of which are SMEs. Finally, the adoption of digital marketing, has a sig value of $0.000 < 0.05$, meaning that digital marketing has a positive and significant influence on financial performance. These results are in line with previous research (Affandi et al., 2020; David et al., 2022; Noviana & Darma, 2020). The rise of online food and beverage delivery services is considered to contribute positively to SMEs. (Alvara Beyond Insight, 2022) OFD services contribute more than half of the income of partnered SMEs, reaching 56.8% and the remaining 43.2% selling

offline. Interestingly, selling through digital platforms, OFD is proven to accelerate sales up to 1.9 times compared to only selling offline. Digital marketing can be done by business owners through social media, web, and third-party ordering services (GrabFood, GoFood, ShopeeFood). Delivery services allow consumers to be more flexible in ordering food, can provide feedback in the form of comments, both excellence and anxiety in orders which can later be a reference for business owners to improve their performance.

Table 5
Financial Literacy Moderation Test

Variable	t	P> t
Digital Finance	-1,23	0,22
Digital Payments	0,50	0,62
Digital Marketing	-2,03	0,04

Source: Processing Data

Furthermore, financial literacy is an ability to manage and solve financial problems, as well as behaviors and mindsets that affect an individual's financial situation for the better. by (Angeles, 2022; Daud et al., 2022). In this study, financial literacy was unable to moderates the relationship between digital adoption, namely digital finance and digital payments, on financial performance as evidenced the results in the Table. 5, Sig value > 0.05. Digital financial literacy is not able to moderates the relationship between digital finance and financial performance because business actors most likely do not involve basic knowledge of financial management in responding to finance (Shellyna & Yuwono, 2022). Then, financial literacy is not able to moderates the relationship between digital payments and financial performance, it is likely that business actors already have an understanding of the importance of financial literacy in making a decision, often this understanding is only contemporary (Mandell & Klein, 2007). Furthermore, in the results of this study, financial literacy weakens the relationship between digital marketing and financial performance as evidenced in the Table. 5, Sig value < 0.05 with t value -2.03. This result is not in line with research (Gustika et al., 2021) which states that the implementation of financial literacy can increase income through digital marketing for SMEs businesses. The moderation of financial literacy which actually weakens the relationship between digital marketing and financial performance shows the need to increase awareness of the benefits of digital marketing, where digital marketing can help business actors to be efficient in marketing their products so that in the end it will increase business income.

Table 6
Financial Inclusion Moderation Test

Variable	t	P > t
Digital Finance	-0,16	0,88
Digital Payments	0,50	0,61
Digital Marketing	-1,63	0,10

Source: Processing Data

In addition, moderation of financial inclusion is also unable to moderates the relationship between digital adoption and digital finance, digital payments, and digital marketing on financial performance. It can be seen from the results of Table 6. Sig value > 0.05 This research conducted in Java Island is that the majority of business actors have adopted digital, so they can better take advantage of existing opportunities to improve their business performance. Financial inclusion is unable to moderates the relationship between digital adoption and SMEs financial performance

because the implementation of good digital adoption has opened the mindset of SMEs actors to be wider extent (Hilmawati & Kusumaningtias, 2021). Although the level of use of digital-based financial services is getting higher, it does not support the achievement of financial inclusion implementation (Irmawati et al., 2022). In addition in (Dermawan, 2019), financial inclusion research does not have an influence on the financial performance of SMEs because the continuity of a business lies in the hands of its owner, where when financial inclusion can bring great benefits, business actors are interested in using it and vice versa.

CONCLUSION

This research successfully shows that digital adoption has a significant and positive effect on SMEs in the food and beverage sector in Indonesia. The findings of this study show that SMEs that adopt digital can have better financial performance. However, the results of this study show that financial literacy and financial inclusion are not able to strengthen the relationship between digital adoption and financial performance. The implication that can be applied is that business actors should improve the quality of digital use which will continue to grow. Furthermore, the government can also be more consistent in providing training on digital use to provide strong support for SMEs. This research is limited by respondents used are SMEs that have adopted digital. Future research may consider broader and more diverse sector coverage, other variables influencing digital technology adoption, adopting other models, such as UTAUT, as well as sample areas in cities from Sabang to Merauke to generalize these findings.

