

## Digital-Based Economic Recovery Program for Micro-enterprises in Indonesia

Febrianur I. F. S. Putra\*, Herry Subagyo, Risanda A. Budiantoro, Awanis L. Haziroh  
Department of Management, Faculty of Economics and Business, Universitas Dian Nuswantoro, Indonesia  
\*corresponding author e-mail : febrianuribnu@gmail.com

---

### Article Info

#### Keywords:

Adoption model;  
Digitalization;  
Economic recovery;  
Financial inclusion;  
Micro-enterprises

#### JEL Classification:

M21, M31, O14, O32, O33

#### DOI:

10.33830/jom.v18i1.1763.2022

---

### Article History

Received : June 23, 2021

Accepted : May 30, 2022

Publish : June 15, 2022

---

### Abstract

**Purpose** - The recent Covid-19 pandemic has stagnated the majority of economic sectors, especially Micro-enterprises. This is observed in the inability of most Micro-enterprises to develop during the period, thereby, leading to bankruptcy and a change in sales strategy through a digitalization scheme to obtain more comprehensive marketing access. Therefore, this research was conducted to initiate the ideal e-marketing adoption model for small micro-enterprises.

**Methodology** - This research uses qualitative exploration approach. The samples were selected using snowball sampling technique by moving gradually from one individual to another. Moreover, the analyzed through data collection, reduction, presentation, and conclusion.

**Findings** - The results showed that there are two categories of digital business programs which include startup training and development as well as scale-up training and development. The main contribution of the implementation of the Digital-Based Economic Recovery Program is facilitating the micro-enterprises in Indonesia accessibility to become participants in sustainable empowerment, increasing the micro-enterprises in Indonesia business performance capacity, and encouraging the micro-enterprises competitiveness increased to penetrate the suitable international market standards.

**Originality** - The program is expected to serve as a role model based on mutual relations to ensure optimal empowerment of Micro-enterprises supported by the use of appropriate technology.

---

## 1. Introduction

The Delta's covid-19 pandemic has continued to spread to all countries of the world, including Indonesia, starting from December 2019. The latest urgency, the Indonesia Government's main contribution through the national economic recovery unit, is to facilitate micro-enterprises with sluggish business performance to recover and increase competitiveness on a national and international scales. The Delta variant of the Covid-19 virus has a significant impact on consumer shopping transformation behavior by purchasing products on digital platforms that it can access through smartphones. It is also important to note that the inactive cases in East Java reached 60,514 cases or 10.5 percent and the PSBB policy was implemented as an anticipatory

step to break the chain of the spread but with consequences such as its direct effect on the performance of the macroeconomy (Worldometers, 2020). Meanwhile, the micro-enterprises often experience different obstacles and difficulties even under normal conditions which include a decrease in purchasing power, narrow market share, and other challenges associated with the packaging process and strategic partnerships, especially in the post-Covid-19 pandemic. This shows that some adjustments are needed in business units' operations to ensure survival in intense industrial competition on a national and international scales (Wang & Le, 2018).

The most important thing normally considered during an endemic case is the availability of personal sanitation plates and protective equipment for the increasingly limited number of medical personnel, and this led to several donations and fundraising activities from different crowdfunding platforms (Imleesh et al., 2017). Moreover, the buying behavior of consumers changed significantly during the period with most observed to be increasingly using e-commerce as an alternative shopping solution. This means the micro-enterprises need to adapt to these conditions to survive in the industry, increase competitiveness, and avoid bankruptcy but they have challenges understanding and applying the new marketing system which involves utilizing technology to market their products (Gamage et al., 2020). This e-marketing is a strategic approach to complement traditional marketing and business strategies to assist micro-enterprises to compete effectively in the market by reducing operational marketing costs and expanding their market share through easy access to data and broader market coverage. This alternative solution is expected to have a significant impact on their business continuity. Therefore, this present research focuses on exploring the process of adopting e-marketing in Micro-enterprises to counter the business impact of Covid-19 (Adebisi & Bakare, 2019).

Problems faced by micro-enterprises in Covid-19 pandemic era includes limited access to loans, difficulties in developing creative and innovative marketing programs, and limited access to advanced technology to generate high engagement. If micro-enterprises are not able to adapt effectively and efficiently, then the most substantial possibility is bankruptcy. This situation impacts on market confidence level and industry's competitiveness, so the involvement of digital-based empowerment programs for micro-enterprises can be accomplished by implementing competitive strategies that are superior, creative, and minimum operational costs. In comparison, they can use another operational costs to increase business capacity in obtaining access to loans and latest technology to compete sustainably in the digital industry (Maksum et al., 2020). Implementing the digitization program as an alternative strategy has become a main requirement for any companies, so micro-enterprises are not out of date (Qashou & Saleh, 2018) as indicated by the need to have access to technology in its integration and this is considered to be one of the biggest obstacles for these business entities (Alves et al., 2016).

Khan, Tufail, and Ali (2021) identified a significant positive relationship between innovation and firm performance in the manufacturing industry in Turkey due to the ability of the innovation to provide a higher market share, total sales, and exports. It is, however, important to note that the innovation performance of most micro-enterprises tends to be constant by focusing on the comfort zone without any reference to new product sales, market share, product launches, and percentage in total sales.

Sawangchi et al. (2018) showed that the most effective core strategies and support measures for micro-enterprises include (1) strengthening their difference to attract consumers, (2) encouraging cluster integration, micro-enterprises, accommodation, and food service, (3) adjusting the source of funds in the system to support economic growth, and (4) promoting SME entrepreneurs to the international market. Most of these businesses normally apply a cost leadership strategy to obtain a high-profit level but this method focuses on maintaining a customer

base and specific services designed to ensure a long-term partnership. Meanwhile, the potential and activities of a business are usually affected by some environmental factors and this is the reason small and medium enterprises often have problems expanding their market share due to limited capital. It is important to note that local government has not been efficient in balancing the activities of resource users with those of Micro-enterprises and this means adequate support is not thoughtfully integrated to provide easy access to digital knowledge needed to create business value (Hörisch, Johnson, & Schaltegger, 2014).

These problems showed the need to encourage the exploration of digital marketing programs and sharia financing to ensure the development of Micro-enterprises after the Covid-19 pandemic. This indicates there is a need for the government to develop programs with due consideration for the access to technology which is considered one of the biggest obstacles for business people in the country. Therefore, this research intends to develop and compile an ideal program directed toward the adoption of digital business for Micro-enterprises as a way to ensure economic recovery after the pandemic. This is necessary to support government programs related to innovative city development in Central Java Province through appropriate business management and implementation of digital marketing at this strategic level. It is important to note that the program needs to be designed in such a way that it can be easily replicated by Micro-enterprises in the province.

Digitization has become an essential aspect in different aspects of life since the industrial revolution 4.0 era which is marked by the development of the digital economy, artificial intelligence, big data, and robots and naturally tagged the era of disruptive innovation (Morris, 2013). It is currently being applied in both the large and micro-small-scale industries but there is no standard and universally applicable definition regarding the boundaries for actors in the micro small sector in Indonesia (Horn & Brem, 2013).

