How MSME Financial Inclusion & MSME IoT E-Commerce Play a Role in the Indonesian Economy

Dr. Hermien Triyowati, M.S.[1], Mentari Wahyuningsih, S.E., M.E.[2]

[1]Professor, Faculty of Economy and Business, Trisakti University, Jln. Kyai Tapa, No: 1, Grogol, 14440, Jakarta, Indonesia
Corresponding Author E-mail: *hermien.triyowati[at]trisakti.ac.id*
ORCID: https://orcid.org/0000-0002-1996-1675000000000

[2]Associate Professor, Faculty of Economy and Business, Trisakti University, Jln. Kyai Tapa, No: 1, Grogol, 14440, Jakarta, Indonesia
E-mail: mentari_violet[at]gmail.com
ORCID: https://orcid.org/0000-0002-4370-0854

Abstract: *The Covid-19 pandemic that has occurred since 2020 has slowed the Indonesian economy, growing negatively by 2.7%. Various policies were created to restore the economy, especially for MSMEs, including the addition of inclusive financing, suspension of credit, and lower interest expenses. This situation, coupled with the changing behavior of MSMEs, is starting to use digital transactions via IoT e-commerce, to increase their sales. The current phenomenon, in the second quarter – of 2021, the Indonesian economy grew by 7.7 percent, the increase in IoT e-commerce by 38% and the increase in Indonesia's exports was the highest compared to previous years. This study is to determine the development of MSMEs, related to inclusive financing and the use of IoT e-commerce, in particular how they contribute to GDP, exports, and Indonesia's economic growth. By using secondary data from 2017 to. In quarter III/2021, for various main research variables, and data analysis using the Path Mediated method, it was found that inclusive financing for MSMEs made a significant contribution to GDP growth with a total effect of 39.40%. Meanwhile, the use of e-commerce by MSMEs indirectly and significantly contributed to GDP growth of only 2.63%. On the other hand, these two events have absolutely nothing to do with the export growth of the contribution of MSMEs and Indonesia's economic growth (measured by the growth of GNI per capita), which means that both the increase in exports and Indonesia's current economic growth are influenced by other factors outside the model.*

Keywords: Financial Inclusive, IoT E-commerce, MSME development, GDP-MSME growth rate, Export, Indonesia's Economic Growth.

JEL Classification: O15, E41, L4

1. Introduction

1.1 Research Background

Since mid-February 2020, the COVID-19 pandemic in Indonesia has been a source of great anxiety and stress among the population, along with tightening government regulations regarding spread control measures, it has become increasingly important to manage and develop good mental wellbeing practices, which cannot be ignored (Amar, Manoj, 2020). Although various efforts and implementation of this policy were followed by the community, for MSMEs, this incident made it difficult to absorb their products. According to Rosita, 2020, MSMEs are the type of economic business most affected by the COVID-19 pandemic. This also occurs in the automotive industry, steel industry, electrical equipment, textile industry, handicrafts, heavy equipment, and tourism, reducing people's purchasing power and Indonesia's economic growth (Dito, E., Iskandar, M., 2020).

On the other hand, since 2017, the development of IoT (Internet of things) is quite rapid. IoT is a technology that allows sharing of data between devices connected via the internet. IoT is known as E-commerce and financial technology (Fintech) in the business world.E-Commerce is various forms of goods/services trade transactions, using electronic media, including electronic transfer of funds, electronic data exchange, automatic inventory management system, and automatic data collection system. While financial technology is a technological innovation developed

in the financial sector so that financial transactions can be carried out in a practical, easy and effective manner. Thus, the most important benefit of business process automation is to help save money and time, provide a better customer experience and manage everything more effectively (Jayanta, 2020).

The collaboration of financial technology and e-commerce has proven to be able to increase the average purchase value and transaction frequency, which proves the increasingly solid role of the digital ecosystem during the pandemic, especially in helping to maintain people's purchasing power (Yose, A., Dandy, 2021). Surveys from the World Economic Forum, 2020, show that companies that have invested and adopted new technologies in the past, managed to reap rewards during the COVID-19 crisis, for example, Siemens, have implemented up to 80% automation, and have suffered only minor losses during the Covid pandemic.

In Indonesia, this fact changes the behaviors of MSMEs and classifies them into three business clusters, namely (a) businesses that survive, (b) businesses that decline, and (c) businesses that develop (Taufik, Eka, 2020). This change is related to the nature of the business and the efforts of MSMEs to use digital platforms. This incident significantly increased the use of e-commerce by 38%, most of which is done by big businesses, while small businesses are still not realizing the potential and benefits of IoT (Nory, C. Matt, 2020).

The fact because Indonesia's economy is slowing, due to the COVID-19 pandemic, since 2020, the government has

launched a National Economic Recovery Program, in particular, to support the economic recovery of MSMEs, through the provision of inclusive financing, tax reductions, productive capital assistance, and others. Micro-inclusive policies for MSMEs have been implemented since 2014 (Bank Indonesia, 2014), both manually and digitally (Financial Services Authority/OJK, 2019). United Nations Capital Development Fund (UNCDF), 2019, positions financial inclusion as a supporter of the achievement of SDGs in 2030. This statement is evidenced by empirical findings, that financial inclusion activities through the distribution of Zakat, Infaq, and Shodaqoh, are predicted to achieve goals 1, 3, and 4 of the SDGs in 2030 (Hermien, T. et al., 2018);

In addition, inclusive financial services through Sharia MFIs have succeeded in increasing the development of MSMEs, reducing poverty and unemployment, and increasing GRDP (Hermien, T., Yolanda, M., 2016). These various efforts are thought to have succeeded in increasing exports in October 2021 by 6.89 percent and increasing Indonesia's economic growth in Q II/2021 by 7.7 percent (Trading Economics Analytical, 2021).

1.2 Research Objectives and Benefits

The development of IoT, which has penetrated financial technology and digital marketing, requires business people to innovate, adapt activities to existing conditions, to survive. However, because it is a new technological invention that has never existed, there are no precise rules governing how the technology should work.

The National Financial Literacy Survey in Indonesia shows a financial literacy index of 38.03% and a financial inclusion index of 76.19%. This means that the provision of access, use, and quality of inclusive financial services is good enough, but public understanding to make effective decisions in managing inclusive finance is still low.

Thus, the purpose of this study is to determine the development of MSMEs that have utilized IoT E-commerce and obtain inclusive micro-financing, as well as analyze their impact on the GDP of MSME contributions, MSME export performance, and Indonesia's economic growth. By knowing the results of the research, it can be informed of various facts or various obstacles that are useful as material to improve or increase the effectiveness of the implementation of various related policies, which are deemed inappropriate or not by the existing situation

2. Literature Review

2.1 Theoretical and Conceptual Background

a) MSME, Financial Inclusion, Innovative Financial Inclusion, and GDP Growth

MSMEs are the most important pillars of the Indonesian economy. Based on data from the Ministry of Cooperatives and SMEs, the number of MSMEs currently reaches 64.2 million with a contribution to GDP of 61.07% or worth 8, 573.89 trillion rupiahs. The contribution of MSMEs to the

Indonesian economy includes the ability to absorb 97% of the total workforce and can collect up to 60.4% of the total investment (Haryo, L., 2021).

