

# The use of the digital economy for SMEs during COVID-19 pandemic in Tanjungpinang city Indonesia

Dodi Dermawan<sup>1</sup>, Abdul Jalal<sup>2</sup>, Bunga Paramita<sup>3</sup>, Catri Jintar<sup>4</sup>

{[dodydermawan@gmail.com](mailto:dodydermawan@gmail.com)<sup>1</sup>, [abduljalal597@gmail.com](mailto:abduljalal597@gmail.com)<sup>2</sup>, [bungaparamita1@gmail.com](mailto:bungaparamita1@gmail.com)<sup>3</sup>}

<sup>1,2,3,4</sup>Faculty of Economics Raja Ali Haji Maritime University  
Tanjungpinang, Indonesia

**Abstract.** The impact of the Covid-19 pandemic has changed the order and behavior of people in transacting goods. . This study examines how the digital economy is a solution for the development of creative economy SMEs in Tanjungpinang City in the face of the COVID-19 pandemic. Then identifies the pattern of digital use by SMEs, both obstacles and opportunities. This study uses qualitative analysis with in-depth interviews with 10 key informants who are creative economy SMEs in Tanjungpinang. the results of this study found that the use of the digital economy can improve their business and survive the covid 19 pandemic. digital literacy for MSME actors is still very low because they learn on their own online. the role of government and universities is needed to improve digital literacy and the provision of massive free wifi network facilities.

**Keywords:** Digital Economy, SMEs, Covid-19.

## 1 Introduction

The condition of the Covid-19 pandemic has put pressure and a very heavy impact on the global economy. Various restrictions on people's mobility have slowed the wheels of the economy, which in the end resulted in a contraction or minus of economic growth throughout the world. This can be seen from the negative 3.3% world economic growth in 2020 [1]. Likewise, Indonesia experienced the same thing, where economic growth in 2020 experienced a negative contraction when compared to 2019 [2]. The worst economic contraction occurred in the second quarter which reached a negative 5.32% [3]

The impact of the Covid-19, where people prefer to shop online and reduce direct contact to reduce the risk of contracting the virus. This condition is also supported by the rapid development of information technology and the increasing use of the internet by the public as well as the increasing number of online shopping applications. Thus, the business world that has taken advantage of digital platforms can take advantage of the momentum of changing people's consumption patterns to be able to rise SMEs in Indonesia in general and Tanjungpinang in particular. Research conducted by Bank Indonesia states that 12.5% of MSMEs that have been able to adapt during the pandemic by utilizing digital platforms have not experienced negative impacts due to Covid-19 [4].

Based on the above, digital economy is important in order to move the economy, especially in the MSME sector, where the value of the digital economy in Indonesia is currently estimated at more than USD 70 billion, with 70% of which is contributed by e-commerce [5]. The digital

ecosystem itself is a source of information technology that is interrelated and can be useful as a unified whole consisting of various parties such as consumers, suppliers, data providers, trading partners, and many more. According to Bukht & Heeks, [6] in the digital economy, information is communicated through digital networks and transmitted at the speed of light, where information can be combined, stored, and retrieved instantly from all over the world, ultimately providing instant access to the wealth of information recorded by human civilization.

The development of the digital economy in the Riau Islands Province in the use of e-commerce according to BPS data in 2021 [7], MSME players who use e-commerce are 33.88 percent. The perpetrators of e-commerce users are those aged 35-44 years as much as 42.66%. The city of Tanjungpinang, the capital of the Riau Islands Province, has also experienced a rapid increase in the use of e-commerce. According to BPS data, the majority of e-commerce users are entrepreneurs with a high school background 66%. Since the COVID-19 pandemic, the use of e-commerce has increased.

The Economy digital has resilience, so it can survive and avoid economic contractions and face severe economic pressures during a recession, and can continue to move forward and make a real contribution to economic growth. According to a report released by Sirclo and Ravenry in 2020 [8], Indonesia's digital economy has grown almost fivefold from US\$ 8 billion in 2015 to US\$ 40 billion in 2019. The growth of the digital economy is followed by digital development infrastructure and the penetration of the digital rate into the digital economy. throughout Indonesia. The cost of developing digital infrastructure increased from US\$ 204 million in 2016 to US\$ 1014.3 million in 2020. Then Sirclo [8] stated that the impact of the COVID-19 Pandemic has changed consumer behavior and the development of e-commerce. An estimated 12 million new e-commerce users have been added since the pandemic took place. This causes research on the role of the digital economy to be very important and relevant to the current conditions.