The Indonesian government is serious about the preparation for this Industrial Revolution era through the empowerment of Micro-enterprises in order to ensure they compete effectively. An example of this is the digital business adoption programs initiated to improve the economic sector (Fernando & Bandara, 2020) and to also serve as an update in the efforts toward the development of smart countries. This is considered important and urgent due to the ability of a smart city to contribute 6.52 percent to regional economic growth (Tambunan, 2019) as well as the potential of the program to serve as a platform for 113,579,550 Micro-enterprises in Indonesia. The aspects of the program observed to be contributing to the concept of smart countries are presented in the following Table 1.

**Table 1.** Smart Countries Program

No	Aspect	Include
1	Smart governance	Finance, licensing, public information centers, public services
2	Smart branding	Micro-enterprises sector, regional tourism, e-mail
3	Smart economy	Crafts, souvenir centers, processed snacks
4	Smart giving	Population, layout, Indonesian cards are great
5	Smart society	Thematic countries, job search data, great gates

Source: Indonesia Government, 2019

The use of social media is considered to have a positive impact on businesses due to its ability to reduce considerable marketing costs and improve good relationships with customers. Moreover, marketing activities can be made very profitable using the right information technology to minimize time and place constraints. Companies also use *e-marketing* to improve their brand image by placing it in the memory of the customers (*top of mind*) (Bolling, Max, & Geoffrey,

2014). Therefore, this strategic analysis was conducted to produce a system that provides easy access to information through existing facilities to attract and retain customers as well as to ensure they continue using the company's products (Lu, Wu, Peng, & Lu, 2020). The technical implementation of this program is in the form of an electronic catalog which provides several sources of comprehensive information on products offered by micro-enterprises in Indonesia starting from the list, type, technical specifications, and price. This digital-based marketing program is considered beneficial due to its ability to serve as an effective medium to conduct buying and selling transactions as well as ordering products from these micro-business entities. It is also a marketplace managed by the Indonesian government through the Office of Cooperatives and Micro-enterprises as a non-commercial platform and this means the management of incoming order transactions is directly forwarded to the participating firms without any fee.

Adoption is defined as the process of accepting an innovation in the form of attitudes, knowledge, and skills. The mental process involved in making the decision to adopt is primarily determined by the knowledge, motivation, and attitude of the adopters (Rao & Rajeswari, 2020), and it is usually manifested in their behavior, method, and technology. Meanwhile, the five stages of adoption include (1) awareness of the latest situation, (2) increasing interest to know more, (3) evaluating the innovation submitted, (4) trying the innovation, and (5) adopting by accepting, implementing, and making innovations offered based on the success achieved during the experimental process. One of the major factors influencing the decision to adopt innovation is firm size due to the fact that a wider firm usually adopts innovations faster because of its better economic capabilities, income level, courage in taking risks, age, and activities in seeking new information. It is also important to note that extension workers (Mohan & Ali, 2019) and easier practical application of new technologies also have dramatic effects on the speed of innovation adoption. Moreover, the communication media available for the adoption process include interpersonal channels, media, mass media, and media forums. This means the adoption process is the initial stage for Micro-enterprises to accept the innovations initiated by the Indonesian Government based on the ability such as the attitude, motivation, knowledge, and skills of the actors acting as the adopting party, and this is further synergized by the socialization implemented at the introduction stage (Afifah et al., 2018). The digital business system was developed to increase market segmentation by allowing the electronic catalog system to expand business coverage and ensure easy access for customers in different regions. It is also to ensure the application of a transparent marketing strategy that focuses on reducing the operational costs normally incurred by micro-enterprises (Ritz et al., 2019).

The financial inclusion program has two strategic focuses which are sustainable income growth and open opportunities for all parties to access formal financial institutions. These are implemented to promote inclusive growth with emphasis placed on three comprehensive policy pillars including (1) good governance, (2) strong institutions, and (3) protection for the community. The concept is the spearhead of the national strategy used in Indonesia to encourage economic growth by distributing income evenly, reducing poverty, and ensuring system stability (Yadav, 2016). This is in line with the report of Bank Indonesia (2014) that the target of financial inclusion policy is to pay attention to the poor with low incomes, poor but productive, and those living far from financial institutions. The government, through the Regional Development Planning Agency, Research Sector, and Economic Development, initiated a financing assistance program for superior sharia-based micro and small business actors (Murabaha contract). This was achieved through a collaboration made through memorandums of understanding with several other institutions such as several Sharia People's Financing Banks, the Amil Zakat Agency, the Islamic

Economic Community (MES), the Department of Cooperatives and Micro Enterprises, telecommunications companies, branchless banking agents, and financial technology institutions.

Williams et al. (2014) and Noyola-Medina et al. (2018) showed the important implications of implementing digitalization schemes in businesses holistically and understanding the concepts beyond the information provided by local governments and other stakeholders. It was also discovered that there are several motives and industrial values associated with the proactive involvement of business actors in increasing business capabilities. This is the reason stakeholders always recommend industrial competitiveness and cost savings using advanced technology. Another study by Jansson et al. (2017) and Zheng, Wang, & Wachenheim (2019) provided a theoretical contribution to the relationship between EO, MO, and commitment to the sustainability of business competitiveness by showing a complex relation between the strategic orientation of a company and its commitment to sustainability. This broadens the insight into the actual workings and commitment to business sustainability.

## **2. Research Methods**

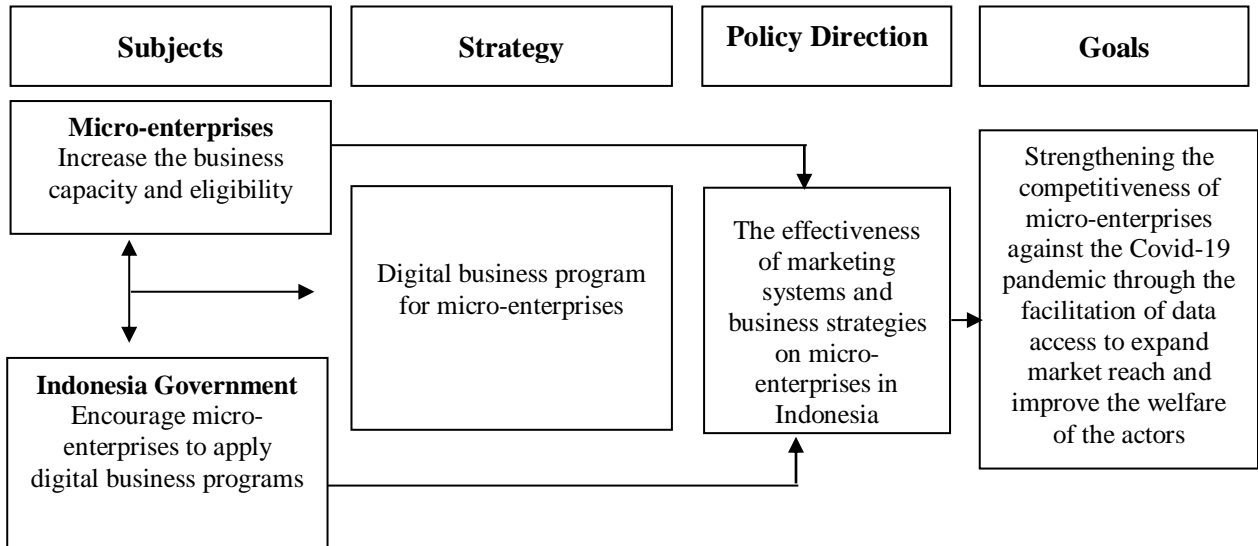
This is an exploratory qualitative approach conducted to identify the process of adopting e-marketing by Micro-enterprises in order to limit the business impact of the Covid-19 pandemic. The process involved using primary data in the form of direct responses from informants regarding e-marketing adoption through interviews. Moreover, the samples were obtained from DKI Jakarta, West Java, Central Java, and East Java's SME departments considered to have technological infrastructure readiness and the ability to implement digital marketing programs in their fostered micro-enterprises in order to restore the economy. They were also selected to ensure the provinces serve as a role model to other provincial governments in implementing immediate economic recovery plans (Igwenagu, 2016). Data were analyzed through data collection, reduction, presentation, and conclusion while the recovery program applied to Micro-enterprises after the pandemic was evaluated using the Business Model Canvas. This method has the ability to explain, assess, and visualize empowerment models in the leading micro-enterprises sectors rationally, comprehensively, and optimally.

