# DETERMINANT VARIABLES OF MSMES' DIGITAL TRANSFORMATION IN PHARMACIES IN INDONESIA DURING THE COVID-19 PANDEMIC

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#### **Abstract**

Micro, Small and Medium Enterprises (MSMEs) are the backbone of the Indonesian economy. According to several definitions, pharmacies can be counted as Medium Enterprises. However, the COVID-19 Pandemic dealt a blow to the world's economy which resulted in many MSMEs being forced to close. MSMEs had to adapt using various ways in order to survive. One of the possible ways to adapt is by adopting a Business Model Innovation that integrates Digitalization, in other words, part of the business is done online. This research aims to see whether pharmacies in DKI Jakarta, the City of Tangerang and the City of South Tangerang have already implemented Digitalization by collaborating with the Halodoc application. This research also will see what are the motivations for Digitalization and whether it has had a positive impact for the pharmacies in terms of the sales of products. Furthermore, this research also will investigate the influence of Interprofessional Collaboration, Green Economy and Responsibility to the Government on Digital Transformation. Data will be collected quantitatively, and quantitative data will be processed by way of descriptive statistics using the program SPSS 22nd Version. The results of the research can be used by the Government and related institutions to craft policies that can encourage the Digitalization of MSMEs in Indonesia in order to reach the Sustainable Development Goals in the effort to develop a Green Economy.

**Keywords:** interprofessional collaboration, green economy, responsibility to the government, digital transformation, MSMEs, Halodoc..

#### A. Introduction

Micro, Small and Medium Enterprises (MS-MEs) play an important role in the country's economy because they absorb 97% of all workers in the Indonesian economy [1]. Keeping up with the times, managers must try to run their businesses in accordance with the Green Economy (GE) concept to ensure the sustainability of their businesses.

Green Economy is an economic concept that makes environmental sustainability an import-

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ant part of business and enterprise [2]. One way to encourage the development of the Green Economy is by implementing the concept of Sustainable Development Goals (SDGs) initiated by the United Nations (UN). SDG No. 3 focuses on people's health and welfare, and one of its targets is to make it easier for people to obtain medicines [3].

These SDGs are particularly highlighted because we are still in the era of the COVID-19 pandemic. Apart from that, technological developments are now increasingly rapid, which is usually referred to as the era of society 5.0 [4]. Therefore, MSMEs are increasingly influenced by digital technology when running their business.

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With Digital Transformation, MSME managers can run their companies in a more environmentally friendly manner so that they are in line with the Green Economy concept [5].

Digital Transformation requires companies to rethink and innovate their Business Model (BM). Digital transformation changes the way MSMEs create value, which is known as added value [6]. This transformation is a process used to restructure the economy, institutions and society [7].

The existence of the social media phenomenon can change the way companies interact with customers. For example, providing services using a Big Data-based Information Technology system, so that customers are offered products/services that suit each person's tastes. This is not only relevant for marketing and customer relationship management. New data-based revenue models (New Data) can be developed without changing the basic business model of MSMEs [8].

Digital transformation and changes in BM are needed so that MSMEs can survive during the pandemic [9], 2021). COVID-19 and the lock-down/PPKM policy hit MSMEs, especially at the start of the pandemic in 2020. Income decreased. In some countries, as many as 25% to 50% of MSMEs are even forced to close temporarily [10].

Pharmacies can be considered as MSMEs, more precisely as Medium Enterprises. Specifically in Indonesia, digitalization occurs through the Halodoc application which helps pharmacies and drug stores sell their products online (online). In 2021, Halodoc claims that they are collaborating with more than 4000 pharmacies throughout Indonesia [11].

However, there are still pharmacies that have not experienced digitalization. This research seeks to find out the number of pharmacies that have collaborated with Halodoc in certain areas and whether digitalization has been driven by the pandemic. In addition, this research looks at whether digital transformation has a positive impact on pharmacies.