The digital economy plays a central role during the COVID-19 Pandemic, especially in economic activities. The digital economy has resilience, so it can survive and avoid economic contractions and face severe economic pressures during a recession, and can continue to move forward and make a real contribution to economic growth. This causes research on the role of the digital economy to be very important and relevant to the current conditions faced. This study aims to examine the use of the digital economy, especially in e-commerce for SMEs actors in the creative economy sector of the city of Tanjungpinang in the era of the covid 19 pandemic. The problems faced by SMEs are the use of applications, media, e-money, infrastructure and skills in e-commerce. The results of this study are expected to provide further mapping and sustainability of research related to the use of e-commerce in Tanjungpinang City.

## **2 Literature Review**

### **2.1 Digital Economy**

The digital economy was first introduced by Tapscott [9]. In the digital economy has its own uniqueness, it can be seen from the One of the digital economic activities is digital marketing. Digital marketing is marketing using the application of digital technology.

Meanwhile, the concept of the digital economy according to Zimmerman [10], is a concept that is often used to explain the global impact of the rapid development of Information and Communication Technology that has impact on socio-economic conditions. This concept becomes a view of the interaction between the development of innovation and technological progress that has an impact on macro and micro economics. Sectors affected include goods and services when their development, production, sale, or supply depends on the extent to which digital technology can reach.

In the digital economy, companies offer their services according to certain services according to specific requests or special offers, offerings have been characterized as personal and individual or private offers [11]. One of the digital economic activities is digital marketing. Digital marketing is marketing using the application of digital technology. One form of digital marketing using electronic media or the internet is internet marketing (e-marketing). E-Marketing is a marketing process that uses electronic communication technology, especially the internet. The role of digital marketing strategy can be important in keeping up with digital technology developments and developing plans to attract consumers and direct them to a mix of electronic communication and traditional communication [12].

## **2.2 Creative Industry SMEs**

The Industries creative from the UK which was initiated by the British Minister of Manpower Chris Smith and the UK Department for Culture, Media and Sport (DCMS) published the Creative Industries Mapping Document [13]. Creative industries are 'those industries which have their origin in individual creativity, skill and talent which have a potential for job and wealth creation through the generation and exploitation of intellectual property [14]. DCMS Creativity is everywhere in an industry which includes copyright and advertising. The creative industry is present along with the market needs to get segment access from entrepreneurs in order to reach a wider segmentation through the internet network.

In Indonesia, the Creative Industry is divided into 17 categories [14] namely culinary, Game Development, Architecture, Interior Design, Music, Fine Arts, Product Design, Fashion, Film-Video Animation, Photography, Visual Communication Design, Television and Radio, Crafts , Advertising, Performing Arts, Publishing, Applications. As much as 30% of the creative industry in the culinary sector has a significant contribution and has the potential to be higher in producing the creative economy and Indonesian tourism. A variety of culinary and taste variations of Indonesian menus provide their own taste for culinary lovers in domestic and international.

## **3 Methodology**

An interpretive qualitative approach is used in this study. This method was chosen because of its suitability for the purpose of research to explore the phenomenon of the Digital Economy that occurs in SMEs in Tanjungpinang. This study uses the cluster incidental sampling method on 10 key informants on creative economy SMEs in Tanjungpinang City.

The unit of analysis in this study is about what and how to use the digital economy for creative economy SMEs in Tanjungpinang during the covid 19 pandemic. Using an interactive model to analyze data, where the activities are divided into several parts, namely: data collection, data reduction, data presentation, and drawing conclusions. When testing the validity of the data using triangulation of sources and techniques.