Meanwhile, **financial inclusion** is a condition where individuals/businesses have access to financial service products, and are responsible and sustainable, especially for the **unbanked people**. The objectives of financial inclusive are (a) providing access at a reasonable cost to a wide range of financial services; (b) administrative and institutional, governed by clear regulations and performance standards; (c) the existence of financial and institutional sustainability to ensure the continuity and certainty of investment; (d) competition to ensure choice and affordability for clients (Cahyono, S., Eddy, 2013).

The G20 Summit - Toronto, formulated the "**9 Principles of Innovative Financial Inclusion**", as guidelines for developing financial inclusion, including leadership, diversity, innovation, protection, empowerment, cooperation, knowledge, proportionality, and framework. These principles govern **innovative financial inclusion policies**, by (i) promoting the security and delivery of innovative, adequate, and low-cost financial inclusion services; (ii) providing framework assistance and incentives for actors, ensuring fair competition, and (iii) growing financial services, according to customer needs in terms of quality and reach (AFI, 2015).

In response to this, the Indonesian Financial Services Authority (2016), issued a regulation (a) No.77/ POJK.01/2016, concerning **Information Technology Based Borrowing Lending Services** or **Peer-to-Peer (P2P) Lending**, which is expected to meet cash needs quickly, easily, and efficiently, as well as increase competitiveness, and being a solution for MSME actors in obtaining access to funding, and (b) No.13/POJK.02/2018, Article 12 (3) concerning **Digital Financial Innovation** in the Financial Services Sector.

The influence of Financial Inclusion on the development of MSMEs was examined in empirical research by Hermien, T., Yolanda, M., 2016, and found that financial inclusion through micro, small, and medium enterprises financing, **affects MSME development** (institutional and workforce), MSME Entrepreneurship (promotion and empowerment) and alleviation Poverty. In addition, empirical research from Dai Won Kim et.al., 2018, examines the relationship between financial inclusion and economic growth in 55 countries of the Organization of Islamic Cooperation (OIC). The research findings show that **financial inclusion has a positive effect on economic growth** in OIC countries, besides that financial inclusion and economic growth **have reciprocal causality** with each other.

Considering some of the explanations above, it can be concluded that:

1) Inclusive financing for MSMEs affects **MSME development**
2) Inclusive financing for society affects **national economic growth.**

b) National Economy Recovery Program (NERP) and MSME Development.

In 2021, Indonesia has launched the **National Economic Recovery Program** (**NERP),** which is a government program, and is intended as a program for survival and recovery, as well as to ensure more effective handling of the COVID-19 pandemic. NERP is specifically intended for **Ultra Micro** and **MSME entrepreneurs**, among others (1) Deferral of principal and interest, (2) Interest Subsidy for Credit, (3) Tax incentives, (4) Working Capital Loan Guarantee (micro inclusive financing), and (5) Guarantee Fee (Ministry of Finance of the Republic of Indonesia, 2021). In this paper, because the National Economic Recovery Program for MSMEs includes several policies, the data used are specifically related to **inclusive micro-financing for MSMEs**, **in digital form (fintech).**

Associated with this, Marginingsih, R., 2021, conducted an empirical study related to the use of Financial Technology (Fintech) in National Financial Inclusion during the Covid-19 Pandemic. The results of empirical research show that **Fintech has a positive impact**, helping the community in financial transactions. NERP and **increasing GDP** can be done **by strengthening Fintech regulations** that are inclusive, sustainable, and have the potential to trigger the digital financial services industry.

c) Internet of Things (IoT), MSME Development, and Economic Growth.

Today, the Internet of Things is a technology that has provided a new direction for the growth of MSMEs. IoT presents opportunities such as remote monitoring, proactive maintenance, reduced communication efforts, and costs. A trained and skilled workforce is a very expensive and scarce resource for MSMEs. IoT-based solutions and automation can reduce the dependence on a skilled workforce by a significant proportion. Thus, IoT helps **reduce most of the costs**, which is an important parameter for **MSMEs**, and they are already starting to understand what IoT technology can do for their business (A Four Technologies, 2021).

Rosnita, W., 2019, conducted an empirical study, by identifying the factors that influence MSME decisions to use e-commerce, and analyzing its impact on their business performance, to promote Financial Inclusion (FI) in Indonesia. The results show that the decision to use e-commerce is influenced by sales turnover, social media, duration, and business age. From the FI's perspective, it was revealed that the effect of e-commerce on business performance is represented by **sales growth** and **increasing FI's competitive advantage**, among MSME users of e-commerce.

Furthermore, the results of an empirical study by Sandra, A., Lahmi, 2020, concluded that e-commerce plays a role in the Indonesian economy. For business players, e-commerce is a solution to **increase business scale**, understanding market trends and behavior, marketing reach, and encouraging business people to adapt to conditions during a pandemic and technology. For the government, the existence of e-commerce increases state revenue from the tax sector and

national economic growth. Data from Research and Market states that the growth of the e-commerce market in Indonesia is predicted to reach US$ 21.2 billion with a CAGR growth rate of 37.4% in 2020. So, it can be concluded that e-commerce provides positive benefits for **Indonesia's economic growth**, which decreased due to the Covid-1 pandemic.

Based on some of the explanations above, it can be concluded that:

1) The use of e-commerce by MSMEs affects the development of MSMEs (increase business scale or sales growth)
2) The use of e-commerce by MSMEs affects Indonesia's economic growth.

d) MSME and Exports

In Indonesia, the contribution of MSMEs to **increasing exports is still minimal/low.** There are **five obstacles for MSMEs** to penetrate the export market: (1) **lack of knowledge** regarding business legality, export & import restrictions, trade, food certification, halal certification, and the high cost of certification: (2) **difficulty in obtaining access to financing** from banks/financial institutions, process loan application, complicated, and lack of bookkeeping, (3) **lack of assistance** for MSMEs in improving quality, product competitiveness and management, (4) **lack of product quality standards**, production inconsistency and unsustainability (5) **marketing problems**, limited information about opportunities market, lack of promotion, and lack of financial literacy (Agatha, O, V., 2021).

According to the Minister of Cooperatives and SMEs, 2019, the contribution of the MSME sector to GDP reached 60.23% of the approximately 64 million MSME entrepreneurs. The export value of MSME products is 14.5%. This export comes from medium-sized businesses (U.K.M.C., U.I., 2018). On the other hand, the coordinating minister for the Economy (2021), stated that, overall, Indonesia's exports in August 2021 reached USD 21.42 billion, or an increase of 20.95% every month. This export value reached the highest value, compared to August 2011, amounting to 18.6 billion US dollars.