MSME digitalization efforts are supported by the Indonesian government in an effort to meet SDG targets [12]. However, the response of MSME owners to government policies is still unknown. This study aims to investigate whether the pharmacist in charge/pharmacy owner feels that the government's efforts are sufficient or still need to be improved. So, the results of this re-

search can contribute as input in designing government policies.

This research uses a positivistic paradigm, namely that data will be measured quantitatively [13] and an interpretative-phenomenological paradigm, which means data will also be collected qualitatively. Data collection was carried out using a questionnaire containing questions that would be answered by the respondent (pharmacist in charge/pharmacy owner) based on a Likert Scale. Data processing uses the SmartPLS version 3 program [14].

The objectives of this research are to find out the effect of Interprofessional Collaboration, Green Economy and Responsibility to the Government on Digital Transformation.

#### **B.** Research Method

#### 1. Literature Review

Pharmacies as MSMEs

The Central Statistics Agency (BPS) defines Small and Medium Enterprises (SMEs) based on the number of employees. Small businesses have 1 to 19 employees, while medium businesses have a minimum of 20 people and a maximum of 99 people [15].

According to Law No. 20 of 2008 concerning MSMEs, Medium Enterprises are "productive economic enterprises that stand alone, carried out by individuals or business entities that are not subsidiaries". It is also stated that Medium Enterprises "have net worth from IDR 500,000,000 (five hundred million rupiah) to a maximum of IDR 10,000,000,000 (ten billion rupiah) excluding land and buildings where the business is located", or "Have annual sales proceeds of more than IDR 2,500,000,000 (two billion five hundred million rupiah) up to a maximum of IDR 50,000,000,000 (fifty billion rupiah)" [16].

Based on the two definitions above, a pharmacy that is not a franchise can be considered a Medium Business. Pharmacies are also considered as Medium Enterprises in other countries, for example in Portugal [17].

### 2. Business Model and Business Model Innovation

Business Model (BM) is the way a company or group of companies collaborate at a strategic level and operational level to offer products and/ or services. In this effort, companies can use platforms, IT, or applications [18].

The many new opportunities driven by digitalization are putting pressure on SMEs to reconsider their BM. This can be used to identify new business opportunities [19]. BM in particular is able to demonstrate the logic that businesses use to exploit technology and generate profits, collaborating in creating value from technological innovation [19].

However, BM will not remain the same forever. When there is pressure, companies need to update BM. This process is called Business Model Innovation (BMI). [18] et al. defines BMI as "changes that occur in the framework of a BM (or its components) that are new to the company, and result in changes in the company's behavior towards its customers and partners" [18].

### 3. Digital Transformation/Digitalization and Big Data

Transformation is a comprehensive change in appearance, character and so on, which reciprocally affects individuals and groups [20]. Transformation includes "creation", namely changing from one form to a completely new form functionally and structurally [21].

The term "Digital Transformation" (also called "Digitalization") has different connotations for each company. The journey towards Digital Transformation begins with the creation of a digital version of a physical item or product. This step will lead to changes in business operations, models and competencies to adapt to available technologies, and this process will never end [22].

Pappas et al. designed a model that connects Digital Transformation, Big Data and their contribution to realizing sustainable societies. Big Data is a term that refers to the large amount of data generated online. Digital Transformation and Big Data are overhauling traditional businesses and endeavors, thereby encouraging innovation and evolution in the way of doing business [23]. Thus, company digitalization can be considered as BMI.

#### 4. Halodoc as Digital Transformation

The World Health Organization (WHO) defines mobile health (mHealth) as "health services supported by electronic devices, such as cell phones, electronic health devices, personal digi-

tal assistants (PDAs), and other wireless devices" [24]. Therefore, pharmacies collaborating with Halodoc are a form of digitalization, because pharmacy customers can buy pharmacy products via their electronic devices.

Halodoc is an electronic application that collaborates with doctors, pharmacies and health facilities throughout Indonesia to provide health services to patients online. One of Halodoc's superior health services is helping patients look for medicines at the nearest pharmacy which will then be delivered to the patient's home [11].