Key informant profiles can be seen in the table below:

**Table 1.** Key Informants Profile

No	Name	Age	Types of business	Education
1	Ekaviyani	37	Culinary	Senior High School
2	Angelina	40	Fashion	Senior High School
3	Nurleni	27	Culinary	Undergraduate School
4	Radah	31	Handcraft	Undergraduate School
5	Febri Kurniawan	36	Culinary	Undergraduate School
6	Basuki	42	Handcraft	Senior High School
7	Yesti ulan	35	Music Show	Undergraduate School
8	Zahani	46	Culinary	Senior High School
9	Nurhafiza Farhana	24	Handcraft	Undergraduate School
10	Depri	29	Culinary	Undergraduate School

From the table above, it can be seen that the age of the informants is still dominated by the age of 30-40 years. Pretty good age as a business owner. Meanwhile, in terms of education, the majority of respondents have a bachelor's degree. This shows that the informants have good competence in business development.

## 4 Result

### 4.1 The Economy Digital

The economy digital for creative economy SMEs in Tanjungpinang has made a positive contribution to their business. This can be seen from the increase in their turnover and sales during the pandemic. As explained by Zahani

*"My sales turnover has increased since using Facebook, WhatsApps and Instagram".*

Febri Kurniawan said:

*“Even during the COVID-19 pandemic, my sales continued to increase because many consumers bought online and used courier services”.*

Based on the results of in-depth interviews, all informants do digital marketing to promote and sell their products. Online media that are always used are Instagram, Facebook, WhatsApp and Youtube. This can be explained by Nurhaliza

*“I use social media to help promote my business, such as Instagram, WhatsApp and Facebook”.*

The use of digital marketing also provides convenience and efficiency for MSME entrepreneurs in the creative economy to market their products. Depri said:

*“Yes, it's clear that we use social media because through social media we just sit at work to market our products and don't have to worry about spreading brochures on the streets.”*

Yesti Ulan Said:

*“The use of digital marketing has become a necessity today, the products I offer will be easier with online media such as YouTube, Instagram and WhatsApp. I offer products using photos and videos shared via WhatsApps, Facebook, and Instagram, and sometimes I live stream on Youtube to offer my products”.*

#### **4.2 Digital Literacy for SMEs**

SMEs in Tanjungpinang have not received structured digital marketing learning. They learn a lot by self-taught by using the internet. Then they learn as a community in online media. This can be explained by Nurleni:

*“In marketing products in online media, I learn a lot from youtube and facebook media”.*

Angelina Said:

*“In making content I'm still not good at it, I do it simply and really need more in-depth training”*

Basuki Said:

*“I learned digital marketing through online communities in WhatsApp and Telegram groups”*

#### **4.3 Use of E-money for SMEs**

In conducting digital marketing for transactions, the majority of MSME actors in Tanjungpinang City still use cash or Cash on Delivery (CoD). The lack of use of e-money is more due to the low knowledge and trust of consumers and MSME actors, even though some of the use of digital wallets through QR scans has been carried out. This is explained by Angelina:

*"I Use COD for Transaction and I still don't understand the use of Qris and digital money"*

Then Basuki also said;

*"I'm still not safe when transacting with digital money because I've been scammed suddenly my balance is reduced".*

Radah Said:

*"I use Qris, Bank transfer and Cash for transactions for each customer, but for use many customers prefer to use Cash and some use Qris"*

Although there are several SME players who already have facilities in digital payments, SME customers in Tanjungpinang City still use cash payments. Meanwhile, some SMEs do not use digital payments due to ignorance and fear of fraud.

#### **4.4 Digital Infrastructure**

Digital infrastructure facilities in the city of Tanjungpinang such as signal strength and signal coverage, the majority of key informants said it was quite good, only in certain areas the signal was lost and not good, while free wifi providers from the government were still very few. This is explained by Ekiviyani:

*"I use the internet through a smartphone, sometimes I lose my signal. When I'm live or marketing products in the online market, this is very detrimental to us as provider consumers"*

Depri Said;

*"We hope that the government can provide places for free wifi services so that the use of the digital economy will increase".*

Internet usage in Tanjungpinang City does not have a uniform provider signal. For areas that are far from markets or shops, the signal is not full and if bad weather occurs, the internet will experience interference, and this will have an impact on SME actors.