Besides, an empirical study from Namita, R. et al., 2017, examines the causal relationship between exports, MSMEs, and foreign exchange reserves in India, and proves that there is **a strong causal relationship** between **MSMEs and exports**, which helps increase **foreign exchange reserves**, and very important for the economic development of a country.

From these various explanations, it can be concluded that the development of MSME also **contributes to export performance**.
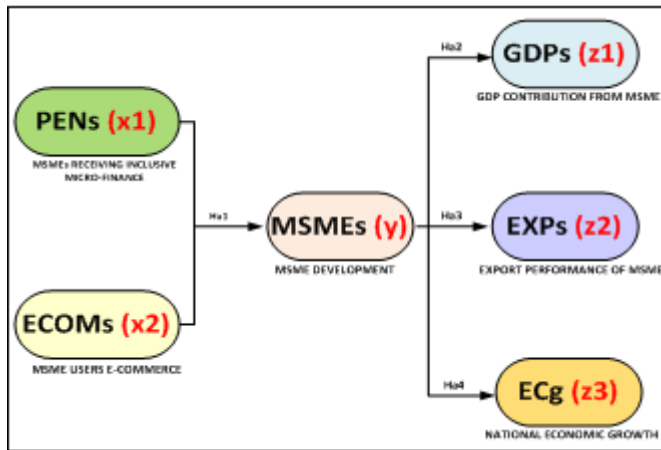
3. Conceptual Framework

Figure 1: Conceptual Framework of the Study
Source: Authors

Description:

PENs (x_1)	The development of inclusive financing for MSMEs
ECOMs(x_2)	The development of IoT E-commerce Transactions by MSMEs
MSMEs	The development of MSME
MSMEs (y)	The development of the contribution of GDP by MSME
GDPs (z_1)	The development of the contribution of GDP by MSME
EXPs (z_2)	The development of the performance of Exports by MSME
ECg (z_3)	Indonesia's Economic Growth (Indonesia's GDP per capita growth rate)

Empirical Review and Hypothesis Development

The National Economic Recovery Program (NERP) for MSMEs aims to revive the MSME sector, namely by providing interest subsidy support, tax incentives, and guarantees for new MSME working capital loans (Financial Services Authority/OJK, 2018). The implementation of this program is expected to have an effect on the development of micro, small and medium enterprises (MSMEs). In this case, one of the realizations of the NERP program for MSMEs is the provision of inclusive financing for MSMEs, which we call PENs. In addition, behavioral changes, both from the producer side and the consumer side are marked by a shift in money from the upper-middle class to the people's economy (T, S, Kaskus, 2017; Fika et al., 2020). This is indicated by the increase in E-Commerce activity, up to 38% significantly (Dewi, A. et al., 2021). Thus, it is estimated that e-commerce activities by MSMEs (ECOMs) will also affect the development of MSMEs. From this statement, the following hypothesis can be formulated:

Ha 1: **PENs** and **ECOMs** influence the development of micro small and medium enterprises **(MSMEs).**

According to Valentino, V., 2021, the development of micro, small and medium enterprises (MSMEs) which is influenced by the implementation of the NERP program, and e-commerce activities by these MSMEs, is estimated to have an impact on the GDP contribution of micro, small and medium enterprises (GDPs). Became the cause of Indonesia's "highest" trade balance surplus, compared to

previous years, which was obtained from an increase in Indonesian exports (EXPs).

In addition, the facts show that in QII 2021, the Indonesian economy (ECg) is stated to grow by 7.7% (Central Bureau of Statistics/BPS, 2021). The existence of disruption innovation, which has hit the Indonesian business world since 2017, accompanied by the development of IoT in the business world, is shown by a significant increase in E-Commerce activities, which is very helpful in absorbing MSME products, resulting in an increase in output (GDPs), export performance (EXPs) and economic growth (ECg). From this incident, several hypotheses can be formulated, as follows:

Ha 2: **PENs** and **ECOMs** affect the contribution of gross domestic product, from micro small, and medium enterprises (**GDPs**), mediated by the development of micro small, and medium enterprises (**MSMEs**).

Ha 3: **PENs** and **ECOMs** affect the export performance of micro, small and medium enterprises (**EXPs**), mediated by the development of micro, small and medium enterprises (**MSMEs**).

Ha 4: **PENs** and **ECOMs** affect Indonesia's economic growth (**ECg**), mediated by the development of micro, small and medium enterprises (**MSMEs**).

4. Research and Methodology

4.1 Research Variables

Based on the literature review and conceptual framework, several research variables can be determined, which are presented in Table 1. In this case PENs and ECOMs are both **exogenous** or **independent** variables that affect MSMEs as **mediating variables**, and becoming **MSME_fit,** which in turn will affect the three variables, namely GDPs, EXPs, and ECg, all of which are endogenous or dependent variables. (Note: in this case, MSMEfit, is measured by MSMEs plus residual)

Exogenous variables have a one-way relationship with the model, affect or have an impact on the model, and are not influenced by the variables in a model. While endogenous variables are variables that are explained by other variables in a model.

Table 1: Main Variables, Operational Definition & Scale

No	Variables	Operational Definition	Scale
1	PENs (x_1)	Number of MSME inclusive financing accounts (sheet)	Ratio
2	ECOMs (x_2)	Number of MSME IoT E-commerce Transactions (in %)	Ratio
3	MSMEs (y)	Number of MSMEs (units)	Ratio
4	GDPs (z_1)	Total GDP of MSMEs (in %)	Ratio
5	EXPs (z_2)	Number of MSME Exports (in %)	Ratio
6	ECg (z_3)	Indonesia's GDP per capita growth rate (in %)	Ratio

Source: Authors

4.2 Design Research and Data.

This study uses a descriptive causality design to describe and measure the effect of causality from various research variables. The secondary data used in this study came from the publications of the Central Statistics Agency, the Financial Services Authority, Bank Indonesia, and the World Bank, for the 2017-2021 period. So, the data is cross-sectional, because the number of periods is only 5 years, with many objects.

By applying the estimation process to cross-sectional data, it is possible to estimate individual characteristics simultaneously, considering the inter-time dynamics of each research object. Thus, the results of the analysis will be more comprehensive and cover things that are close to reality.

4.3 Data Analysis Method and Research Model

Based on this explanation, the data analysis technique used is **the Path Mediated Analysis Method**, which is the development of the multiple linear regression method. This method, resulting in a more complex analysis, provides estimates and significance of causal relationships, in a set of variables, where the independent variable affects the dependent variable not only directly, but also indirectly.

This technique informs the causality contribution shown by the path coefficient values in each path diagram (Jonathan, 2006). Some assumptions using this method are (a) all causal relationships are linear and additive; (b) all models are recursive, there is no bidirectional causal relationship and no feedback loop; (c) the error term is not correlated with other independent variables; (d) causal closure, meaning that all relevant causal variables are included in the model (Hooshang, 2020).