### **2.1 Data Types Sources**

Primary data which involve interview results were combined with secondary data such as supporting studies to formulate the ideal model for digital business adoption in Indonesia's Micro-enterprises sector. The data acquisition process in this research is as follows (a) Direct Observation (The researcher observes the Micro-enterprises business practices in several potential regions to obtain an ideal role model); (b) In-depth Interviews (The obtaining data process by asking several questions in depth on Micro-enterprises using a non-probability technique (snowball sampling) which selects samples in a continuous network). Some of the questions asked in the in-depth interview process include: (1) How did you find out about digital-based business practice?, (2) What do you do when you get information about digital business? Are you immediately interested to implementing it?, (3) What are the main advantages that make you interested to implement a digital business scheme?, (4) What are the stages you do? Do you do it by yourself or use a current vendor?, (5) What digital business benefits do you get?; (c) Literature study; This scheme takes strategic information from reports published by official institutions related to the implementation of digital business in developing countries.

## 2.2 Research Flow and Conceptual Framework

The research focuses on micro-enterprises in Indonesia that are majorly indigenous. It was discovered that the Indonesian government provides strategic solutions in the form of digital business adoption for these enterprises affected by the Covid-19 pandemic to ensure sufficiency in their conventional and digital-based businesses. The ultimate objective is to strengthen the operation of these enterprises through the provision of easier access to data and the expansion of their market reach.



Source: (Cuevas-Vargas,H., Estrada, & Larios-Gómez, 2016)

**Figure 1.** Conceptual Framework for the application of Digital Business Programs on Micro and Small Enterprises in Indonesia

The Indonesia Government initiated the digital-based empowerment program model so micro-enterprises can contribute significantly to the country's economic recovery through operational management and digital infrastructure independently development. An object selection of this empowerment program is micro-enterprises to increase business competitiveness with broad market potential to encourage the micro and small enterprises development. This program is expected to facilitate more comprehensive marketing systems and digital business strategies for micro-enterprises (such as training and mentoring) to obtain data access and market reach easily. The outcome of this program is micro-enterprise self-reliance development that is internationally competitive and adaptive to technological advances.

## 3. Results and Discussions

### 3.1 Opportunities and Constraints Faced by Micro-enterprises in Indonesia

This program's adoption process is designed to assist Micro-enterprises in Indonesia, especially to optimally conduct digital business. It is considered important due to the high number of these enterprises in the country which are observed from the data presented by the Indonesian Cooperatives and Micro-enterprises Service (2019) to be relatively balanced between sub-districts. The report also showed that Central Java has the highest number with 2,814 while South Borneo has the least with 429. Moreover, the type of business and income also fluctuates positively as

indicated in Table 2 with the top five based on the sales turnover discovered to be those dealing with food, followed by handicrafts, crafts, fashion, and beverages.

**Table 2.** Indonesian Micro-enterprises Income Turnover for 2016-2020

Commodities	2016	2017	2018	2019	2020
Handy Craft	33,549,450,000	32,531,600,000	31,513,750,000	30,495,900,000	29,478,050,000
Batik	1,301,391,000	1,310,995,700	1,320,600,400	1,330,205,100	1,339,809,800
Drink	725,000,000	702,550,000	680,100,000	657,650,000	635,200,000
Food	16,307,671,500	19,858,674,400	23,409,677,300	26,960,680,200	30,511,683,100
Fashion	867,976,150	1,011,811,380	1,155,646,610	1,299,481,840	1,443,317,070
Convection	224,500,000	214,001,400	203,502,800	193,004,200	182,505,600
Craft	1,310,951,000	1,515,892,900	1,720,834,800	1,925,776,700	2,273,475,547
Soap	1,720,500	1,680,300	1,640,100	1,599,900	1,559,700

Source: (Ministry of Cooperatives and Micro-enterprises of Indonesia, 2020)

### 3.2 The impact of Covid-19 Pandemic on Micro-enterprises Business Performance in Indonesia

The emergence of the Delta variant has a significant impact on the situation of micro-enterprises, which initially began to improve their business performance to become more sluggish. Even giant companies have fired many employees because they have to save on operational costs (Rakshit & Paul, 2021). Report by the Ministry of Cooperatives and Micro-enterprises of Indonesia (2020), there are around 1,538 micro-enterprises that have difficulty in business performance or go bankrupt, such as food processing, arts, and crafts (Juwita et al., 2020). Moreover, the problems faced are divided into external and internal aspects as indicated in Table 3.

**Table 3.** Problems Faced by Micro-enterprises in Indonesia

Internal	External
<ul style="list-style-type: none"> <li>• Lack of entrepreneurial innovation</li> <li>• Diseconomies of scale due to small production capacity.</li> <li>• Limited capital</li> <li>• Low quality of human resources which causes the inability to maximize the quality of the products.</li> <li>• Availability of raw materials in the production process.</li> <li>• High production costs due to ineffective and inefficient production processes which make the products to be relatively expensive.</li> <li>• Relative low application of technology in the production process.</li> </ul>	<ul style="list-style-type: none"> <li>• Non-responsive development policies for micro-enterprises.</li> <li>• Lack of external contributions to support the development of micro-enterprises.</li> <li>• Threats from imported similar products.</li> <li>• Difficulty in market expansion.</li> <li>• Increase in distribution costs due to poor infrastructural conditions.</li> <li>• Convoluted financing processes of formal financial institutions through the imposition of high-interest rates.</li> </ul>

Source: Primary Data, 2020.

### 3.3 Digital Business Program Overview

The Indonesian Government introduced a single online submission modeling system for micro-enterprises to serve as a medium to manage their digital businesses with minimized errors. An emphasis was placed on the systematic collection of data the actors considered to be business partners in order to empower and monitor their activities through the provision of input and direction to guide their decision-making activities (Redjeki & Affandi, 2021). This means the digital business program is an innovative idea of the government to ensure digital business involving buying and selling is conducted in an electronic catalog. It allows immediate placement of orders from micro-enterprises players, thereby, leading to a multiplier effect which smoothens business activities, especially when micro-enterprises economic conditions decline due to Delta variations during the Covid-19 pandemic. The program has facilities in the form of an electronic catalog used for superior local products related to culinary, crafts, fashion, and the creative economy.