### 5. Contribution of Digital Transformation to the Green Economy

The Indonesian government defines Green Growth as "a 'green' policy, innovation and investment paradigm to encourage sustainable economic growth" [25]. The United Nations (UN) encourages countries in the world to develop a Green Economy and Green Growth through Sustainable Development Goals (SDG).

There are 17 SDGs, but the focus of this research is the third SDG (SDG-3), namely "Good Health and Well-Being". The SDGs are divided into several targets, one of which is expanding public access to obtain "safe, effective, quality and affordable medicines and vaccines" [3]□. So, digitizing pharmacies through collaboration with Halodoc can be seen as an effort to encourage the Green Economy in Indonesia because people can buy medicines without having to physically come to the pharmacy.

### 6. The Government's Role in Encouraging Digitalization and the Green Economy

The Indonesian government is committed to implementing policies that are expected to be able to meet the targets of all SDGs by 2030 [12]. There are already several policies from the government that aim to help digitalize SMEs, such as the MSME Page website belonging to the Ministry of Cooperatives and SMEs [26].

However, the level of digitalization of MSMEs is still low. As of March 2021, it was recorded that only 13% of all MSMEs in Indonesia utilized digital technology [27]. The government can play a bigger role in efforts to encourage the digitalization of MSMEs with various policies [28]. The results of this research can contribute to the design of new government policies in an effort to

encourage the digitalization of pharmacies and other MSMEs.

#### 7. Management Information System

MIS is an integrated system, both human and machine, that provides information to support the operations, management, and decision-making functions in an organization. This concept emphasizes the importance of system integration to provide relevant and timely information to various levels of management and operations in an organization and [29].

MIS is a network of procedures that process data within an organization and are combined when necessary to provide data both internally and externally. The goal is to support decision making to achieve organizational goals. Moekijat focuses more on procedures and data processing as part of an information system [30].

#### 8. Results of Previous Research

Fachrunnisa et al. researched Digital Transformation in MSMEs in Indonesia and Malaysia. They found that there is a positive relationship between strategic flexibility and the Digital Transformation process. Apart from that, agile leadership strengthens the relationship between strategic flexibility and Digital Transformation [31]. However, the study did not examine pharmacies. The research also did not examine whether MSME owners felt that the efforts of each country's government to encourage digitalization were adequate or not.

[32] Research by Peltoniemi et al. (2021) studied the digitalization of pharmacies in Finland, but from a different perspective. They found that digitalization of the drug prescribing process (ePrescription) made pharmaceutical services (filling out prescriptions and receiving drugs) faster. In addition, research results show that from a socio-technological perspective, digitalization of a group of pharmacies will encourage other pharmacies to participate [32]. The difference between this research and this research is that the digitalization process that occurred in Indonesia is different.

A patient still has to physically attend a pharmacy in Finland, whereas in Indonesia, a patient can redeem medication online and then have it delivered to the patient's home. Apart from that,

the research did not look at whether digitalization had a positive impact on pharmacies in terms of the number of sales of medicines/vitamins/other health products.

Based on the background that has been described, the author proposes the following three hypotheses:

- H1: Interprofessional Collaboration (X1) has a significant positive effect on Digital Transformation (Y).
- H2: Green Economy (X2) has a significant positive effect on Digital Transformation (Y). H3 is accepted
- H3: Responsibility to the Government (X3) has a significant positive effect on Digital Transformation (Y).
- H4: Interprofessional Collaboration (X1), Green Economy (X2) and Responsibility to the Government (X3) simultaneously have significant positive effect on Digital Transformation (Y).

#### C. Research Conceptual Framework

The conceptual framework in research consists of concepts and assumptions that are combined, so that they can describe cause and effect relationships about what is being studied [33]. In this research we study the digitalization of MSMEs (pharmacies) and their contribution to Sustainable Development Goals-3 "Good Health and Well-Being" in realizing a Green Economy in Indonesia.

Therefore, the author designed a model that describes the cause-and-effect relationship between 4 factors, namely: Interprofessional Collaboration, Green Economy, Responsibility to the Government and Digital Transformation. These four factors are interconnected through 4 hypotheses proposed by the author.