REFERENCES

- Abbasi, T., & Weigand, H. (2017). *The Impact of Digital Financial Services on Firm's Performance: a Literature Review*. <http://arxiv.org/abs/1705.10294> [Google Scholar](#)
- Aburahmah, L., Alrawi, H., Izz, Y., & Syed, L. (2016). Online Social Gaming and Social Networking Sites. *Procedia Computer Science*, 82, 72–79. <https://doi.org/10.1016/j.procs.2016.04.011> [Google Scholar](#)
- ADB. (2016). *Accelerating Financial Inclusion In South-East Asia With Digital Finance Asian Development Bank*. [Google Scholar](#)
- Adomako, S., Danso, A., & Ofori Damoah, J. (2016). The moderating influence of financial literacy on the relationship between access to finance and firm growth in Ghana. *Venture Capital*, 18(1), 43–61. <https://doi.org/10.1080/13691066.2015.1079952> [Google Scholar](#)
- Affandi, A., Sobarna, A., Erlangga, H., Onny Siagian, A., Purwanto, A., & Amin Effendy, A. (2020). Optimization of MSMEs Empowerment in Facing Competition in the Global Market during the COVID-19 Pandemic Time. *Systematic Reviews in Pharmacy*, 11(11), 1506–1515. [Google Scholar](#)
- Affandi, Y., Anugrah, D. F., & Bary, P. (2019). Human capital and economic growth across regions: a case study in Indonesia. *Eurasian Economic Review*, 9(3), 331–347. <https://doi.org/10.1007/s40822-018-0114-4> [Google Scholar](#)
- Ahmed, V., Wahab, M. A., & Mahmood, H. (2011). *Effectiveness of HRD for developing SMEs in South Asia*. [Google Scholar](#)
- Alalwan, A. A., Baabdullah, A. M., Rana, N. P., Tamilmani, K., & Dwivedi, Y. K. (2018). Examining adoption of mobile internet in Saudi Arabia: Extending TAM with perceived enjoyment, innovativeness and trust. *Technology in Society*, 55, 100–110. <https://doi.org/10.1016/j.techsoc.2018.06.007> [Google Scholar](#)

- Alvara Beyond Insight. (2022). *Digitalization of MSMEs: The Impact of Digital Platforms on Culinary MSMEs Report*. www.alvara-strategic.com [Google Scholar](#)
- Angeles, I. T. (2022). The Moderating effect of Digital and Financial Literacy on the Digital Financial Services and Financial Behavior of MSMEs. *Review of Economics and Finance*, 20(20), 505–515. [Google Scholar](#)
- Apasrawirote, D., & Yawised, K. (2021). The Factors Influencing the Adoption of E-Payment System by SMEs. *International Journal of Innovation, Creativity and Change*, 15(8), 1–18. <https://www.researchgate.net/publication/352560708> [Google Scholar](#)
- ASEAN Investment Report 2022. (2022). [Google Scholar](#)
- Bank Indonesia. (2022). *Konsumennya Saja Sudah Digital, Umkm-Nya Juga Dong!* Bank Indonesia. [Google Scholar](#)
- Bayrakdaroglu, A., & Şan, F. B. (2014). Financial Literacy Training as a Strategic Management Tool among Small – Medium Sized Businesses Operating in Turkey. *Procedia - Social and Behavioral Sciences*, 150, 148–155. <https://doi.org/10.1016/j.sbspro.2014.09.019> [Google Scholar](#)
- Brancati, E. (2015). Innovation financing and the role of relationship lending for SMEs. *Small Business Economics*, 44, 449–473. <https://doi.org/10.1007/s11187-014-9603-3> [Google Scholar](#)
- Charoenrat, T., & Harvie, C. (2014). The efficiency of SMEs in Thai manufacturing: A stochastic frontier analysis. *Economic Modelling*, 43, 372–393. <https://doi.org/10.1016/j.econmod.2014.08.009> [Google Scholar](#)
- Daud, I., Nurjannah, D., Mohyi, A., Ambarwati, T., Cahyono, Y., Haryoko, A. D. E., Handoko, A. L., Putra, R. S., Wijoyo, H., Ari-Yanto, A., & Jihadi, M. (2022). The effect of digital marketing, digital finance and digital payment on finance performance of Indonesian smes. *International Journal of Data and Network Science*, 6(1), 37–44. <https://doi.org/10.5267/J.IJDNS.2021.10.006> [Google Scholar](#)
- De Luna, I. R., Liébana-Cabanillas, F., Sánchez-Fernández, J., & Muñoz-Leiva, F. (2019). Mobile payment is not all the same: The adoption of mobile payment systems depending on the technology applied. *Technological Forecasting and Social Change*, 146, 931–944. <https://doi.org/10.1016/j.techfore.2018.09.018> [Google Scholar](#)
- Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2020). The Global Findex Database 2017: Measuring Financial Inclusion and Opportunities to Expand Access to and Use of Financial Services. *World Bank Economic Review*, 34, S2–S8. <https://doi.org/10.1093/wber/lhz013> [Google Scholar](#)
- Dermawan, T. (2019). Pengaruh Literasi, Inklusi Dan Pengelolaan Keuangan Terhadap Kinerja Dan Keberlanjutan Umkm (Studi Pada Pelaku Usaha Mikro Mahasiswa Universitas Brawijaya). *Jurnal Ilmiah Mahasiswa FEB*, 8(1). [Google Scholar](#)
- Doni. (2022). *UMKM Naik Kelas, UMKM Go Digital*. [Google Scholar](#)