In addition, the requirements for using the path analysis method are secondary data, at least an interval or ratio scale, normally distributed data, and free of multicollinearity. Besides being a mandatory requirement of OLS, the existence of multicollinearity will lead to misleading results, when researchers try to determine how well each independent variable can be used to predict the dependent variable (Ghozali, Fuad, 2008). Several stages of data processing in the Path Mediated Analysis method are:

a) Preparation of the Path Diagram, developed from the conceptual framework and modified by placing the path coefficients and residual values (errors). Based on the results of multiple regression analysis, the path coefficient "ρyx" is calculated from the standard coefficient β, while the residual "e" is calculated by $\sqrt{(1-R^2)}$.

b) Development of research models or structural equation models, based on theoretical studies. This equation explains the causal relationship of each endogenous variable, to a set of exogenous variables.

The accuracy of the model is indicated by the adjusted magnitude of R^2, from the regression results. If it is close to 1, the model is a perfect fit; if it is close to zero or negative, the model is a poor fit; (c) The correlation coefficient between exogenous variables is shown as "ryx", calculated using the Pearson Product Moment Correlation Coefficient (Ferdinand, 2002).

For the complete model, several multiple linear regression (MLR) analyses are required. For each MLR, the criterion variable is in a box and the predictor variables are all the variables that have an arrow pointing to the box. Path coefficients for the complete model, derived from a series of MLR analyses. Based on this explanation, several Path Diagrams and Research Models were created, which are presented in Figure 2, below:
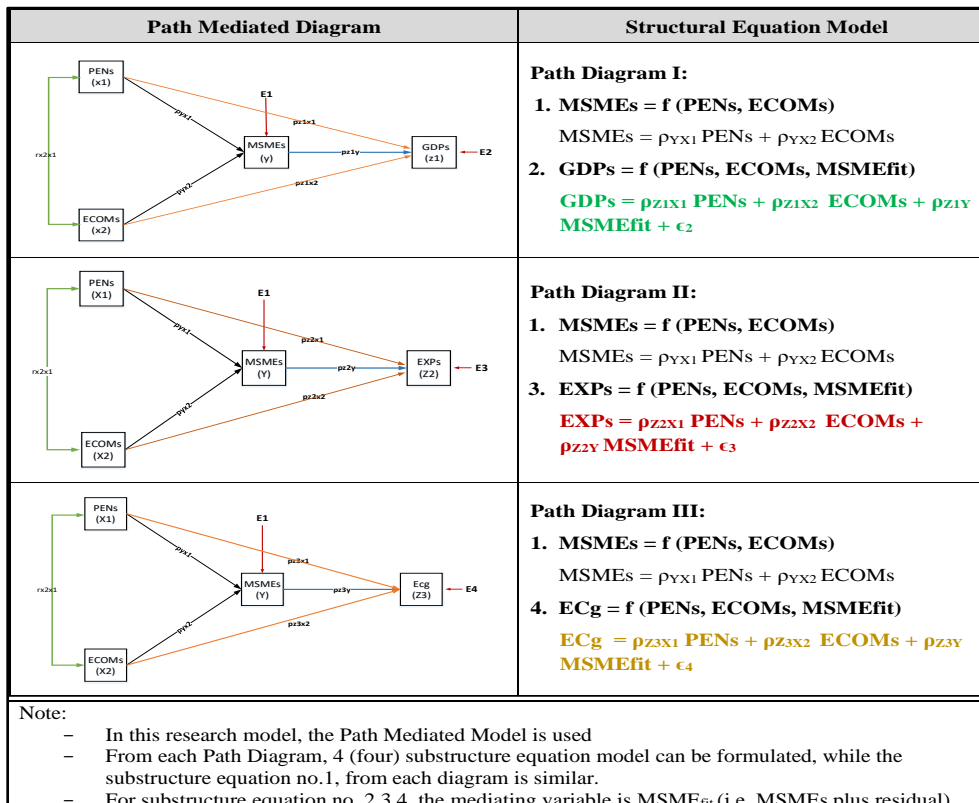
Path Mediated Diagram	Structural Equation Model

Path Diagram I:
1. **MSMEs = f (PENs, ECOMs)**

    MSMEs = ρ_{YX1} PENs + ρ_{YX2} ECOMs
2. **GDPs = f (PENs, ECOMs, MSMEfit)**

    GDPs = ρ_{Z1X1} PENs + ρ_{Z1X2} ECOMs + ρ_{Z1Y} MSMEfit + ϵ_2

Path Diagram II:
1. **MSMEs = f (PENs, ECOMs)**

    MSMEs = ρ_{YX1} PENs + ρ_{YX2} ECOMs
3. **EXPs = f (PENs, ECOMs, MSMEfit)**

    EXPs = ρ_{Z2X1} PENs + ρ_{Z2X2} ECOMs + ρ_{Z2Y} MSMEfit + ϵ_3

Path Diagram III:
1. **MSMEs = f (PENs, ECOMs)**

    MSMEs = ρ_{YX1} PENs + ρ_{YX2} ECOMs
4. **ECg = f (PENs, ECOMs, MSMEfit)**

    ECg = ρ_{Z3X1} PENs + ρ_{Z3X2} ECOMs + ρ_{Z3Y} MSMEfit + ϵ_4

Note:
- In this research model, the Path Mediated Model is used
- From each Path Diagram, 4 (four) substructure equation model can be formulated, while the substructure equation no.1, from each diagram is similar.
- For substructure equation no. 2,3,4, the mediating variable is MSME$_{fit}$ (i.e. MSMEs plus residual)

Figure 2: The Path Diagram and Structural Equation Model

Source: Authors

5   Findings and Discussions

5.1 The results of the data quality test

In this study, four (4) sub-structural equation models have been formulated, derived from four path diagrams (see figure 2). In simple terms, the four models were analyzed using multiple linear regression techniques. This technique is used to test the significance of each variable, as well as to select the appropriate path analysis model, which is used to answer research questions. So, the research discussion begins with analyzing the results of data processing.