#### D. Research Model

Coral et al. stated that a model contains hypotheses that are connected to factors and variables which are then tested. A model is a manifestation of a detailed theory or framework. The model includes testable independent and dependent variables [34]. Based on the Conceptual Framework described previously, the author proposes a model to be studied as follows:

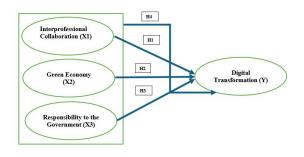


Figure 1: Research Conceptual Model

fessional Collaboration X2: Green Economy

X3: Responsibility to the Government

Y: Digital Transformation

#### F. Results

Table 1. Multiple linear regression analysis

Model	Unstandardrized Coefficient		4	C:-
Model	В	Std. Error		Sig.
(Constant)	7,712	2,064	3,736	0,000
Interprofessional Collaboration (X1)	0,224	0,055	4,107	0,000
Green Economy(X2)	0,086	0,039	2,204	0,029
Responsibility to the Government(X3)	0,521	0,106	4,915	0,000

Source: Researcher Processing, 2024

#### 1. Multiple Regression Analysis

Constant is the alpha value of the regression equation  $Y = \alpha + \beta 1X1 + \beta 2X2 + \beta 3X3$ . While for rows X1, X2, X3 are the regression coefficients of each independent variable ( $\beta 1$ ,  $\beta 2$ ,  $\beta 3$  in the linear regression equation). So the regression model obtained above is as follows:

(Y) Digital Transformation = 7.712 + 0.224 Interprofessional Collaboration + 0.086 Green Economy + 0.521 Responsibility to the Government

The results of the multiple linear regression equation in table 1 above can be interpreted that:

- 1. The constant (α) has a positive value of 7.712 which indicates that there is a unidirectional influence between the independent and dependent variables. This means that if Interprofessional Collaboration, Green Economy and Responsibility to the Government are 0 or fixed, then the magnitude of Digital Transformation is 7.712.
- 2. The regression coefficient for the Interprofessional Collaboration (X1) variable in the table above is 0.224 with a positive and unidirectional coefficient indicating that the

- Interprofessional Collaboration (X1) variable has a unidirectional relationship with Digital Transformation (Y). This means that if it is assumed that the Interprofessional Collaboration (X1) variable increases by 1 variance, it can provide an increasing effect on Digital Transformation (Y) of 0.224 variances to a significance of 0.000.
- 3. The regression coefficient for the Green Economy (X2) variable in the table above is 0.086 with a positive and unidirectional coefficient indicating that the Green Economy (X2) variable has a unidirectional relationship with Digital Transformation (Y). This means that if it is assumed that the Green Economy (X2) variable increases by 1 variance, it can provide an increasing effect on Digital Transformation (Y) of 0.086 variances to a significance of 0.029.
- 4. The regression coefficient for the variable Responsibility to the Government (X3) in the table above is 0.521 with a positive and unidirectional coefficient indicating that the variable Responsibility to the Government (X3) has a unidirectional relationship with Digital Transformation (Y). This means that if it is assumed that the variable Responsibility to the Government (X3) increases by 1 variance, it can have an increasing effect on Digital Transformation (Y) of 0.521 variance to a significance of 0.000.

Table 2. Correlation and Determinating Test

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0,583a	0,340	0,327	1,82206		
		nt), Responsib aboration (X1		t(X3), Green Economy(X2),		
Sou	ırce: Resea	rcher Processi	ng, 2024			

#### 2. Results of Multiple Correlation Test

Based on table 2 above, it shows that the independent variables, namely Interprofessional Collaboration (X1), Green Economy (X2) and Responsibility to the Government (X3) have a positive and significant relationship simultaneously or together with the dependent variable, namely Digital Transformation (Y). This positive relationship is evidenced by the R value of 0.583. 4.3.6 Determination Coefficient Test (Adjusted R2) The Determination Coefficient (R Square or R Square) or symbolized by "R2" has the meaning as the contribution of the influence given by the independent variable (X) to the variable (Y). Or in other words, the value of the determination coefficient (Rsquare) is useful for predicting and seeing how much contribution the influence given by variable X simultaneously (Together) to variable Y.