Implementing the digital-based economic empowerment program, micro-enterprises must have comprehensive operational procedures. The main advantage of digital-based empowerment program is facilitating the public convenience to know products offered by micro-enterprises, so local products will be more highly competitive than imported products (Lai & Lin, 2015). If the economic turnover mainly occurs in local products, it shows the Indonesia Government contribution to encourage digital micro-enterprises performance survive during the Covid-19 pandemic and in the future. Meanwhile, the main operational contents to assist micro-enterprises implementation empowerment programs are (a) A digital catalog to show product variations offered (such as photos, descriptions, and prices) in the apps; (b) Application encryption security so the Indonesia Government can digitally guarantee transactions between micro-enterprises and their consumers; (c) Ease of use of applications that make access anytime and anywhere with lower shipping costs; (d) A relatively frequent discount policy is given so more purchases occur.

The ease of administrative process and the Indonesia Government's strict guideline are the main of this program advantages being implemented sustainably in the long term. Micro-enterprises are introduced, trained, assisted, and given easy access to obtain capital so they can always survive in national and international industry. The assisted micro-enterprises by government have easier access to providing training and mentoring class for other potential participants. Besides, the training and mentoring class can be an alternative for micro-enterprises to obtain permission become members of empowerment program (Amelia et al., 2021).

**Table 4.** Criteria and Requirements for Micro-enterprises to Participate in the Digital Business

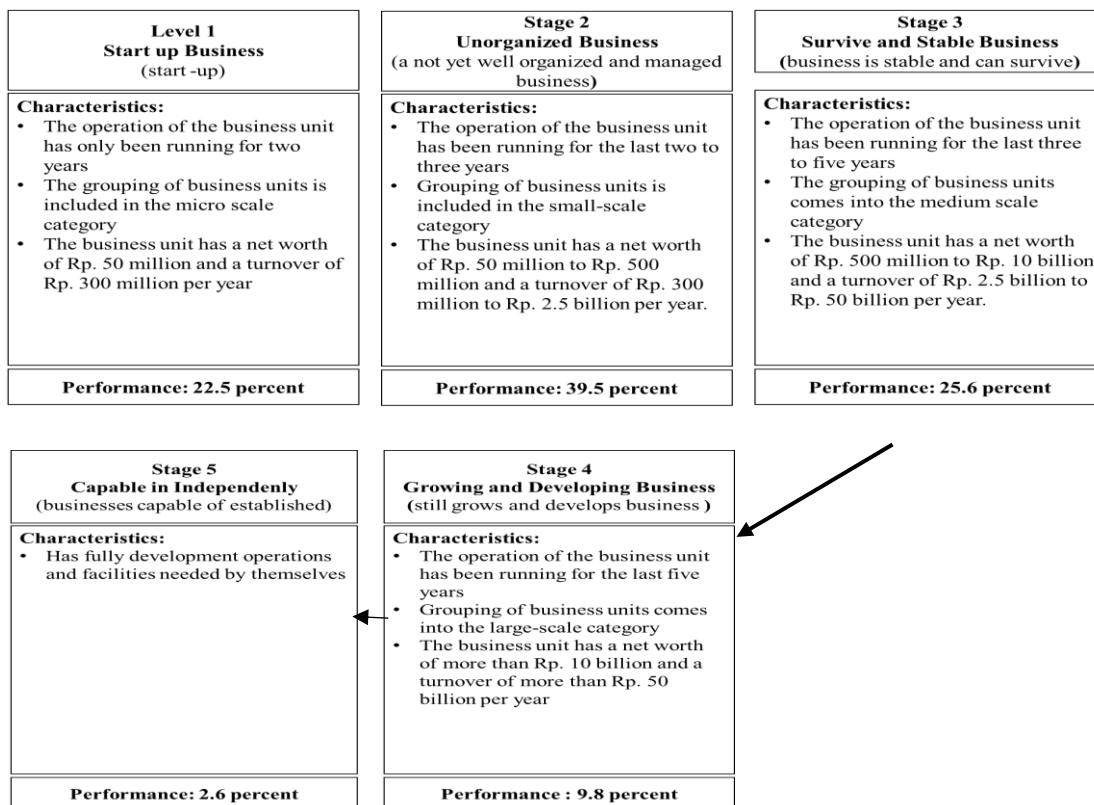
No	Criteria	No	Requirement
1	Participants are Indonesian citizens (proven by ID cards)	1	Actual scan of participant's ID card
2	Participants have business assets of less than Rp. 300 million	2	Actual scan of business financial statements
3	Participants have permission to participate in digital-based empowerment programs	3	Actual scan of the digital-based empowerment program participation permission
4	Participants are not included in blacklist as assisted by the Cooperatives and mico-enterprise Service	4	Actual scan as assisted by the Cooperatives and mico-enterprise Service
5	Participants have social media, bank accounts, and smartphones	5	Actual scan of social media profiles and account book front pages

Source: (Ministry of Cooperatives and Micro-enterprises of Indonesia, 2020), modified.

