

The Potential Application of Digitalization and Economic Growth of Micro, Small, and Medium Enterprises

Rahmat Ilyas

{mtd_82@yahoo.com}

Fakultas Syariah dan Ekonomi Islam
IAIN Syaikh Abdurrahman Siddik Bangka Belitung

Abstract The development of digital-based micro, small, and medium enterprises (MSMEs) has become one of the alternatives to rescue the MSME sector during the Covid-19 pandemic. Despite government efforts through the Ministry of Cooperatives and SMEs to promote digital transformation, the Covid-19 pandemic has given rise to a digital entrepreneurship ecosystem. The rapid advancement of technology has significantly influenced the evolution of payment systems in business transactions, especially in maintaining business relationships. Technological progress in payment systems has shifted the role of cash currency into more efficient and economical non-cash forms of payment. The income growth of MSMEs that have adopted digitalization has been quite impressive. Data analysis reveals that MSMEs implementing digitalization have experienced income growth, with 41.6% achieving a 10-25% increase, 28.5% achieving a 26-50% increase, and 23.1% achieving growth of over 50%, while only 6.7% have not experienced income growth.

Keywords: Digital-based MSMEs, COVID-19 pandemic, Income Growth

1 Introduction

The COVID-19 pandemic has become a global issue affecting numerous countries, including Indonesia.[1] The Indonesian government has continued to implement policies aimed at breaking the chain of COVID-19 transmission. These policies have had a significant multiplier effect on various aspects of people's lives, particularly impacting the economic sector. One of the sectors significantly affected is Micro, Small, and Medium Enterprises (MSMEs).[2]

The development of digital-based MSMEs has emerged as an alternative means to support the MSME sector during the COVID-19 pandemic.[3] Nevertheless, the government, through the Ministry of Cooperatives and Small and Medium Enterprises, has been actively promoting digital transformation. Consequently, the pandemic has fostered the growth of a digital entrepreneurial ecosystem. In this context, digital entrepreneurship refers to businesses that leverage advanced digital technology in their operations, including product and service marketing. In other words, any business that sells its products online, whether through websites or applications, falls within the realm of digital entrepreneurship. The use of e-commerce applications and the utilization of social media for digital marketing also fall under the scope of

digital entrepreneurship. Therefore, the future of digital entrepreneurship has the potential to significantly contribute to the strengthening of Indonesia's economy. Digital technology has fundamentally altered the characteristics and nature of business models, making them more digitally oriented.[4]

The rapid development of technology has had a profound impact on payment systems in business transactions, particularly in maintaining business relationships.[5] Payment systems, as a pivotal pillar in the stability of the financial system, have evolved from being primarily cash-based to digital payment systems, often referred to as electronic money (e-money).[6] Technological advancements in payment systems have shifted the role of physical currency as a means of payment toward more efficient and cost-effective non-cash payment methods. Non-cash payments are typically conducted not with physical currency but through bank-to-bank transfers or intra-bank transfers using internal bank networks. Additionally, non-cash payments can be made using cards as payment instruments, such as ATM cards, debit cards, and credit cards.[7]

The era of the industrial revolution 4.0 shows the increasing technology that affects the payment system with various applications used by the public as a means of non-cash payments. Digital payment applications that are now on the rise in the community include OVO, GO-PAY, and DANA.[8] The use of the application is to facilitate transactions in various activities, for example for online motorcycle taxi payments, food delivery, electricity/telephone bill payments, PDAM payments, and many more conveniences generated by digital payment applications.