The basis for making a decision on the determination coefficient test (R2) is, if the determination coefficient value is equal to 0 (R2 = 0), it means that the variation of Y cannot be explained by X at all. Meanwhile, if R2 = 1, it means that the variation of Y as a whole can be explained by X. In other words, if R2 = 1, then all observation points are right on the regression line.

### 3. Results of the Determination Coefficient Test (Adjusted R2)

Based on the output value of the "Model Summary" on table 2 above, the Adjusted R Square value is known to be 0.327.

The determination coefficient value is known to be 0.327 or 32.7%. This means that the variables Interprofessional Collaboration (X1), Green Economy (X2) and Responsibility to the Government (X3) affect the Digital Transformation (Y) variable by 32.7%. While the rest is influenced by other variables outside this regression equation.

Table 3. Hypothesis Test (t-Test)

No.		andardized efficients	Standardized Coefficients	t	Sig.
Model	В	Std. Error	Beta		
1 (Constant)	7,712	2,064		3,736	0,000
Interprofessional Collaboration (X1)	0,224	0,055	0,299	4,107	0,000
Green Economy(X2)	0,086	0,039	0,157	2,204	0,029
Responsibility to the Government(X3)	0,521	0,106	0,344	4,915	0,000

Source: Researcher Processing, 2024

#### 4. Hypothesis Testing

Based on table 3 above it is known that the Sig. value for the influence of Interprofessional Collaboration (X1) on Digital Transformation (Y) is 0.000 <0.05 and the t-value is 4.107> t table 1.976. So it can be concluded that H0 is rejected and Ha is accepted, meaning that there is a significant influence of the Interprofessional Collaboration (X1) variable on Digital Transformation (Y).

It is known that the Sig. value for the influence of Green Economy (X2) on Digital Transformation (Y) is 0.029 <0.05 and the t-value is 2.204> t table 1.976. So it can be concluded that H0 is rejected and Ha is accepted, meaning that there is a significant influence of the Green Economy (X2) variable on Digital Transformation (Y).

It is known that the Sig. value for the influence of Responsibility to the Government (X3) on Digital Transformation (Y) is 0.000 <0.05 and the t-value is 4.915> t table 1.976. So it can be concluded that H0 is rejected and Ha is accepted, meaning that there is a significant influence of the variable Responsibility to the Government (X3) on Digital Transformation (Y).

Table 4. Summary of t-Test Results

Hipotesis	Hasil Uji Hipotesis
H1: Interprofessional Collaboration (X1) has a significant positive effect on Digital Transformation (Y).	H1 can not be rejected
H2: Green Economy (X2) has a significant positive effect on Digital Transformation (Y). H3 is accepted	H2 can not be rejected
H3: Responsibility to the Government (X3) has a significant positive effect on Digital Transformation (Y).	H3 can not be rejected
H4: Interprofessional Collaboration (X1), Green Economy (X2) and Responsibility to the Government (X3) simultaneously have significant positive effect on Digital Transformation (Y).	H4 can not be rejected

Source: Researcher Processing, 2024

Table 5. ANNOVA Test (F-Test)

		AN	OVA <sup>a</sup>			
M	odel	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	251.721	3	83.907	25.274	.000
	Residual	488.027	147	3.320		
	Total	739.748	150			
a.	Dependent Variab	le: Digital Transformat	ion(Y)			
b.	Predictors: (Const	ant), Responsibility to	the Go	vernment(X3), Gree	en Econom	y(X2),
In	terprofessional Co	llaboration (X1)				
	Source: Res	earcher Processing, 20	24			

#### 5. F-Test Results

Based on the significance value (Sig.) of the ANOVA output above, it is known that the Sig. value is 0.000 <0.05 and the calculated F is 25.274> F table 2.665. So according to the basis for decision making in the F test, it can be concluded that H0 is rejected and Ha is accepted. This means that together the variables Interprofessional Collaboration (X1), Green Economy (X2) and Responsibility to the Government (X3) have

a significant effect on the Digital Transformation (Y) variable.