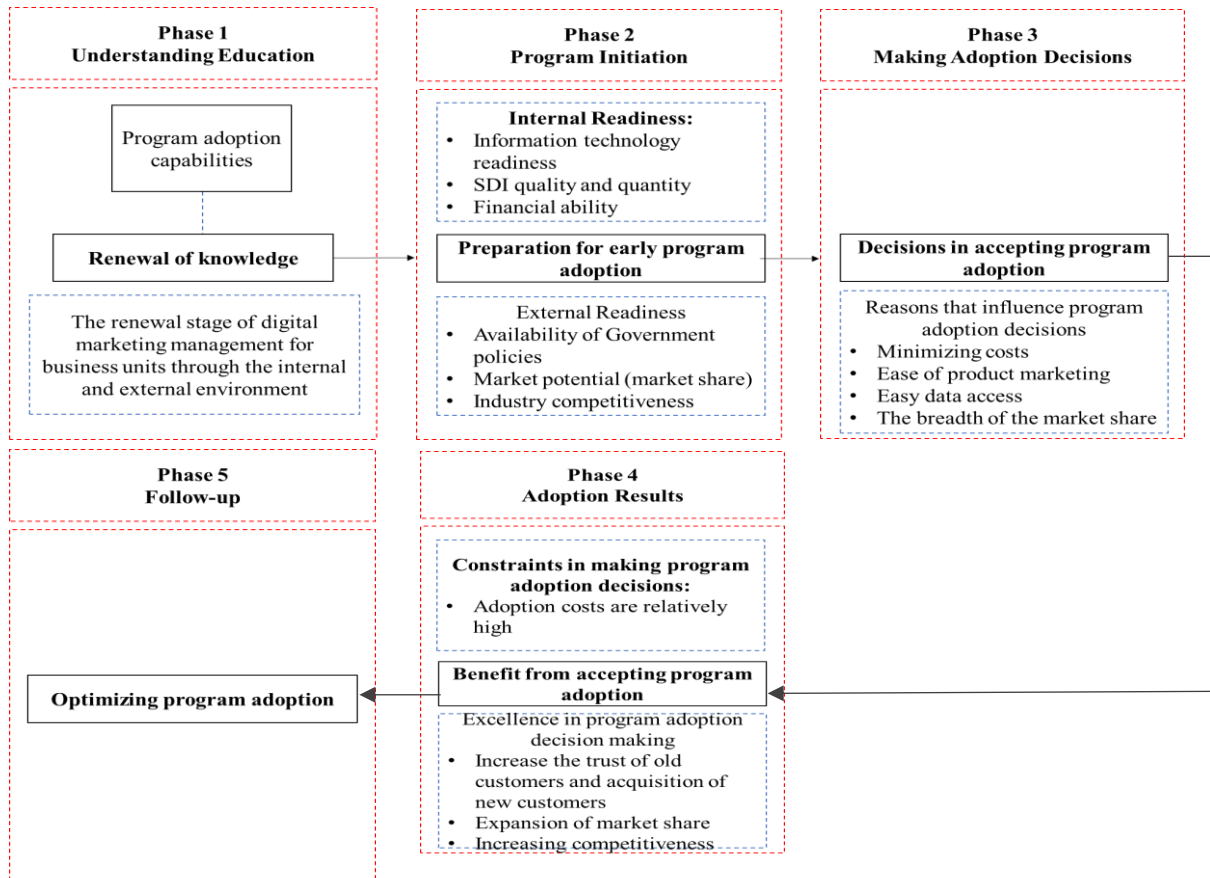


The successful implementation of the national economic recovery program through a comprehensive digital-based empowerment scheme for micro-enterprises requires high consistency from the Indonesia Government to optimally and avoid various internal and external challenges. The critical role of the Department of Cooperatives and SMEs as technical implementers in the field of analyzing the internal and external environment can make a positive contribution to the process of implementing the program so that its achievements can cover all provinces in Indonesia. The rapid improvement of infrastructure in Indonesia is also one of the key factors in disclosing access to information for all local governments and micro-enterprises to collaborate to achieve program objectives according to the directions.

The digital-based empowerment program for micro-enterprises has the main advantage of supporting the market penetration process and doing business initially only run conventionally. Still, now micro-enterprises have become more flexible because they can run the media for doing business through digital schemes (Mungila Hillemane Bala, Satyanarayana, & Chandrashekar, 2019). The impacts that arise as a result of this program are (1) increased engagement of the role of the Government of Indonesia in the international arena in the sector of economic improvement; (2) increasing the effectiveness of industrial governance due to the extensive use of advanced technology; (3) increasing the competitiveness of micro-enterprises in the industry at the national and international levels. The model for implementing digital-based empowerment programs on micro-enterprises is presented in Figure 2.



**Figure 2.** Roadmap for The Digital Business Economic Recovery Program



**Figure 3.** The Digital Business Economic Recovery Program Adoption Model

This involves the renewal of the knowledge possessed by Micro-enterprises to ensure they have the ability to indirectly use their internal and external aspects as the solutions to the problems being faced. The emphasis at this stage is on the search and processing of information needed in the Program adoption process. The mastery of these two aspects can be used to minimize the uncertainty in the process of making the adoption decision.

The five stages to be systematically passed in the process of adopting the Economic Recovery Program are stated as follows:

- **Understanding Education Phase**

This involves the renewal of the knowledge possessed by Micro-enterprises to ensure they have the ability to indirectly use their internal and external aspects as the solutions to the problems being faced. The emphasis at this stage is on the search and processing of information needed in the Program adoption process. The mastery of these two aspects can be used to minimize the uncertainty in the process of making the adoption decision.

- **Understanding the Initiation Phase**

This focuses on the initial preparation to adopt the economic recovery program using the internal factors such as (1) readiness of information technology, (2) quality and quantity of business, and (3) financial management ability as well as the external factors such as (1) the

availability of friendly government policies, (2) market potential or share, and (3) industrial competitiveness. The selection of appropriate information is expected to provide the input on the best ways to conduct the adoption process and to launch the business activities, especially in relation to digital business through an electronic catalog.

- **Adoption Decision-Making Phase**

This phase involves making decisions based on some primary considerations such as (1) ease of product marketing, (2) easy access to data, and (3) market share expansion. The greater benefits provided by the program are expected to increase the number of actors ready for its adoption to survive the prevailing sluggish economic condition caused by the pandemic.

- **Adoption Outcome Phase**

This focuses on the benefits to be gained after the adoption of the program and one of these is the transformation from conventional to digital business activities which led to the avoidance of high management costs. The ease of searching for the desired product through the internet by entering the keywords on the search page is another added value of the program in addition to the expansion of market share and increase in customer trust.

- **Follow-up Phase**

This involves the evaluation of the program as well as adjusting and optimizing its design to incorporate operations with digital technology updates in order to increase the number of orders, effective promotional media, and attract consumers even outside Central Java Province. The adoption scheme for this program was prepared by the Indonesian government to ensure easy transactions for buyers and sellers after its implementation and also to provide a sense of security and comfort as indicated in Table 5.

**Table 5.** Overview of Business Transaction After the Adoption of the Digital Business Program

<b>Stages</b>	<b>Function</b>	<b>Mechanism</b>
Data Collection	<ul style="list-style-type: none"> <li>• Data collection from Micro-enterprises in Indonesia</li> <li>• Responsible detachment: District Office</li> </ul>	<ul style="list-style-type: none"> <li>• Micro-enterprises submit applications for participation in digital-based empowerment programs at the nearest sub-district office by collecting all the mandatory registration requirements that have been determined.</li> <li>• The sub-district office verifies the validity of the data and then curates the data of prospective participants into the applicable system.</li> <li>• The Sub-district detachment submits a request for a recommendation or approval to the district detachment.</li> <li>• The district detachment will issue membership cards along with digital-based empowerment program guidelines.</li> </ul>
Registration	<p><b>Consumer</b></p> <ul style="list-style-type: none"> <li>• Register at application as a buyer</li> <li>• Responsible party: regional organizations and individuals</li> </ul>	<ul style="list-style-type: none"> <li>• Consumers download the application on Playstore and Appstore.</li> <li>• Consumers register by filling valid identity to get an account.</li> <li>• The application administrator will verify the data and be categorized it as a real consumer.</li> <li>• Consumers are given automatic tutorials in using the application, so they don't face difficulties in transactions.</li> </ul>