Before the multiple linear regression analysis was carried out, the first step is to test the quality of the data. The use of the path analysis method requires that the data are normally distributed and free from multicollinearity. The results of the Kolmogorov Smirnov test / K's test, show that the significance of K's for all data is more than 0.05, this proves that all data are normally distributed. The indication of multicollinearity in the data is carried out by taking into account the VIF value, which is found in the multiple linear regression results. if the value of VIF < 10, then the data is free from multicollinearity. The results of data processing and this conclusion are presented in Table.2, below:

Note: Colored numbers show (a) the *p*-values that are not significant (yellow) and/or the secondary data that have multicollinearity (light blue)

Table 2: Summary of Data Processing Results

Model	Structural Causality	Path Coefficient	Coll. Statistic's VIF	ρ-Value (t)	Adj. R²	Conclusions.
1. MSMEs = f (PENs, ECOMs)	PENs ==> MSMEs	0.664	1.042	0.042	0.924	The regression line is a **perfect fit** PENs and ECOMs have significance effect
	ECOMs ==> MSMEs	-0.601	1.042	0.051		
2. GDPs = f (MSME fit, PENs, ECOMs)	PENs ==> GDPs	0.310	2.506	0.036	1,000	The regression line is a **perfect fit.** MSMEfit is proven to be significant, capable of being a **mediating variable**
	ECOMs ==> GDPs	-0.859	2.609	0.009		
	MSME fit ==> GDPs	-0.113	1.134	0.097		
3. EXPs = f (MSME fit, PENs, ECOMs)	PENs ==> EXPs	0.132	2.916	0.982	-0.101	Both linear model 3 and model 4, do not match or **poor fit .**
	ECOMs ==> EXPs	-0.020	14.564	0.948		
	MSME fit ==> EXPs	0.635	18.751	0.784		
4. ECgs = f (MSME fit, PENs, ECOMs)	PENs ==> ECgs	0.073	1.042	0.336	-0.107	All independent variables proved to have no effect on the dependent variable.
	ECOMs ==> ECgs	1.258	1.042	0.949		
	MSME fit ==> ECgs	-0.474	1.042	0.420		

Source: Authors

5.2 Hypotheses test results

In this study, the research hypotheses that have been formulated can be divided into **four hypotheses**. Based on the results of data processing, taking into account the accuracy of the model (R^2 adjusted) and the ρ-value of each variable at a 90% confidence level or $\alpha = 10\%$ (see Table 2), then some conclusions are presented as follows:

a) Hypothesis Ha1.: PENs and ECOMs affect MSMEs.
Base on Table 2, the results of data processing on model-1, shows ρ-value for PENs = $0.042 < 0.10$, and ρ-value for ECOMs = $0.051 < 0.10$. Thus, this hypothesis **Ha1** is **accepted,** meaning that the development of inclusive microfinance for MSMEs (PENs) and the development of the use of e-commerce by MSMEs (ECOMs) have **proven to have a significant effect on the development of the number of MSMEs** (hereinafter called MSMEfit).

- In this case, the development of inclusive microfinance – MSMEs **has a positive impact** on the development of the number of MSMEs, meaning that the higher the microfinance inclusion, the higher the number of MSMEs. This evidence shows that inclusive financing is needed by MSMEs. The previous research by Bassey, I., et al., 2017, found that financial inclusion has a positive and significant impact on the operation and growth of MSMEs in Nigeria.
- Meanwhile, the development of the use of e-commerce by MSMEs **has a negative impact** on the development of the number of MSMEs, meaning that the higher the use of e-commerce transactions by MSMEs, the lower the development of the number of MSMEs. Bank Indonesia, 2020, states that most MSMEs in Indonesia do not understand the potential for the use of e-commerce, have low mastery of technology, and are reluctant to optimize the use of e-commerce in business. In addition,

most Indonesian consumers still prefer to pay in cash (98%), using an e-wallet (17%) and bank transfer (16%).

b) Ha2.: PENs and ECOMs affect GDPs, mediated by MSMEfit.

This hypothesis **is accepted**, which means the development of inclusive microfinance for MSMEs (PENs) and the development of the use of e-commerce by MSMEs (ECOMs), affect the growth of MSME's GDP contribution (GDPs) **mediated** by MSMEfit.

- This means that MSME microfinance **plays an important role in contributing to Indonesia's GDP**, whose value increases along with the increase in microfinance inclusion. This is also consistent with the previous research conducted by Sultan, Y., et al., 2016, who states that there is a significant impact of microfinance on domestic growth (GDP).
- In this case, although it is proven that the use of e-commerce by MSMEs has a significant effect on the contribution of MSME GDP, however, **the effect is negative**. This confirms the statement that the development of the use of e-commerce by MSMEs in Indonesia is still low. The causes are low levels of trust, weak digital innovation, inadequate financial reports, low productivity, weak marketing strategies, not having a business license, and the thoughts of MSME actors who are reluctant to compete in the business world.

c) Ha3.: PENs and ECOMs affect EXPs. mediated by MSMEfit.
This hypothesis **is rejected,** meaning that the development of inclusive microfinance for MSMEs (PENs) and the development of the number of MSMEs using e-commerce (ECOMs), **have no effect** on the development of MSME export performance (EXPs). In addition, the development of

MSMEfit has **also not proven to be a mediator** of both PENs and ECOMs toward EXPs. This means that the development of inclusive microfinance for MSMEs and the behavior of MSME e-commerce transactions **have no effect onincreasing Indonesian exports**. In other words, the increase in Indonesia's exports is contributed by other business sectors, except MSMEs.

- This fact also happened in Ethiopia (Hailai, A, W. et al., 2019). The initial capital of MSMEs is access to credit facilities and is the main determinant of MSME performance. However, the majority of MSMEs, only produce for local and regional markets; little for the national market and none for the international market. So, there is **no relationship** between the development of MSMEs and export performance.
- Studies related to the paradigm shift from offline to online exports in India (FICCI, 2017), found great export potential opportunities, through online mode, **but have not been fully utilized**, due to the unfavorable policy environment. One of the strategies is to motivate MSMEs to use e-commerce platforms while ensuring high profitability on the other hand.

d) Ha4.: PENs and ECOMs, affects ECg, mediated by MSMEfit.

This hypothesis **is rejected,** meaning that the development of inclusive microfinance for MSMEs (PENs) and the development of the number of MSMEs using e-commerce (ECOMs), **have no effect** on Indonesia's economic growth (ECg). In addition, the development of MSMEfit has also not proven **to be a mediator** between PENs and ECOMs

towards ECg. This means that both inclusive microfinancing for MSMEs and the behavior of MSME e-commerce transactions **do not affect Indonesia's economic growth**. Thus, Indonesia's economic growth, which is starting to improve, is due to other factors outside the model.

- This fact contrasts with previous empirical findings by Suman, D. et al., 2020, which are based on the latest databases from the IMF and World Bank, showing **a significant relationship** between the use of financial inclusion in India and economic growth.
- In addition, the previous research results by Edna, M, S. et al., 2020, in 39 African countries, analyzed the impact of the use of digital technology on economic growth, which differentiated the use of digital technology by individuals, businesses, and governments, on economic growth, showed that only the use of digital technology by individuals who have a positive and significant impact on economic growth.