## **5 Discussion**

The use of digital marketing can expand the market for SMEs in Tanjungpinang City and reduce promotional cost. This is in accordance with research conducted by Mokhtar [15]. The social restrictions imposed by the Tanjungpinang city government gave changes to the people of Tanjungpinang to shop using smartphones. This also indicates that people have started to believe and are interested and SMEs have also grown a good product image to the people of Tanjungpinang City. Social media that are often used by MSME actors are Facebook, Instagram, Whatsapp, Telegram and Line, some of these platforms are often used by consumers. Besides being easy to use.

The government's role in advancing the use of the digital economy. Many people still do not understand the regulations and security in transactions using the digital economy. Even though the COVID-19 pandemic will end, the use of the digital economy will continue to increase. McKinsey [16] further states that to win and capture opportunities in the digital era, governments and the business sector must act innovatively in order to create value in three dimensions, namely: 1) Products and services. Innovation to meet unmet or partially fulfilled customer needs, by creating new products or services using digital technology; 2) Business models. Transformation of customer experience, delivery model and value proposition, made possible by digital technology; 3) Business processes. Improvements along the value chain, using digital technology to increase efficiency, both in terms of process and time.

SMEs in the creative industry sector in Tanjungpinang have the ability to manage businesses using digital marketing. This can be seen in the increase in turnover during the COVID-19 pandemic by using digital marketing. However, the ability to manage digital marketing is still very limited, this is because many SMEs actors have not received digital marketing management training from the government. MSME actors learn digital marketing through self-taught on YouTube and websites. The training obtained for MSME actors will increase intellectual capital in the sustainability of their business. The high intellectual capital owned by creative industry players will be able to create sales volume, customer growth, and high revenue growth [17]. According to Zehri et al. [18] prove that there is a big impact of intellectual capital on company performance, especially marketing performance. The Tanjungpinang City Government has a responsibility to improve digital literacy for SMEs actors in the creative economy sector. The government can cooperate with higher education institutions as partners to assist and develop MSMEs in Tanjungpinang City.

In conducting transactions in digital marketing, SME actors still use used Collect/Cash on Delivery (COD) and cash payments. Meanwhile, payments using digital money are still very limited. This limitation is due to the low level of digital literacy by SMEs, and they are afraid of fraud. Likewise, consumers who shop on digital marketing still really like COD or see the goods first and then pay if the goods are as expected. The number of products offered in online media causes some SMEs to offer products that are not in accordance with the virtual or the application so that many consumers feel safer when shopping using COD. One of the uses of digital money is QR Code Payment, which is a mechanism for transferring non-cash payments by simply scanning the QR code from merchants and making payment transfers [19].

The QR code used in Indonesia is QRIS (QR Code Indonesia Standard), which is a payment system based on a shared delivery channel that is used to standardize payment transactions using QR codes. This system was pioneered by Bank Indonesia and the Indonesian Payment System Association (ASPI). The EMV Co International Standard (European Visa MasterCard) is used as the basic standard in the preparation of QRIS. The form of QRIS that is available at the SME traders' shops in Tanjungpinang is a static form (in the form of a sticker). The placement of QRIS sticker is placed on the wall of the character, the cashier's table, and the glass set that can be scanned by the customer. Customers who make payments with QRIS must have an e-wallet application on their smartphone. The customers who use QRIS are dominated by young people, online drivers, and some parents. Some SME traders have implemented this payment system in their stores, it's just that its use is not carried out every day, but with this system, it does not create difficulties but provides convenience for traders in stores.

To increase the use of the digital economy for creative economy SMEs in Tanjungpinang City, and the use of e-money in transactions in the digital economy, it is necessary to increase digital literacy for stakeholders. Digital literacy refers to the skills needed to navigate network technologies and interpret the meaning of digital messages [20]. Digital literacy is not only limited to the use of various sources of information sought with a specific purpose. In digital literacy, it includes elements of creation, access and interpretation of digital media [21]. For this reason, digital transformation is needed for all stakeholders, especially SMEs in Tanjungpinang City. Digital transformation is used to maximize innovation opportunities, new business models and processes, and smart products and services. Furthermore, the digital economy allows regional businesses to move away from local and global, in line with the long-term trend towards market liberalization and reduction of trade barriers [22]. For MSMEs in Tanjungpinang city, connectivity and cloud are very important because it allows them to collaborate and accessing resources from any location with a secure network [23]. This provides time and energy efficiency for MSME players so that they can concentrate on a larger market because increasing connectivity access is the key to developing a digital economy [24].