Stages	Function	Mechanism
Product Curation	<p><b>Micro-enterprises</b></p> <ul style="list-style-type: none"> <li>• Register at application as a seller</li> <li>• Responsible party: Micro-enterprises registered as a member</li> </ul>	<ul style="list-style-type: none"> <li>• Micro-enterprises download applications through Playstore and Appstore with an unlimited number of devices.</li> <li>• Micro-enterprises register as a seller, fill in complete identity, and upload the products offered (such as photos, product names, and prices)</li> <li>• The application administrator comprehensively curates the complete identity and authenticity of the uploaded product.</li> <li>• Micro-enterprises are given automatic tutorials in using the application, so they don't face difficulties in transactions.</li> <li>• The application administrator sends data on micro-enterprises products to the Cooperatives and SMEs Office for validity check.</li> <li>• The curation process is carried out by observing uploaded product images quality and authenticity, then providing necessary suggestions.</li> <li>• The Department of Cooperatives and SMEs publishes a list of micro-enterprises that pass and do not pass from curation process.</li> <li>• The application administrator grants the transaction permission if all checking results have been completed.</li> <li>• The application administrator informs data improvement if it is not qualified.</li> </ul>
	<ul style="list-style-type: none"> <li>• Ensure the validity information uploaded meet applicable standards.</li> <li>• Responsible party: Indonesia Government through the Cooperatives and Micro-enterprises Office</li> </ul>	
Order, Delivery, and Payment Process	<ul style="list-style-type: none"> <li>• Consumers search for the desired product, order, then micro-enterprises producing and delivering through online shipping agents.</li> <li>• Responsible Agency: Consumers, micro-enterprises, and Indonesia Government through the Cooperatives and Micro-enterprises Office</li> </ul>	<ul style="list-style-type: none"> <li>• Consumers search for the desired product by selecting features according to category.</li> <li>• Consumers enter keywords to make it easier to find products.</li> <li>• Consumers select, order products, and pay in advance through a "cash" or "app balance" scheme.</li> <li>• Micro-enterprises will receive order notifications, so the status on consumer applications changes from "ordered" to "processed".</li> <li>• Micro-enterprises pack the ordered product and then click "order ready".</li> <li>• Micro-enterprises select the type of product delivery agent.</li> <li>• Orders will be picked up and then delivered to consumers.</li> <li>• The status of consumer applications also changes from "processed" to "submitted".</li> <li>• Payment will be declared complete if the consumer clicks "order received" for a maximum of 1x24 hours.</li> </ul>

Source: Primary Data, 2020.

### 3.4 The Suitability of the Digital Business Program to Indonesia's 2021-2025 Long Term Development Plan

The potential strategic value of micro-enterprises in Indonesia increased due to the adoption of digital business programs, thereby leading to an enhanced national economic competitiveness. Historically, Indonesia is one of high potential countries economy because it is center of government. It also has adequate services supported by good facilities and infrastructure for land, sea, and air routes (Gorsira, Denkers, & Huisman, 2018). There is a need for the country to increase its competitive advantage by maximizing existing economic opportunities that can be maximally managed and produced. This was observed to be initiated through the digital business program to optimize the adoption of digital-based business activities by micro-enterprises. It is important to note that the realization of the maximum potential of this program by the micro-enterprises depends on the ability of the government to ensure maximum achievement of every stage of digital business adoption in the short, medium, and long term. Implementing digital-based empowerment

programs that are emotionally related to community development will provide a comprehensive multiplier effect to develop regions effectively and efficiently. Meanwhile, the implementation process requires the preparation, readiness, consistent support, and commitment of stakeholders. The Long-Term Development Plan (2021-2025) prioritizes the regional economic sector, focusing on increasing regional independence and competitiveness to provide comparative advantages based on local economic potential, as indicated in Table 6.

**Table 6.** Targets, Directions, and Priorities for Economic Development

<b>Policy Objectives and Directions 2021-2025</b>	<b>Economic Development Priorities</b>
The development through the acceleration of several fields such as the formation of a strong social, cultural, and economic structure for communities by considering their comparative and competitive advantages	<ul style="list-style-type: none"> <li>• Strengthening access to micro-enterprise products on the international market</li> <li>• improve information technology infrastructure to facilitate access to transactions for micro-enterprises</li> <li>• Facilitate access to capital for micro-enterprises</li> <li>• Encouraging the economy and through partnership schemes with local micro-enterprises</li> <li>• Determination of policies and strategies for dealing with the post-Covid-19 economy</li> </ul>

Source: (Indonesian Planning and Development Agency, 2020)

### 3.5 Business Model Canvas of Economic Recovery Program Based on Digital Business for Micro-enterprises

Digital-based business management is considered appropriate and it is necessary to conduct an in-depth study and analysis in the future using the business canvas model to ensure a more effective and efficient development stage towards achieving a successful economic recovery program in all provinces of Indonesia.

<b>KEY PARTNERSHIP</b> <ul style="list-style-type: none"> <li>• Development Planning Agency</li> <li>• Office of Cooperatives and Micro Enterprises</li> <li>• Islamic Bank</li> <li>• Conventional Bank</li> <li>• Digital programmer</li> </ul>	<b>KEY ACTIVITIES</b> <ul style="list-style-type: none"> <li>• Development or maintenance of the Program platform</li> <li>• Strengthening the role of stakeholders involved in program management</li> </ul>	<b>VALUE PROPOSITION</b> <ul style="list-style-type: none"> <li>• Providing digital marketing services to Micro-enterprises considered to be business partners through the program platform</li> <li>• Development of Micro-enterprises through startup and scale-up training</li> <li>• Providing business assistance programs, exhibiting superior products, as well as online and offline financing assistance</li> </ul>	<b>CUSTOMER RELATIONSHIP</b> <ul style="list-style-type: none"> <li>• Local government officials</li> <li>• IT (platforms)</li> <li>• Socialization of program benefits Micro-enterprises</li> </ul>	<b>CUSTOMER SEGMENTS</b> <ul style="list-style-type: none"> <li>• Micro-enterprises with a profit of IDR 300 million and have net assets of at least IDR 50 million</li> <li>• Micro-enterprises don't conflict with the national scale sustainable development program</li> <li>• Micro-enterprises have one of the official business licenses such as a Trading Business Permit (SIUP), Taxpayer Identification Number (NPWP), Business Identification Number (NIB), Company Domicile Certificate (SKDP)</li> <li>• Micro-enterprises have social media to share product information</li> <li>• Micro-enterprises have an online shop for sales</li> </ul>
	<b>KEY RESOURCES</b> <ul style="list-style-type: none"> <li>• Computer and website infrastructure</li> <li>• Offline managerial skills (utilization and development of operational management)</li> </ul>		<b>CHANNELS</b> <ul style="list-style-type: none"> <li>• Marketplace</li> <li>• Media social</li> <li>• Facebook and Google AdSense</li> </ul>	
<b>REVENUE STREAMS</b> <ul style="list-style-type: none"> <li>• Services to Micro-enterprises in digital business to expand market share</li> </ul>		<b>COST STRUCTURE</b> <ul style="list-style-type: none"> <li>• Platform and infrastructural development and maintenance costs</li> <li>• HR Cost</li> <li>• Operating costs</li> </ul>		

**Figure 4.** Business Model Canvas Economic Recovery Program for Micro-enterprises

The BMC model in Figure 4 was generated based on generic web-based Key Performance Indicators (KPIs) to ensure it is more effective and appropriate for the digital industry in terms of (1) Conversion rate; This involves the proportion of visitors or buyers that continues to participate through subscription. It is important to note that a higher conversion rate indicates the presence of more buyers; (2) New vs. returning visitors; This focuses on the proportion of existing visitors or buyers that are increasingly loyal to the extent of inviting or influencing other potential buyers to buy; (3) Bounce rate; This is the level of product purchase in a business required to be observed by managers to analyze business development and marketing performance; (4) Abandonment rate; This is the level of cancellation of product purchases which the manager needs to observe consistently to innovate according to the level of business in order to increase the loyalty of the customers to the brand; (5) Cost per conversion: This is the calculation of the total cost needed by the business to campaign through social media or other means when penetrating the market.