The era of Industry 4.0 signifies the increasing influence of technology on payment systems, with a variety of applications being adopted by the public for non-cash transactions. Prominent digital payment applications that are currently prevalent in society include OVO, GO-PAY, and DANA. These applications serve the purpose of facilitating transactions in various activities, such as payment for ride-sharing services, food delivery, electricity and telephone bill payments, water utility bill payments, and many other conveniences offered by digital payment applications.[9]

Digital payment systems offer a means of making payments for the purchase of goods and services over the internet. Unlike traditional payment systems, customers transmit all payment-related data to the seller via the internet, eliminating the need for extensive external interactions between customers and sellers (such as sending invoices via email or fax confirmations). Currently, there are more than 100 electronic payment systems in use.[10] The era of Industry 4.0 signifies the increasing influence of technology on payment systems, with a variety of applications being adopted by the public for non-cash transactions. Prominent digital payment applications that are currently prevalent in society include OVO, GO-PAY, and DANA. These applications serve the purpose of facilitating transactions in various activities, such as payment for ride-sharing services, food delivery, electricity and telephone bill payments, water utility bill payments, and many other conveniences offered by digital payment applications. Digital payment systems offer a means of making payments for the purchase of goods and services over the internet. Unlike traditional payment systems, customers transmit all payment-related data to the seller via the internet, eliminating the need for extensive external interactions between customers and sellers (such as sending invoices via email or fax confirmations). Currently, there are more than 100 electronic payment systems in use.

Digital payment systems represent a form of payment mechanism that is conducted online via the internet with the purpose of consumers making product purchases. The proliferation of digital payment systems can be attributed to the numerous benefits they offer, both to consumers and producers. Furthermore, the growing prominence of e-commerce has incentivized people to engage in online transactions. However, despite the increasing number of e-commerce websites in Indonesia, it can generally be observed that 99% of consumers still rely on cash payments.

2 Method

This type of research is quantitative descriptive research, which aims to present solutions to current problems based on data, and analyze, and interpret them. In this study, the researcher attempts to explain how the potential application of digitalization affects the growth of Micro, Small, and Medium Enterprises (UMKM).[11] The research was conducted in the provinces of Kepulauan Bangka Belitung and Yogyakarta. The variables used in this research include digitalization adoption, UMKM income growth, consumer growth, and employee growth in UMKM in Kepulauan Bangka Belitung and Yogyakarta. The study is conducted among UMKM stakeholders in these provinces, with a sample size determined using the Slovin formula at a critical value of 5%, resulting in a sample size of 389. Data collection is carried out through questionnaires, while data analysis includes validity tests, reliability tests, classical assumption tests, and hypothesis testing.

3 Result and Discussion

3.1 Application of Digitalization in Micro, Small, and Medium Enterprises (UMKM)

The study of Islamic economics is currently receiving serious attention, although it is more focused on Islamic finance and banking. In Indonesia, this theme is a common choice for seminars, workshops, symposiums, academic meetings, and even academic programs at various universities, primarily concentrating on these two fields. However, the same level of attention is not typically given to the field of Islamic economic law, perhaps due to the assumption that the scope of this field is very narrow. In reality, classical Islamic commercial jurisprudence comprises numerous themes and chapters, and given the increasing complexity of contemporary times, research in the field of Islamic economic law should indeed receive more attention.[12]

Changes in consumer preferences towards online shopping methods and the increasing number of internet users have opened up new market opportunities in the digital era. Micro, Small, and Medium Enterprises (UMKM) need to be responsive to this trend by actively engaging with the digital ecosystem and strengthening their presence on various platforms.[13] The research results indicate the level of digitalization adoption in UMKM, as shown in the following fig.:

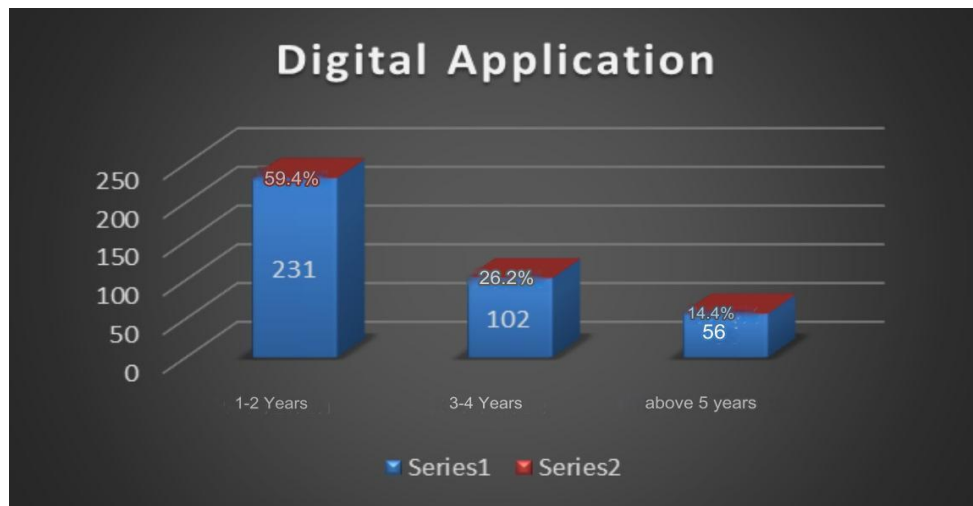


Fig. 1 Application of Digitalization in UMKM

Based on the graph above, it is evident that the application of digitalization in UMKM in the provinces of Bangka Belitung and Yogyakarta is quite substantial. This can be seen from the data, where out of the respondents surveyed, 231 or 59.5% have implemented digitalization within the past 1-2 years, while 102 or 26.3% have adopted digitalization over a period of 3-4 years, and 56 UMKM, equivalent to 14.4%, have been utilizing digitalization for over 5 years. From the data presented above, it can be concluded that the implementation of digitalization among UMKM stakeholders has been predominantly within the last two years. The data suggests that more than 50% of UMKM participants have adopted digitalization within the past 1-2 years.

The exceptionally high adoption of digitalization, as observed by the researcher, can be traced back to the onset of the coronavirus pandemic, which affected nearly every country, including Indonesia. In response, the government enforced restrictions on offline or face-to-face activities to minimize the spread of the virus. In light of these circumstances, UMKM stakeholders in the provinces of Bangka Belitung and Yogyakarta were prompted to transition to digitalization to continue marketing and selling their products.

3.2 Growth in Consumer Numbers

The growth in income for Micro, Small, and Medium Enterprises (UMKM) in the provinces of Bangka Belitung and Yogyakarta can be observed in the following fig. 2:



Figure 2: Growth in UMKM Income

From the graph above, it is evident that UMKMs that have adopted digitalization have experienced favorable income growth. Data processing reveals that UMKMs implementing digitalization have shown income growth of 10-25% in 41.6% of cases, income growth of 26-50% in 28.5% of cases, and income growth exceeding 50% in 23.1% of cases. Only 6.7% did not experience income growth. Growth in Consumer Numbers for figure 3:

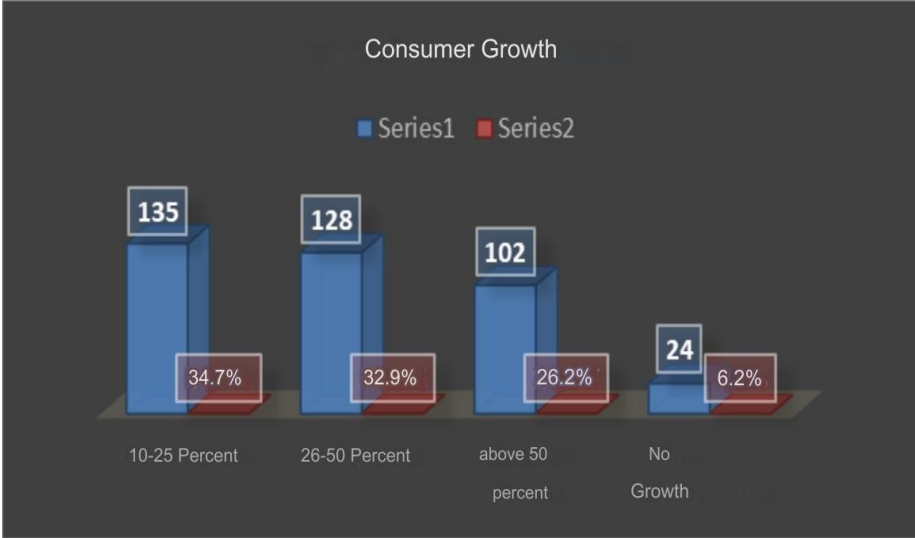


Figure 3: Growth in UMKM Consumer Number

From the graph above, it is clear that UMKMs that have adopted digitalization have experienced significant growth in the number of consumers. Data processing indicates that UMKMs implementing digitalization have seen consumer growth of 10-25% in 34.7% of cases, consumer