- García-Pérez-de-Lema, D., Ruiz-Palomo, D., & Diéguez-Soto, J. (2021). Analysing the roles of CEO's financial literacy and financial constraints on Spanish SMEs technological innovation. *Technology in Society*, 64. <https://doi.org/10.1016/j.techsoc.2020.101519> [Google Scholar](#)
- Gustika, G. S., Suharmiyati, & Corrina, F. (2021). Peningkatan Pendapatan Di Masa Pandemi Dengan Mengaplikasikan Literasi Keuangan Melalui Sosialisasi Digital Marketing Bagi Pelaku Usaha Umkm Di Desa Japura. *Jurnal Pengabdian Kepada Masyarakat*, 3(1), 147–164. [Google Scholar](#)
- Hakim, M. S., Oktavianti, V., & Gunarta, I. K. (2018). Determining factors that contribute to financial literacy for small and medium enterprises. *IOP Conference Series: Materials Science and Engineering*, 337(1). <https://doi.org/10.1088/1757-899X/337/1/012064> [Google Scholar](#)
- Hartarto, A. (2022). *Pembiayaan UMKM* (I. Simorangkir, Ed.; 1st ed.). RajaGrafindo Persada. [Google Scholar](#)
- Hilmawati, M. R. N., & Kusumaningtias, R. (2021). Inklusi Keuangan dan Literasi Keuangan Terhadap Kinerja dan Keberlangsungan Sektor Usaha Mikro Kecil Menengah. *Nominal: Barometer Riset Akuntansi Dan Manajemen*, 10(1), 135–152. [Google Scholar](#)
- Huang, Y., Xu, T., Yin, Y., & Zhou, Z. (2022). Analysis of the Impact of Digital Finance Development on Household Consumption of Urban and Rural Residents in China-Microscopic Evidence from Chinese Families. *Frontiers in Humanities and Social Sciences*, 2(5), 194–202. [Google Scholar](#)
- Hussain, J., Salia, S., & Karim, A. (2018). Is knowledge that powerful? Financial literacy and access to finance: An analysis of enterprises in the UK. *Journal of Small Business and Enterprise Development*, 25(6), 985–1003. <https://doi.org/10.1108/JSBED-01-2018-0021> [Google Scholar](#)
- Igudia, O. P. (2018). Electronic Payment Systems Adoption by SMEs in Nigeria: A Literature Review. *Nigerian Journal of Management Sciences*, 6(2), 150–165. <https://doi.org/10.15580/GJAS.2018.3.031218042> [Google Scholar](#)
- Irmawati, H. R., Majid, J., & Suhartono, S. (2022). Faktor-Faktor Yang Mempengaruhi Kinerja Perusahaan Dimoderasi Oleh Financial Technology. *JPS (Jurnal Perbankan Syariah)*, 3(2), 142–159. <https://doi.org/10.46367/jps.v3i2.785> [Google Scholar](#)
- Jamil, S. (2020). Journalism for sustainable development: The imperative of journalists' rights to freedom of expression and access to information for promoting sustainable development in Pakistan. *Journal of Applied Journalism and Media Studies*, 9(3), 271–291. https://doi.org/10.1386/ajms_00016_1 [Google Scholar](#)
- Jappelli, T., & Padula, M. (2013). Investment in financial literacy and saving decisions. *Journal of Banking and Finance*, 37(8), 2779–2792. <https://doi.org/10.1016/j.jbankfin.2013.03.019> [Google Scholar](#)
- Klapper, L., El-Zoghbi, M., & Hess, J. (2016). *Achieving the Sustainable Development Goals The Role of Financial Inclusion*. www.cgap.org [Google Scholar](#)