KPIs are essential to the evaluation of the company's website success and are usually in the form of a count or a ratio basically available on all types of websites. They are normally integrated with business strategy and the right sets usually differ based on locations and process types. It is important to note from the marketing perspective that the selection of suitable KPIs is very important to the effective monitoring of organizational performance as well as to enable the organizations to make informed decisions required to ensure continuous improvement. KPI success can be measured by intensely and regularly reviewing business performance based on the engagement in the digital platforms used by business enterprises. This is associated with the opportunities offered by these platforms concerning the use of consumer engagement to build brand awareness. They are also effective in ensuring enterprises remain attractive due to the interconnection they have with consumers online through the speed of information passed across the network. The key is that digital platforms allow like-minded people to interact and exchange information on web content. Meanwhile, online customers are attracted to fun, informative, and unique activities and the platforms also provide business enterprises the opportunity to know more about their customers in relation to the things they like and their choice of area for hang-outs. This information can be used to attract customers to their brands while respecting the ethics of the online community (Sugandini et al., 2019).

The covid-19 pandemic has a multiplier effect on the marketing performance of micro and small businesses in Indonesia as indicated by the reduction in the number of customers, income, profits, and production capacity. This implies these businesses require information technology support such as digital skills development and this can be successfully achieved through the commitment of the stakeholders. This is necessary because micro and small businesses need to implement prototypes of new technologies and explore forms of collaboration with the industrial world, academia, and the community to adopt digital marketing programs. It is important to note that adopting digitalization and empowering micro and small business processes are strategic steps to strengthen the people-based economy as observed from both their social and economic benefits and costs. There are two categories of the recovery program implemented by the government and these include the startup training intended for micro and small businesses that are not less than a year old and scale-up training required for those that have been running for a minimum of three years. This means the program is not limited to only micro-small enterprises but also startups while a business assistance program was also implemented for the financial aspect.

The Economic Recovery Program was planned and developed to ensure the optimal quality and quantity of micro-enterprises in the industry. The intention is to promote the actors to develop their businesses, hence those considered to be micro grow to small businesses, small ones become medium, and the medium flourishes to large-scale businesses in order to realize a multiplier effect

in the economy. The road map of the program was initiated through the integration of the stakeholders including the government sector, practitioners, formal financial institutions, and academics to synergize and discuss the technical implementation as well as the regulations to serve as the legal umbrella and also to provide other infrastructure facilities to support the success of the program. It is important to note that the stakeholders are expected to implement their respective roles and responsibilities professionally in line with the memorandum of understanding signed.

#### 4. Conclusion

The Indonesia Government's main contribution to accelerating the national economic recovery is through a digital-based empowerment program to facilitate micro-enterprises in obtaining loans access and advanced technology to survive during the Covid-19 pandemic. The Indonesia Government can also utilize the advantages this digital-based empowerment program in post-Covid-19 pandemic to facilitate micro-enterprises to develop operational business capacity, expand market share, and increase strategic partnerships member on national and international scales. These benefits have increased the membership in the program, thereby, leading to its optimal utilization as an alternative recovery solution for the micro-enterprises in the country. However, the specific weakness of the program is that it only focuses on digitizing businesses without its integration into other processes.

The selection process to choose micro-enterprises that meet the Indonesian Cooperatives and Micro-enterprises Service requirements can participate in a digital-based empowerment program through an integrated online single submission that effectively and efficiently measures its implementation. The digital-based empowerment program can be used as a role model for other developing countries' governments to facilitate the micro-enterprises sustainability during the Covid-19 pandemic. A positive impact for the Indonesia Government is higher bargaining power at the international level in improving country's economic welfare.

#### References

- Abedisi, S. A., & Bakare, N. A. (2019). Survival Strategies and Sustainability of Small and Medium Enterprises in a Volatile Environment. *Management Dynamics in the Knowledge Economy*, 7(4), 553–570. <https://doi.org/10.25019/mdke/7.4.07>
- Afifah, A. N., Najib, M., Sarma, M., & Leong, Y. C. (2018). Digital Marketing Adoption And The Influences Towards Business Successes Of Micro-enterprises Creative Sector In Indonesia And Malaysia. *Jurnal Aplikasi Manajemen*, 16(3), 377–386. <https://doi.org/10.21776/ub.jam.2018.016.03.01>
- Alves, H., Fernandes, C., & Raposo, M. (2016). Social Media Marketing: A Literature Review and Implications. *Journal of Psychology and Marketing*, 33(12), 1029–1038. <https://doi.org/10.1002/mar.20936>
- Amelia, T. N., Thoyib, A., Irianto, G., & Rofiq, A. (2021). Tech Start-up Incubation Program: Business Model Evaluation on Government Based Incubator in Indonesia. *TEM Journal*, 10(1), 283–291. <https://doi.org/10.18421/TEM101-35>
- Bank Indonesia. (2014). *Global Financial Development Report 2014: Financial Inclusion*. Jakarta: Department of Development of Access to Finance and Micro-enterprises.

- Bolling, R., B. Max., and D. Geoffrey. (2014). Social Networking and Small Business: An Exploratory Study. *Contemporary Readings in Law and Social Justice*, 6 (2): 122-129.
- Cuevas-Vargas, H., Estrada, S., & Larios-Gómez, E. (2016). The effects of ICTs as innovation facilitators for a greater business performance. Evidence from Mexico. *Information Technology and Quantitative Management (ITQM 2016)*. *Procedia Computer Science*, 91, 47 – 56.
- Dinas Koperasi dan UKM Jawa Tengah. (2019). *Data Perkembangan Aset Usaha Mikro, Kecil, dan Menengah di Jawa Tengah 2019*.
- Fernando, M., & Bandara, R. (2020). Towards Virtuous And Ethical Organisational Performance In The Context Of Corruption: A Case Study In The Public Sector. *Public Administration and Development*, 40(3), 196-204.
- Gamage, S. K. N., Ekanayake, E. M. S., Abeyrathne, G. A. K. N. J., Prasanna, R. P. I. R., Jayasundara, J. M. S. B., & Rajapakshe, P. S. K. (2020). A Review Of Global Challenges And Survival Strategies Of Small And Medium Enterprises (SMEs). *Economies*, 8(79), 1–24. <https://doi.org/10.3390/ECONOMIES8040079>
- Gorsira, M., Denkers, A., & Huisman, W. (2018). Both Sides of The Coin: Motives for Corruption Among Public Officials and Business Employees. *Journal of Business Ethics*, 151(1), 179–194.
- Hörisch, J., Johnson, M.P., & Schaltegger, S. (2014). Implementation of sustainability management and company size: A knowledge-based view. *Business Strategy and the Environment*, 24(8), 765-779.
- Horn, C., & Brem, A. (2013). Strategic Directions on Innovation Management – A Conceptual Framework. *Management Research Review*, 36(10), 1–21. <https://doi.org/10.1108/MRR-06-2012-0142>
- Igwenagu, C. (2016). *Fundamentals of Research Methodology and Data Collection*. LAP Lambert Academic Publishing. [https://www.researchgate.net/publication/303381524\\_Fundamentals\\_of\\_research\\_methodology\\_and\\_data\\_collection](https://www.researchgate.net/publication/303381524_Fundamentals_of_research_methodology_and_data_collection)
- Imleesh, R. M., Yanto, H., & Sucihatningsih. (2017). The Impact Of Fiscal Decentralization On Economic Growth In Indonesia. *Journal of Economic Education*, 6(1), 19–28. <https://doi.org/10.20885/ejem.vol11.iss2.art3>
- Indonesian Cooperatives and Micro-enterprises Service. (2019). *Data Perkembangan Aset Usaha Mikro, Kecil, dan Menengah di Jawa Tengah 2019*. <https://jatengprov.go.id/beritaopd/umkm-jateng-sumbang-kontribusi-pengentasan-kemiskinan-hingga-50/>
- Jansson, J. et al. (2017). Commitment to Sustainability in Small and Medium-Sized Enterprises: The Influence of Strategic Orientations and Management Values, *Business Strategy and the Environment*, 26(3), 69–83.
- Juwita, R., Arsyad, A. W., & Alfando, J. (2020). Micro-enterprises Empowerment Communication