Based on the two discussions in the F test above, we can conclude that together the variables Interprofessional Collaboration (X1), Green Economy (X2) and Responsibility to the Government (X3) have a significant effect on the Digital Transformation (Y) variable.

#### H. Discussion

## 1.The Effect of Interprofessional Collaboration (X1) on Digital Transformation (Y).

This study shows a significant positive effect between Interprofessional Collaboration (X1) and Digital Transformation (Y). This can be shown from the significance value in the t-test, which is 0.000 <0.005 and the calculated t has a value of 4.107> t table 1.976. In addition, from the results of the correlation coefficient test between the Interprofessional Collaboration and Digital Transformation variables, it has a value of 0.445. Where the correlation coefficient number is positive or has a unidirectional relationship. So if the Interprofessional Collaboration variable increases, the Digital Transformation variable will also increase. Therefore, the first hypothesis in this study can be accepted.

### 2. The Effect of Green Economy (X2) on Digital Transformation (Y)

This study shows a significant positive influence between Green Economy (X2) on Digital Transformation (Y). This can be shown from the significance value in the t-test, which is 0.029 <0.005 and the calculated t has a value of 2.204> t table 1.976. In addition, from the results of the correlation coefficient test between the Green Economy and Digital Transformation variables, it has a value of 0.319. Where the correlation coefficient number is positive or has a unidirectional relationship. So if the Green Economy variable increases, the Digital Transformation variable will also increase. Therefore, the second hypothesis in this study can be accepted.

#### 3. The Effect of Responsibility to the Government (X3) on Digital Transformation (Y)

This study shows a significant positive effect between Responsibility to the Government (X3) on Digital Transformation (Y). This can be shown from the significance value in the t-test, which is 0.000 < 0.005 and the calculated t has a value of 4.915 > t table 1.976. In addition, the results of the correlation coefficient test between the Responsibility to the Government and Digital Transformation variables have a value of 0.456. Where the correlation coefficient number is positive or has a unidirectional relationship. So if the Responsibility to the Government variable increases, the Digital Transformation variable will also increase. Therefore, the third hypothesis in this study can be accepted.

#### 4. The Influence of Interprofessional Collaboration (X1), Green Economy (X2) and Responsibility to the Government (X3) on Digital Transformation (Y)

Based on the significance value (Sig.) of the ANOVA output above, the Sig. value is 0.000 <0.05 and the calculated F is 25.274> F table 2.665. So according to the basis for decision making in the F test, it can be concluded that H0 is rejected and Ha is accepted. This means that together the variables Interprofessional Collaboration (X1), Green Economy (X2) and Responsibility to the Government (X3) have a significant effect on the Digital Transformation (Y) variable. Therefore, the fourth hypothesis in this study can be accepted.

The discussion of the research results has been carried out by researchers from the pre-test to the main-test. This process begins with a validity test to a hypothesis test with a discussion of the results of the pre-test to main-test analysis as follows: 1. Based on the validity test that has been conducted on 30 initial respondents (pre-test), all items in this study are declared valid as evidenced by the Pearson Correlation value of each variable which is greater than r table 0.361. In the Interprofessional Collaboration variable (X1) the highest validity test is in question item CM 2 with a value of 0.794 and the one with the lowest validity value is in question item CM 7 with a value of 0.500. In the Green Economy variable (X2) the question item with the highest validity value is in question EWM 10 with a value of 0.757 and the lowest validity is in question EWM 11 with a value of 0.544. In the Responsibility to the Government variable (X3) the question item with the highest validity value is in question BI 3 with a value of 0.891 and the lowest validity value is in question BI 1 with a value of 0.841. Based on the significance value (Sig.) of the ANOVA output above, it is known that the Sig. value is 0.000 <0.05 and the calculated F is 25.274> F table 2.665. So according to the basis for decision making in the F test, it can be concluded that H0 is rejected and Ha is accepted. This means that together the variables Interprofessional Collaboration (X1), Green Economy (X2) and Responsibility to the Government (X3) have a significant effect on the Digital Transformation (Y) variable.