- Lipsman, A., Mudd, G., Rich, M., & Bruich, S. (2012). How Brands Reach (and Influence) Fans Through Social-Media Marketing. *Journal of Advertising Research*, 4(3), 40–52. <https://doi.org/10.2501/JAR-52-1-040-052> [Google Scholar](#)
- Lusardi, A., Mitchell, O. S., & Curto, V. (2014). Financial literacy and financial sophistication in the older population. *Journal of Pension Economics and Finance*, 13(4), 347–366. <https://doi.org/10.1017/S1474747214000031> [Google Scholar](#)
- Madan, K., & Yadav, R. (2016). Behavioural intention to adopt mobile wallet: a developing country perspective. *Journal of Indian Business Research*, 8(3), 227–244. <https://doi.org/10.1108/JIBR-10-2015-0112> [Google Scholar](#)
- Mandell, L., & Klein, L. S. (2007). Motivation and Financial Literacy. *Financial Services Review*, 16, 105–116. [Google Scholar](#)
- Manzoor, F., Wei, L., & Siraj, M. (2021). Small and medium-sized enterprises and economic growth in Pakistan: An ARDL bounds cointegration approach. *Heliyon*, 7(2). <https://doi.org/10.1016/j.heliyon.2021.e06340> [Google Scholar](#)
- Najib, M., & Fahma, F. (2020). Investigating the adoption of digital payment system through an extended technology acceptance model: An insight from the Indonesian small and medium enterprises. *International Journal on Advanced Science, Engineering and Information Technology*, 10(4), 1702–1708. <https://doi.org/10.18517/ijaseit.10.4.11616> [Google Scholar](#)
- Najib, M., & Kiminami, A. (2011). Innovation, cooperation and business performance: Some evidence from Indonesian small food processing cluster. *Journal of Agribusiness in Developing and Emerging Economies*, 1(1), 75–96. <https://doi.org/10.1108/20440831111131523> [Google Scholar](#)
- Noviana, I. P. T., & Darma, G. S. (2020). Exploring Digital Marketing Strategies During the New Normal Era in Enhancing the Use of Digital Payment. *Jurnal Mantik*, 4(3), 2257–2262. <https://iocscience.org/ejournal/index.php/mantik> [Google Scholar](#)
- OJK. (2016). *OJK Memberdayakan UMKM Melalui Literasi Dan Inklusi Keuangan*. [Google Scholar](#)
- Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, 18(4), 329–340. <https://doi.org/10.1016/j.bir.2017.12.003> [Google Scholar](#)
- Park, C.-Y., & Mercado, R. V. (2015). *Financial Inclusion, Poverty, and Income Inequality in Developing Asia*. www.adb.org [Google Scholar](#)
- Parveen, F., Jaafar, N. I., & Ainin, S. (2016). Social media's impact on organizational performance and entrepreneurial orientation in organizations. *Management Decision*, 54(9), 2208–2234. <https://doi.org/10.1108/MD-08-2015-0336> [Google Scholar](#)
- Peter, M. K., Kraft, C., & Lindeque, J. (2020). Strategic action fields of digital transformation: An exploration of the strategic action fields of Swiss SMEs and large enterprises. *Journal of Strategy and Management*, 13(1), 160–180. <https://doi.org/10.1108/JSMA-05-2019-0070> [Google Scholar](#)