5.3 Describing the Full Path Mediated Model and calculating the Direct and Indirect Effects.

Based on the discussion in points 1 and 2, the most appropriate and statistically significant model was selected. Which shows a causal relationship between the independent variable, the mediating variable, and the dependent variable. By considering Table 2, it can be concluded that model 1 and model 2 **are eligible to be selected**. Thus, the **Path Mediated Diagram** of this research is as follows:
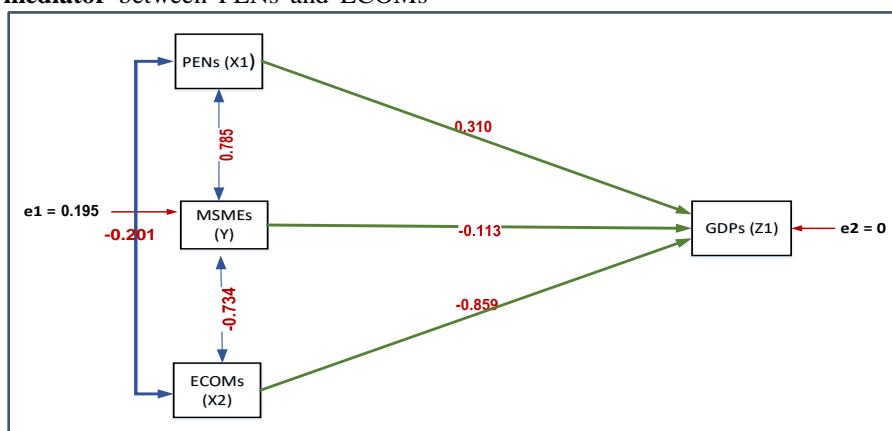

Figure 3: The Path Diagram of Research

Source: Authors

Thus, it has been proven that the development of micro-financing for MSMEs and the behavior of MSMEs in the use of digital financial transactions both have a significant effect on the development of MSMEs, which in turn is able to increase the growth of MSMEs' contribution to GDP. Based on this fact, as shown in Figure 3, the full path mediated model found in this study shows two mediated sub-structure equations. The first sub-structure states a causal relationship between PENs (X1) and ECOMs (X2) to MSMEs (Y). In this substructure, both X1==>Y and X2==>Y, the relationship between them **is significant** (*p-value*<α=0.10). Furthermore, the second sub-structure suggests a causal relationship between MSMEs (Y) to GDPs (Z1), and **the mediating variable** is also statistically

significant. Thus this causal relationship is referred to as **partial mediation**.

The purpose of path analysis here is to describe the sources of correlation between the independent variable and the dependent variable. The calculation of the total effect is only on the sub-structural equation, where several variables are proven to be statistically significant. The direct effect is calculated from the value of the path coefficient of the exogenous variable, while the indirect effect is calculated from the multiplication of the path coefficient of the exogenous variable with the endogenous variable, which is then multiplied by the correlation coefficient. Here are the

results of the calculation of direct effects, indirect effects, and total effects, as follows (see figure 2):

Based on the calculation results presented in table 3, the following explanation is given(see Figure 3.):

1) Direct effect, indirect effect, and the total effect of the relationship between PENs (x1), MSMEs (y), and GDPs (z1). The direct effect is calculated through the effect of PENs (x1) on GDPs (z1) or$\rho z_1 x_1 = 0.310.$ Whereas the indirect effect is obtained from two indirect effects:
   a) Correlation between PENs (x1) and MSMEs (y) or**ryx1** and the direct effect of MSMEs on GDPs or $\rho z1y$. The magnitude of this indirect effect is: **0.785*(-0.113) = -0.088705**
   b) Correlation between PENs (x1) and ECOMs (x2): or**rx2x1**and the direct effect of ECOMs on GDPs or $\rho z1x2$. The magnitude of this indirect effect is: **-0.201*(-0.859) = 0.172659.**Thus, the total indirect

effect is = (-0.088705 + 0.172659 = 0.083954 = 8.3954% = **8.40%**.
   c) From this fact it can be concluded that inclusive financing for MSMEs, has a direct effect on the contribution of GDPs by 31%, where this influence increases by 8.40%, along with the development of MSMEs, so that the total effect is **39.40%.**

2) In the same way, direct effects, indirect effects, and total effects can be calculated from the relationship between ECOMs (x2), MSMEs (y), and GDPs (z1). The calculation results show the direct effect of ECOMs (x2) on GDPs (z1) or $\rho z_1 x_2 = - 0.859 = (85\%).$ This means, that the number of MSMEs using e-commerce, **directly has a negative effect** on the contribution of GDPs. However, if it is utilized through the development of MSMEs, it will **indirectly increase the contribution** of GDPs, by **2.063%.**

Table 3: The Direct Effect, Indirect Effect, and Total Effect

Variable Relationship	Correlation Coefficient	Path Coef. (a_2)	Direct Effect (a_1)	Indirect Effect $(a_2)*(r2,1)$	Total Effect (DE+IE)
Research Model: GDPs = ρ_{Z1X1} PENs + ρ_{Z1X2} ECOMs + ρ_{YX1} MSMEs + e_2					
PENs ==> MSMEs ==> GDPs					
PENs ==> GDPs			$\rho_{Z1X1} = \mathbf{0.310}$		
MSMEs ==> GDPs		$\rho_{Z1Y} = -0.113$			0.3939 = **39.39%**
PENs <==>MSMEs	$r_{YX1} = 0.785$			(-0.113)*(0.785) = -0.0887	
PENs <==> ECOMs	$r_{X2X1} = -0.201$			(-0.859)*(-0.201) = 0.1726.	
			Total IE =	**0.0839 = 8.39%**	
ECOMs ==> MSMEs ==> GDPs					
ECOMs ==> GDPs			$\rho_{Z1X2} = \mathbf{-0.859}$		
MSMEs ==> GDPs		$\rho_{Z1Y} = -0.113$			-0.83837= **-83.83%**
ECOMs <==>MSMEs	$r_{YX2} = -0.734$			(-0.734)*(-0.113)=0.08294	
ECOMs <==>PENs	$r_{X1X2} = -0.201$			(-0.201)*(0.310)= -0.06231	
			Total IE =	**0.02063 = 2.063%**	

Source: Authors

6 Conclusions

6.1 Explanation of the working hypothesis (there are four sub-hypotheses):

a) The sub-hypothesis Ha1, is accepted, meaning PENs and ECOMs proved to have an effect on MSMEs, where the effect of pens was significant positive and the effect of ECOMs negative was significant.
b) The sub-hypothesis Ha2, accepted, means PENs and ECOMs proved to have an effect on GDPs, mediated by MSMEfit, where the effect of pens was significantly positive and the effect of ECOMs negative was significant.

c) The sub hypothesis Ha3, is rejected, meaning that PENs and ECOMs have no effect on EXPS. In this sub-hypothesis, MSME fit was not proven to be a mediator of PENs and ECOMs on EXPs.
d) The sub hypothesis Ha4, is rejected, meaning that PENs and ECOMs have no effect on ECg. In addition, MSMEfit was not shown to be a mediator of PENs and ECOMs on ECg.