Based on the two discussions in the F test above, we can conclude that together the variables Interprofessional Collaboration (X1), Green Economy (X2) and Responsibility to the Government (X3) have a significant effect on the Digital Transformation (Y) variable.

#### H. Conclusion

Based on the results and discussions that have been conducted, the following conclusions can be drawn:

- 1. The Interprofessional Collaboration variable (X1) has a significant positive influence on Digital Transformation (Y).
- 2. The Green Economy variable (X2) has a significant positive influence on Digital Transformation (Y).
- 3. The Responsibility to the Government variable (X3) has a significant positive influence on Digital Transformation (Y).
- 4. The Interprofessional Collaboration (X1), Green Economy (X2), and Responsibility to the Government (X3) variables together have a significant positive influence on Digital Transformation (Y).

#### Research Limitation and Recommendation

This study has weaknesses and limitations, namely the limited time of the study, so suggestions for further researchers are:

- 1. Using different research objects;
- 2. Looking for other variables that influence customer engagement.

#### H. Acknowledgments

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#### References

- [1] N. Burger, C. Chazali, A. Gaduh, A. D. Rothenberg, I. Tjandraningsih, and S. Weilant, Reforming policies for small and medium-sized enterprises in Indonesia. RAND Corporation, 2015.
- [2] L. Georgeson, M. Maslin, and M. Poessinouw, "The global green economy: a review of concepts, definitions, measurement methodologies and their interactions," Geo, vol. 4, no. 1, p. e00036, 2017.
- [3] World Health Organization, mHealth: New horizons for health through mobile technologies, vol. 3. 2011.
- [4] C. Narvaez Rojas, G. A. Alomia Peñafiel, D. F. Loaiza Buitrago, and C. A. Tavera Romero, "Society 5.0: A Japanese concept for a superintelligent society," Sustainability, vol. 13, no. 12, p. 6567, 2021.
- [5] A. Pangarso, K. Sisilia, R. Setyorini, Y. Peranginangin, and A. A. Awirya, "The long path to achieving green economy performance for micro small medium enterprise," J Innov Entrep, vol. 11, no. 1, pp. 1–19, 2022.
- [6] A. Bharadwaj, O. A. El Sawy, P. A. Pavlou, and N. v Venkatraman, "Digital business strategy: toward a next generation of insights," MIS quarterly, pp. 471–482, 2013.
- [7] N. C. Jenn, "Designing a questionnaire," Malays Fam Physician, vol. 1, no. 1, p. 32, 2006.
- [8] C. Loebbecke and A. Picot, "Reflections on societal and business model transformation arising from digitization and big data analytics: A research agenda," The journal of strategic information systems, vol. 24, no. 3, pp. 149–157, 2015.
- [9] Deloitte, "Realising the potential of Indonesia's digital economy," 2021, Deloitte Indonesia Perspectives.
- [10] A. Takeda, H. T. Truong, and T. Sonobe, "The impacts of the COVID-19 pandemic on micro, small, and medium enterprises in Asia and their digitalization responses," J Asian Econ, vol. 82, p. 101533, 2022.
- [11] M. A. K. Mochammad Aldi Kushendriawan, H. B. S. Harry Budi Santoso, P. O. H. Putra,