- Pollák, F., & Markovič, P. (2021). Size of business unit as a factor influencing adoption of digital marketing: Empirical analysis of SMEs operating in the central European market. *Administrative Sciences, 11*(3). <https://doi.org/10.3390/admsci11030071> [Google Scholar](#)
- Prahiawan, W., Fahlevi, M., Juliana, J., Purba, J. T., & Tarigan, S. A. A. (2021). The role of e-satisfaction, e-word of mouth and e-trust on repurchase intention of online shop. *International Journal of Data and Network Science, 5*(4), 593–600. <https://doi.org/10.5267/j.ijdns.2021.8.008> [Google Scholar](#)
- Purba, M. I., Simanjutak, D. C. Y., Malau, Y. N., Sholihat, W., & Ahmadi, E. A. (2021). The effect of digital marketing and e-commerce on financial performance and business sustainability of MSMEs during COVID-19 pandemic in Indonesia. *International Journal of Data and Network Science, 5*(3), 275–282. <https://doi.org/10.5267/j.ijdns.2021.6.006> [Google Scholar](#)
- Putra, P. O. H., & Santoso, H. B. (2020). Contextual factors and performance impact of e-business use in Indonesian small and medium enterprises (SMEs). *Heliyon, 6*. <https://doi.org/10.1016/j.heliyon.2020.e03568> [Google Scholar](#)
- Ragnedda, M., & Gladkova, A. (2020). Understanding digital inequalities in the Global South. In *Global Transformations in Media and Communication Research - A Palgrave and IAMCR Series* (pp. 17–30). Palgrave Macmillan, Cham. [Google Scholar](#)
- Sharma, S. K., & Sharma, M. (2019). Examining the role of trust and quality dimensions in the actual usage of mobile banking services: An empirical investigation. *International Journal of Information Management, 44*, 65–75. <https://doi.org/10.1016/j.ijinfomgt.2018.09.013> [Google Scholar](#)
- Shellyna, S., & Yuwono, W. (2022). Organum: Jurnal Saintifik Manajemen dan Akuntansi. *Jurnal Saintifik Manajemen Dan Akuntansi, 05*(02), 152–172. <https://doi.org/10.35138/organu> [Google Scholar](#)
- Tahar, A., Riyadh, H. A., Sofyani, H., & Purnomo, W. E. (2020). Perceived ease of use, perceived usefulness, perceived security and intention to use e-filing: The role of technology readiness. *Journal of Asian Finance, Economics and Business, 7*(9), 537–547. <https://doi.org/10.13106/JAFEB.2020.VOL7.NO9.537> [Google Scholar](#)
- Terzi, N. (2015). Financial Inclusion and Turkey. *Academic Journal of Interdisciplinary Studies*. <https://doi.org/10.5901/ajis.2015.v4n1s2p269> [Google Scholar](#)
- Thatsarani, U. S., & Jianguo, W. (2022). Do Digital Finance and the Technology Acceptance Model Strengthen Financial Inclusion and SME Performance? *Information (Switzerland), 13*(8). <https://doi.org/10.3390/info13080390> [Google Scholar](#)
- Yang, L., & Zhang, Y. (2020). Digital financial inclusion and sustainable growth of small and micro enterprises-evidence based on China's new third board market listed companies. *Sustainability (Switzerland), 12*(9). <https://doi.org/10.3390/su12093733> [Google Scholar](#)
- Ye, J., & Kulathunga, K. M. M. C. B. (2019). How does financial literacy promote sustainability in SMEs? A developing country perspective. *Sustainability (Switzerland), 11*(10). <https://doi.org/10.3390/su11102990> [Google Scholar](#)