growth of 26-50% in 32.9% of cases, and consumer growth exceeding 50% in 26.2% of cases. Only 6.2% did not experience an increase in the number of consumers.

3.3 Growth in the Number of Employees

The growth in the number of employees in Micro, Small, and Medium Enterprises (UMKM) in the provinces of Bangka Belitung and Yogyakarta can be observed in the following figure 4:

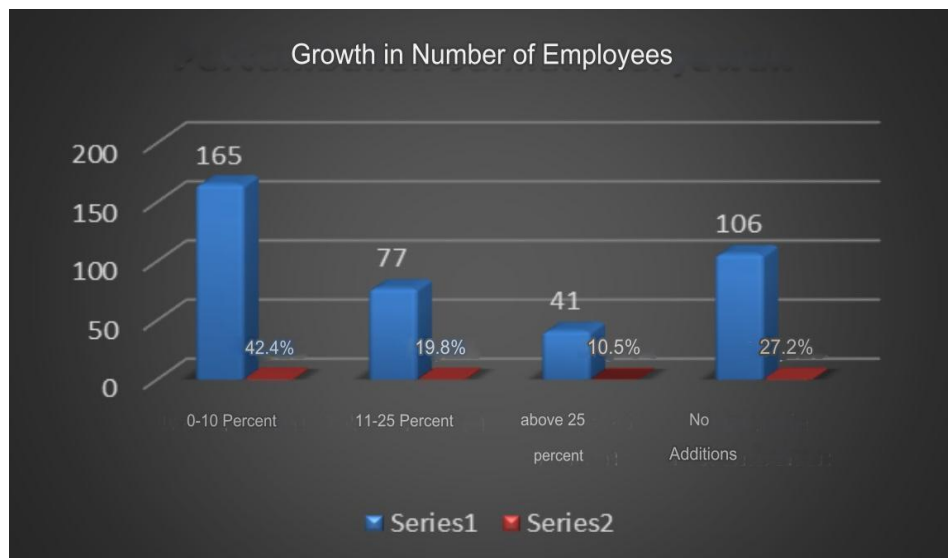


Figure 4. Growth in the Number of UMKM Employees

From the graph above, it is evident that UMKMs that have implemented digitalization have experienced substantial growth in the number of employees. Data processing reveals that UMKMs adopting digitalization have shown employee growth of 0-10% in 42.2% of cases, employee growth of 11-25% in 19.8% of cases, and employee growth exceeding 25% in 10.5% of cases. Only 27.2% did not experience growth in the number of employees.

4 Conclusion

The implementation of digitalization in UMKMs in the provinces of Bangka Belitung and Yogyakarta has been quite successful. This is evident from the respondents surveyed, with 231 or 59.5% having adopted digitalization in the past 1-2 years, while 102 or 26.3% have implemented digitalization for 3-4 years, and 56 UMKMs, or 14.4%, have been utilizing digitalization for over 5 years. UMKMs that have implemented digitalization have experienced positive income growth. Data processing shows that these UMKMs have experienced income growth of 10-25% in 41.6% of cases, income growth of 26-50% in 28.5% of cases, and income growth exceeding 50% in 23.1% of cases. Only 6.7% did not experience income growth. Furthermore, UMKMs that have implemented digitalization have seen growth in the number of

consumers, with consumer growth of 10-25% in 34.7% of cases, consumer growth of 26-50% in 32.9% of cases, and consumer growth exceeding 50% in 26.2% of cases. Only 6.2% did not experience an increase in the number of consumers.

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