6.1 Assessment of the results of research:

a) Inclusive Microfinance for MSMEs has a positive effect on the growth of the contribution of GDP – MSMEs, through the development of MSMEs, with a total effect of 39.40%. Basically, the program has long been carried

out by the government through Bank Indonesia, specifically directed at the expansion of formal capital for MSMEs according to their development and business needs. However, they are faced with two obstacles, the first is access to financial services or products, and the second is the financial product itself which has not been able to adapt to the needs of the community, which is getting worse when the sales turnover of MSMEs declines, due to the COVID-19 pandemic.

b) Although it has not shown optimal results, this activity needs to be improved. Several studies confirm that the weak contribution of financial inclusion to GDP growth is partly due to a weak financial system, and the availability of access to the financial system is still low. Thus, policymakers should encourage the availability of the financial system, for all levels of society, in order to promote the effect on GDP growth.

c) The number of MSMEs using e-commerce has a positive indirect effect on Indonesia's GDP growth, amounting to 2.63%, through the development of MSMEs. This finding is in line with the research of Mesut, S. et al., 2014, who stated that although size is a weakness for SMEs to compete, global e-commerce platforms can help them grow. Several obstacles in conducting e-commerce can be resolved through public and private support. In addition, even in difficult conditions, MSMEs have high resilience in the face of various crises, where the ability to withstand these stressful times can grow back faster and higher after stress (Bank Indonesia, 2020).

6.2 Research limitations and problems.

a) The secondary data used in this study is limited to the period 2017 to 2021 (second quarter).
b) The impact of the COVID-19 pandemic on MSMEs can be categorized from the internal and external sides of MSMEs. This study only examines the external side of MSMEs and their impact on the economy in general.

6.3 Guidelines for future research.

Conducting further research related to the impact of the COVID-19 pandemic, on MSMEs internally by MSME organizations, with primary data, and determining research areas, especially for MSMEs that are most severely affected. In this case, the sample selection can be based on Cluster Random Sampling. This sampling technique views the population as parts of groups or clusters.

7 Suggestions and recommendations.

a) Based on the findings of this study, the government needs to improve the quality of inclusive financing services and special access to the unbanked. The low indirect effect on MSME GDP growth can be corrected by improving the financial system spread throughout the region, through partnerships with various banks and non-bank financial institutions, as well as increasing the professional capacity of HR in managing inclusive microfinance, especially for MSMEs.

b) In order to increase the number of MSMEs using e-commerce, the government in collaboration with the private sector and/or relevant stakeholders must provide more adequate internet access to all corners of the region, accompanied by clear and innovative socialization and information, especially to MSME actors, through related literacy. digital marketing, its potential, and benefits, as well as being creative, provides various digital platforms that are cheap, accessible, and tax-free. In addition, it also supports land, sea, and air transportation, at affordable costs, in order to facilitate trade transactions between cities, regions, and between countries.

c) Based on various policies from the Financial Services Authority, the Ministry of Cooperatives and SMEs, as well as the Ministry of Trade, related to policies for MSMEs, one of which is written on the empowerment of MSMEs, including entrepreneurship, capital/inclusive financing, digitalization of finance/marketing. This activity should be carried out more effectively and on target.

Acknowledgments

References

[1] Abiodun, T. O., Ololade, T. I. O., & I, O. The Effect of Microfinancing on Economic Development in Nigeria (1990-2018). *International Journal of Economics and Management Studies,* Vol. 7, Issue 4 (2020): 128-137, DOI: 10.14445/23939125/ijems-v7i4p117
[2] AFour Technologies. *MSMEs and IoT, (*2021). https://afourtech.com/msmes-and-iot
[3] Agatha, O, V. *Sri Mulyani: Five Barriers to MSMEs Entering the Export Market - Trade*. April 20, 2021. https://katadata.co.id/agustiyanti/berita/607e85c44b0ff/sri-mulyani-ungkap-lima-hambatan-umkm-menembus-pasar-ekspor

[4] Aghata, O, V. *FSA: Financial literacy has become a global issue in the Presidency, G20, Italy.* Webinar for the Launch of Financial Literacy Infrastructure, Jakarta, 20th December 2021. Low levels of financial literacy have become a global issue: OJK-Antara News

[5] Akhilesh, G. *Multiplier Effect.* Investopedia Express Podcast. December 09, 2021. https://www.investopedia.com/terms/m/multipliereffect. asp.

[6] Amar, K., Manoj S. COVID-19, and Mental Well-Being: Guidance on the Application of Behavioral and Positive Well-Being Strategies. *Healthcare.* Vol. 8, Issue I3 (2020): 336-343. https://doi.org/10.3390/healthcare8030336

[7] AFI. National Financial Inclusion Strategies Current State of Practice. AFI FISPLG Publication. Alliance for Financial Inclusion. All rights reserved. October 2015. https://www.afi-global.org/sites/default/files/publications/fisplg-state_of_practice.pdf

[8] Awanti, E. Analysis of the Effect of Financial Inclusion on Financial System Stability in Developing Countries in Southeast Asia. *JIET (JurnalIlmu Ekonomi Terapan).* Vol.2 No.2 (2017): 99-121. DOI: 10.20473/jiet. v2i2.6080, https://www.researchgate.net/publication/312564498.

[9] Bank Indonesia. *Financial Inclusion Handbook*, Ministry of Finance Access Development and MSME, (2014): 1-17. DPAU-GPKI@bi. go. id

[10] Bank Indonesia. *MSME Transformation for Inclusive Economic Growth*. Economic Report on Indonesia 2020, Chapter VI. Jakarta: Bank Indonesia, (2020): 1-197*https://www.*bi. go. id/en/publikasi/laporan/Pages/LPI_2020. aspx

[11] Bank Indonesia. *Synergy Building Optimism for Economic Recovery*. Economic Report on Indonesia, Jakarta, (2020): 1-197. https://www.bi. go. id/en/publikasi/ruang-media/news.

[12] Bassey, I. I., Amenawo I. O., & Enyeokpon S. M. Financial Inclusion and Performance of Micro, Small and Medium Scale Enterprises in Nigeria. *International Journal of Research Granthaalayah.* Vol. 4, Issue 3 (2017): 104-122. https://doi.org/10.29121/granthaalayah. v5. i3.2017.1783.

[13] Central Bureau of Statistics/BPS, *Indonesian Statistics*, 2021, ISSN/ISBN: 0126-2912, (2021): 1-804. bps. go. id/publication/2021/02/26/938316574c78772f27e9b477/statistik-indonesia-2021. html

[14] CXGO Consulting. Financial Inclusion: Is it truly about access? Reaching Out to the Indo-nesian Non-Inclusive Market. *CDN Report of Financial Inclusion June*. (2018): 1-17. https://cdnreport. dailysocial. id/CXGO_Report_Financial_Inclusion_June_2018.pdf

[15] Dai, W. K. , Jung, S. Y. , Kabir, M. . Financial inclusion and economic growth in OIC countries, *Research in International Business and Finance.* Vol. 43 (2018): 1-14. https://doi.org/10.1016/j. ribaf.2017.07.178

[16] Desy, S. Nearly 16 Million MSMEs Enter E-Commerce but Faced with 7 Challenges. *Indonesian E-Commerce Consumer Behaviour Report*. Katadata Insight Center & Kerdivo. June 2021.