Another obstacle that is often experienced by SMEs in Tanjungpinang City is the uneven distribution of smartphone signals in certain areas. The Tanjungpinang City Government must also provide free wifi service facilities and add Base Transceiver Stations (BTS) for providers so that the signal becomes smoother. Research by Damuri et al. [25] using a district and village-level data project that a 10% increase in internet network coverage would correlate with a 0.92% increase in gross regional domestic product (GDP). The digital platform will reduce transaction costs and increase profits. [26]. the provision of free wifi services by the government will be able to increase the role of using the digital economy for the community. With the increase in digital economy users in an area, it will certainly increase the work productivity of the people in the region.

## **6 Conclusion and suggestion**

The use of the digital economy in the era of the COVID-19 pandemic has provided positive changes for creative economy SME actors in Tanjungpinang. Digital transformation for merchants and consumers has occurred until the COVID-19 pandemic ends, the digital economy will continue to grow. The use of digital economic media for SMEs is still dominated by free applications such as Instagram, Facebook, Whatsapp and YouTube because the demand for these applications is still high. Then transactions made by SMEs still use cash on delivery (COD) rather than e-money. SMEs players acquire digital knowledge through self-study. Free internet area is still very limited in the city of Tanjungpinang Indonesia.

For this reason, serious policies are needed from the government in improving the digital economy with supporting regulations such as providing training and socialization related to the use of the digital economy for SMEs. Furthermore, the government needs to ensure data security on the use of e-money and ease of registration, business licensing for SMEs. The Tanjungpinang City Government needs to add space and public areas for free internet so that the use of the digital economy becomes massive

Associations and collaborations between relevant stakeholders are needed to enlarge the digital economy ecosystem. This is done by increasing the number of people who use the internet for



the needs of economic transactions, both consumers and business actors, especially SMEs. The government needs to collaborate with universities to improve digital literacy for the community, especially SMEs. then ensure that the available internet network will be used optimally by all its citizens and the free wifi area will increase. The digital divide needs to be addressed. The digital economy ecosystem needs to ensure the affordability of internet data packages and digital devices, such as smartphones.