- P. O. H. Putra, and M. S. Martin Schrepp, "Evaluating User Experience of a Mobile Health Application Halodoc using User Experience Questionnaire and Usability Testing," Jurnal Sistem Informasi (Journal of Information System), vol. 17, no. 1, pp. 58–71, 2021.
- [12] Bappenas, "Roadmap of SDGs Indonesia : A Highlight," pp. 27–36, 2019.
- [13] G. Ryan, "Introduction to positivism, interpretivism and critical theory," Nurse Res, vol. 25, no. 4, pp. 41–49, 2018.
- [14] J. F. Hair, J. J. Risher, M. Sarstedt, and C. M. Ringle, "When to use and how to report the results of PLS-SEM," European business review, vol. 31, no. 1, pp. 2–24, 2019.
- [15] J. Jauhari, "Upaya pengembangan usaha kecil dan menengah (UKM) dengan memanfaatkan e-commerce," JSI: Jurnal Sistem Informasi (E-Journal), vol. 2, no. 1, 2010.
- [16] T. Trisnawati, "Kajian Inovasi Sektor Usaha Kecil Menengah (UKM) dengan Pendekatan Sistem Dinamis," Jurnal Akuntansi, Ekonomi dan Manajemen Bisnis, vol. 4, no. 1, pp. 60–67, 2016.
- [17] A. Aguiar, L. Martins, and F. Batel-Marques, "Pharmacies and the Economic Crisis in Portugal: A Case-Study," Int J Health Sci (Qassim), vol. 3, pp. 43–47, Jun. 2015, doi: 10.15640/ijhs.v3n2a7.
- [18] H. Bouwman, S. Nikou, and M. De Reuver, "Digitalization, business models, and SMEs: How do business model innovation practices improve performance of digitalizing SMEs?," Telecomm Policy, vol. 43, no. 9, p. 101828, 2019.
- [19] T. Winter, "Cultures of interpretation," in Heritage and Tourism, Routledge, 2013, pp. 172–186.
- [20] S. Sunarti, J. A. Syahbana, and A. Manaf, "Space transformation in a low-income housing community in Danukusuman, Surakarta," International Journal of Housing Markets and Analysis, vol. 12, no. 2, pp. 265–280, 2019.
- [21] H. Lucas Jr, R. Agarwal, E. K. Clemons, O. A. El Sawy, and B. Weber, "Impactful research on transformational information technology: An opportunity to inform new audiences," Mis Quarterly, pp. 371–382, 2013.

- [22] R. Rupeika-Apoga, L. Bule, and K. Petrovska, "Digital transformation of small and medium enterprises: Aspects of public support," Journal of Risk and Financial Management, vol. 15, no. 2, p. 45, 2022.
- [23] I. O. Pappas, P. Mikalef, M. N. Giannakos, J. Krogstie, and G. Lekakos, "Big data and business analytics ecosystems: paving the way towards digital transformation and sustainable societies," 2018, Springer.
- [24] W. H. Organization, "Towards Access 2030: WHO Medicines and Health Products Programme Strategic Framework 2016–2030, 2017," 2018.
- [25] Global Green Growth institute, "Green Growth Concept and Definitions (Issue October 2014).," 2014.
- [26] Deloitte, "Thailand Digital Transformation Survey Report 2021 The Impact of COVID-19," Deloitte, 2021.
- [27] A. A. Saefuloh, "Transformasi UMKM Go Digital Dalam Mendukung Pemulihan Ekonomi RUU Provinsi NTT Urgensi Penyusunan RUU PTUK," vol. 1, 2021.
- [28] Organization for Economic Co-operation and Development [OECD], "The Digital Transformation of SMEs," OECD Publishing, pp. 1–4, 2021.
- [29] G. B. Davis, "Kerangka dasar sistem informasi manajemen," 1991.
- [30] Moekijat, Manajemen Personalia dan Sumber Daya Manusia. 1995.
- [31] O. Fachrunnisa, A. Adhiatma, N. Lukman, and M. N. Ab Majid, "Towards SMEs' digital transformation: The role of agile leadership and strategic flexibility," Journal of Small Business Strategy, vol. 30, no. 3, pp. 65–85, 2020.
- [32] T. Peltoniemi, R. Suomi, S. Peura, and M. N. Y. Lähteenoja, "Electronic prescription as a driver for digitalization in Finnish pharmacies," BMC Health Serv Res, vol. 21, pp. 1–9, 2021.
- [33] E. H. Tamene, "Theorizing conceptual framework," Asian Journal of Educational Research Vol, vol. 4, no. 2, pp. 50–56, 2016.
- [34] C. Coral and W. Bokelmann, "The role of analytical frameworks for systemic research design, explained in the analysis of drivers and dynamics of historic land-use changes," Systems, vol. 5, no. 1, p. 20, 2017.