in New Normal Era : The Case of Mini University Kaltim Preneurs in East Kalimantan , Indonesia. *Budapest International Research and Critics Institute-Journal*, 3(4), 3754–3765. <https://doi.org/10.33258/birci.v3i4.1439> 3754

- Kementerian Koperasi dan Usaha Kecil dan Menengah. (2019). *Statistik Usaha Mikro, Kecil dan Menengah Tahun 2018-2019*.
- Khan, A. J., Tufail, M. S., and Ali, A. (2021). Factors Affecting Performance of Small & Medium Enterprises: The Mediating Role of Knowledge Management. *Pakistan Journal of Humanities and Social Sciences*, 9(2), 197–209.
- Lai, W. H., & Lin, C. C. (2015). Constructing Business Incubation Service Capabilities for Tenants at Post-Entrepreneurial Phase. *Journal of Business Research*, 68(11), 2285-2289.
- Lu, Y., Wu, J., Peng, J., & Lu, L. (2020). The perceived impact of the Covid-19 epidemic: evidence from a sample of 4807 SMEs in Sichuan Province, China. *Environmental Hazards*, 19(4), 323-340.
- Maksum, I. R., Sri Rahayu, A. Y., & Kusumawardhani, D. (2020). A Social Enterprise Approach to Empowering Micro, Small and Medium Enterprises (SMEs) in Indonesia. *Journal of Open Innovation: Technology, Market, and Complexity*, 6(3), 1–17. <https://doi.org/10.3390/JOITMC6030050>
- Ministry of Cooperatives and Micro-enterprises of Indonesia. (2020). *Statistik Usaha Mikro, Kecil dan Menengah Tahun 2019-2020*. <https://kemenkopukm.go.id/data-umkm>.
- Mohan, V. & Ali, S. (2019). Challenges Faced By Indian Micro-enterprises in Adoption of Internet Marketing and E-Commerce. *Academy of Marketing Studies Journal*, 23(1), 1-9.
- Morris, L. (2013). Three Dimensions of Innovation. *International Management Review*, 9(2), 5–10.
- Mungila Hillemane Bala, S., Satyanarayana, K., & Chandrashekar, D. (2019). Technology Business Incubation for Start-Up Generation: A literature Review Toward a Conceptual Framework. *International Journal of Entrepreneurial Behavior & Research*, 25(7), 1471-1493.
- Noyola-Medina, A. M., Pinzón-Castro, S. Y., & Maldonado-Guzman, G. (2018). Innovation and Digital Marketing Adoption in Mexican Small Business. *Journal Management & Sustainability*, 8(2), 18-27.
- PPID Dinas Koperasi dan UKM Semarang. (2019). *Data Statistik UMKM di Kota Semarang*.
- Qashou, A., & Saleh, Y. (2018). E-marketing implementation in small and medium-sized restaurants in Palestine. *Arab Economic and Business Journal*, 13(2), 93–110. <https://doi.org/10.1016/j.aebj.2018.07.001>
- Rakshit, D., & Paul, A. (2021). Ripple Effect Of Covid-19 On MSME Sector And Road Ahead Micro-enterprises. *International Journal of Current Research*, 12(7), 12350–12355.

- Rao, V. D. M., & Rajeswari. (2020). Adoption of Digital Marketing Practices in Micro Small Medium Enterprises for Inclusive Growth. *International Journal of Recent Technology and Engineering*, 8(6), 1239–1244. <https://doi.org/10.35940/ijrte.f7539.038620>
- Redjeki, F., & Affandi, A. (2021). Utilization of Digital Marketing for MSME Players as Value Creation for Customers during the COVID-19 Pandemic. *International Journal of Science and Society*, 3(1), 40–55. <https://doi.org/10.200609/ijssoc.v3i1.264>
- Ritz, W., Wolf, M., & McQuitty, S. (2019). Digital Marketing Adoption And Success For Small Businesses: The Application Of The Do-It-Yourself And Technology Acceptance Models. *Journal of Research in Interactive Marketing*, 13(2), 179–203. <https://doi.org/10.1108/JRIM-04-2018-0062>
- Sawangchai, A., et al. (2018). The Strategy Development Of Small And Medium Enterprises (SMEs) Of Accommodation And Food Service In Phuket. *Jurnal Manajemen Kewirausahaan*, 20(2), 122–128.
- Sugandini, D. et al. (2019). Technology-Organization-Environment Model and Technology Acceptance Model in Adoption of Social Media Marketing on SMEs Tourism. *Journal of Environmental Management and Tourism*, 10(4), 878–885.
- Tambunan, T. (2019). Recent Evidence of The Development of Micro, Small and Medium Enterprises in Indonesia. *Journal of Global Entrepreneurship Research*, 9(18), 1–15. <https://doi.org/10.1186/s40497-018-0140-4>
- Wang, C. N., & Le, A. L. (2018). Measuring The Macroeconomic Performance Among Developed Countries And Asian Developing Countries: Past, Present, And Future. *Sustainability*, 10(10), 1–18. <https://doi.org/10.3390/su10103664>
- Williams, S. et al. (2017). Small And Medium Sized Enterprises And Sustainability: Managers' Values And Engagement With Environmental And Climate Change Issues. *Business Strategy and the Environment*, 22(3), 173–186.
- Worldometers. (2020). *Covid-19 Coronavirus Outbreak*. [www.worldometers.info](http://www.worldometers.info)
- Yadav, M. S. (2016). The Impact of Information Technology on Modern Accounting Systems with Reference to Pune Region. *International Journal of Research in IT and Management*, 6(9), 87–94.
- Zheng, S., Wang, Z., & Wachenheim, C. J. (2019). Technology Adoption Among Farmers in Jilin Province, China: The Case of Aerial Pesticide Application. *China Agricultural Economic Review*, 11(1), 206–216.