## References

- [1] IMF. 2021. World Economic Outlook: Managing Divergent Recoveries, Washington DC:
- [2] BPS,2021. Ekonomi-indonesia Turun Sebesar 2.07 Percent (c-t-c)", February 5, 2021, <https://www.bps.go.id/pressrelease/2021/02/05/1811/Ekonomi-indonesia-2020-turunsebesar-2-07-percent--c-to-c-.html>, accessed 2 March 2022
- [3] Mediaindonesia, 2020. "Ekonomi Indonesia Triwulan II 2020 Minus 5,32 persen", 5 Agustus 2020, <https://mediaindonesia.com/ekonomi/334110/ekonomiindonesia-triwulan-ii-2020-minus-532>, accessed 2 March 2022.
- [4] Katadata, 2021. "Hanya 12,5 persen UMKM di Indonesia yang Kebal dari Pandemi Covid-19", 26 Maret 2021, <https://katadata.co.id/agustiyanti/finansial/605d9f635fdf7/hanya-12-5-umkm-di-indonesia-yang-kebaldari-pandemi-covid-19>, accessed 2 March 2022.
- [5] "Ekonomi Digital dan Hijau", Kompas, 7 Desember 2021, hal. 6.
- [6] Bukht, R., Heeks., (2017), Defining, Conceptualising and Measuring the Digital Economy. Manchester Centre for Development Informatics Working Paper 68.
- [7] BPS, 2021. Statistik E-commerce 2021 , ISBN: 978-602-438-443-2 Publication Number: 06300.2117, BPS , 2021.
- [8] Sirclo and Reverly, (2020), Navigating Indonesia's E-Commerce: COVID-19 Impact & The Rise of Social Commerce, Laporan Sirclo Tahun 2020
- [9] Tapscott, Don. (1997). The digital economy : promise and peril in the age of networked intelligence. New York: McGraw-Hill. ISBN 0-07-063342-8.
- [10] Zimmermann, Hans-Dieter. (2000), "Understanding the Digital Economy: Challengers for New Business Models". AMCIS 2000 Proceedings. Paper 402
- [11] Bloch, M., Pigneur, Y dan Sergev, A. (2006). On the road of electronic-d Commerce- A Business Value Framework, gaining competitive advantage and some research issues. Working paper University of Laussane, Laussane Swiss.
- [12] Chaffey D, Ellis-Chadwick F, Johnston K and Mayer R 2009 Internet marketing: strategy, implementation and practice 4th ed. (Harlow: Pearson education)
- [13] Department for Culture, Media and Sports (DCMS). Creative Industries Mapping Document. London: DCMS, 1998. Creative Industries Task Force Report. London: DCMS, 1998.
- [14] Kemenparekraf, T. (2014). *Ekonomi Kreatif : Kekuatan Baru Indonesia Menuju 2025*. Kemenparekraf RI
- [15] Mokhtar, N. F. (2015). Internet Marketing Adoption by Small Business Enterprises in Malaysia. International Journal of Business and Social Science.
- [16] Mckinsey&Company, (2016), Unlocking Indonesia's Digital Opportunity, McKinsey Indonesia Office October 2016.
- [17] Kalkan, Adnan, Özlem Çetinkaya Bozkurt and Mutlu Arman. (2014). The Impacts of Intellectual Capital, Innovation and Organizational Strategy on Firm Performance, 10th International Strategic Management Conference, Procedia - Social and Behavioral Science, pp. 700 – 707.
- [18] Zehri, Chokri, Asma Abdelbaki, Najla Bouabdellah, 2012, How Intellectual Capital Affects A Firm's Performance?, Australian Journal of Business and Management Research, Vol.2, No.08, pp.24-31.
- [19] Sagayarani, D. (2018). Digital Payments in India 2018-2019, IOSR Journal of Business and Management (IOSRJBM):28-33

- [20] Moreno-Morilla, C., Guzmán-Simón, F., & García-Jiménez, E. (2021). Digital and information literacy inside and outside Spanish primary education schools. *Learning, Culture and Social Interaction*, 28, 100455. <https://doi.org/10.1016/j.lcsi.2020.100455>
- [21] Szymkowiak, A., Melović, B., Dabić, M., Jeganathan, K., & Kundi, G. S. (2021). Information technology and Gen Z: The role of teachers, the internet, and technology in the education of young people. *Technology in Society*, 65, 101565. <https://doi.org/10.1016/j.techsoc.2021.101565>
- [22] Habibi, F., & Zabardast, M. A. (2020). Digitalization, education and economic growth: A comparative analysis of Middle East and OECD countries. *Technology in Society*, 63, 101370. <https://doi.org/10.1016/j.techsoc.2020.101370>
- [23] Fossen, F. M., & Sorgner, A. (2021). Digitalization of work and entry into entrepreneurship. *Journal of Business Research*, 125, 548–563. <https://doi.org/10.1016/j.jbusres.2019.09.019>
- [24] Leong, C., Tan, F. T. C., Tan, B., & Faisal, F. (2020). The emancipatory potential of digital entrepreneurship: A study of financial technology-driven inclusive growth. *Information & Management*, 103384. <https://doi.org/10.1016/j.im.2020.103384>
- [25] Damuri, Yose Rizal, Vidhyandika Djati Perkasa, Fajar B. Hirawan, dan Dandy Rafitrandi (2017) 'Rich Interactive Application (RIA) in Indonesia: Value to the Society and the Importance of the Enabling Regulatory Environment.' Jakarta: Centre for Strategic and International Studies [daring] [18 September 2020].
- [26] Dermawan, D., Transaction Costs on Online Transportation Partnership: An Empirical Study in Malang, Indonesia E3S Web Conf., 324 (2021) 07001 DOI: <https://doi.org/10.1051/e3sconf/202132407001>