[17] Dito, A. D. N., Erlina, Iskandar, M., Impact of the COVID-19 Pandemic on the Indonesian Economy, *JurnalBenefita.* Vol. 5, Issue 2 (2020): 212-224. DOI: 10.22216/jbe. v5i2.5313.

[18] Edna, M, S., Aaron van K. The impact of digital technology usage on economic growth in Africa. *Elsevier Public Health Emergency Collection.* (2020): 1-13. DOI: 10.1016/j. jup.2020.101104

[19] Ferdinand, *A. Structural Equation Modelling: In Management Approach.* University Library of Diponegoro, Semarang Indonesia. E-books, (2002): in press

[20] FICCI-CMSME, IIFT, & Apex Cluster Development Services Private Limited**.** *Exploring Potential of E-Commerce for Retail Exports of Indian MSMEs in Manufacturing Sector*. E-Com-Report. (April 2017): 1-82. https://ficci. in/spdocument/20911/e-com-report.pdf

[21] Financial Services Authority/OJK. *NationalFinancial Literacy and Inclusion Survey.* January 24, 2017. https://ojk. go. id/id/berita-dan-kegiatan/publikasi/Pages/Survei-Nasional-Literasi-dan-Inklusi-Keuangan-2019. aspx

[22] Financial Services Authority/OJK. *FSA Encourages MSME Development to Accelerate National Economic Recovery.* January 2020. https://www.ojk. go. id/id/berita-dan-kegiatan/info-terkini/Documents/Pages/Infografis-OJK-Dorong-Pengembangan-UMKM-untuk-Percepatan-Pemulihan-Ekonomi-Nasional. .

[23] Ghozali. I., Fuad. *Structural Equation Modelling*. University Library of Diponegoro. Semarang Indonesia. E-books, (2008): in press

[24] Hailai, A, W. , Claire, V., Kibrom, K., Luback, M., Mahlet, T., Negasi, H. T., & Yemane, G. Contributions of Micro, Small and Medium Enterprises (MSMEs) to Income Generation, Employment and GDP: Case Study Ethiopia. *Journal of Sustainable Development. (*2019): 46-81. DOI: 10.5539/JSD. v12n3p46

[25] Haryo, L. *MSMEs Become Important Pillars in the Indonesian Economy*. Coordinating Ministry for Economic Affairs of the Republic of Indonesia, Press Conference, HM.4.6/103/SET. M. EKON.3/05/2021. March, 2021. https://www.ekon. go. id

[26] Hermien, T., Yolanda, M. The Role of Financial Inclusion Movement for Developmentof Micro & Small Enterprises (MSEs), Entrepreneurship and Poverty Alleviation. *International Journal of Technical Research and Applications*. e-ISSN: 2320-8163, Vol. 4, Issue 1 (January-February, 2016): 71-76. www. ijtra.com. https://www.researchgate.net/publication/340984798

[27] Hermien, T., Yolanda, M., Khomsiyah, G. Toward 'Sustainable Development' Through Zakat - Infaq-Sadaqah Distributions, as Inclusive Activities for the Development of Social Welfare and Micro & Small Enterprises. *Australian Journal of Islamic Studies (AJIS).* Vol.3, Issue 1 (2018): 24-44. ISSN 2207-4414. https://doi.org/10.55831/ajis. v3i1.73

[28] Hidayanti, A. The Effect of Islamic Financial Inclusion on Indonesia's Economic Growth in 2015-2017. *JurnalIlmiahMahasiswaFakultas Ekonomi dan BisnisUniversitas Brawijaya -*Vol 7, no1 (2018): 1-22.

https://jimfeb. ub. ac. id/index. php/jimfeb/article/download/5375/4722 · pdf file

[29] Hooshang, N. . Path Analysis: Advanced Statistics for Testing Assumed Casual Relationships. *Book Chapter, (*2020): 47-78. The University of Tehran. DOI: 10.1007/978-3-030-54754-7_2

[30] Ikhsan, M., Hasan, M. Analysis of the Impact of Using E-Commerce in Increasing Sales Turnover for Micro, Small, and Medium Enterprises in Makassar City. *Journal of Economic Education and Entrepreneurship Studies.* JE3S, Vol 1, Issue 1, (2020): 39-46. *https://*ojs. unm. ac. id/JE3S/article/download/18112/pdf.

[31] Jayanta, C. IoT in E-commerce and its Future. *Technical Article.* (May, 2020): 1-3. IoTEDU. An Online Internet of Things Community. https://iot4beginners.com/iot-applications/

[32] Jonathan, S. *Quantitative and Qualitative Research Methods.* YogyakartaIndonesia: GrahaIlmu. E-books, (2006): in press

[33] Marginingsih, R. Financial Technology (Fintech) in National Financial Inclusion during the Covid-19 Pandemic. *Journal of Accounting and Finance.* Vol. 8 No. 1 (April 2021): 56-64. P-ISSN 2355-2700 E-ISSN 2550-0139. https://doi.org/10.54259/akua. v1i1.155.

[34] Mesut, S., Ahmet, I., Sefer, S. The Potential of E-commerce for SMEs in a Globalizing Business Environment. *Science Direct, Elsevier, Procedia-Social and Behaviour Sciences.* No 150, (2014): 35-45. DOI: 10.1016/J. sbspro.2014.09.005.

[35] Ministry of Finance of the Republic of Indonesia. *These are the Three Focuses of the 2021 Economic Recovery Policy Framework.* April, 2021. https://www.kemenkeu.go.id/publikasi/e-magazine/media-keuangan

[36] Namita, R., Ajay, R., Geetanjali, B., Shelly, O. Relationship of exports, Forex and MSMEs in India: an econometric study*, Problems, and Perspectives in Management,* Vol. 10, Issue 3 (2012): 23-34. https://www.academia.edu/24791015/relationship_between_language_and_society

[37] Nory, B. J., Matt, G. C. Can the Io T (Internet of Things) Help Small Businesses? Bulletin of Science, Technology & Society. *Journals Sage Publication.* Vol.38, Issue 1-2 (2020): 3-12. **https://**doi**.org/**10**.1**177/0270467620902365

[38] Rajouri, G., Dissa, R. C. *E-commerce adoption by Indonesian micro, small, and medium enterprises (MSMEs): Analysis of goals and barriers*. International Conference on Communication Software and Networks (ICCSN), 2011, IEEE 3rd. DOI: 10.1109/ICCSN.2011.6014861

[39] Rosita, R. The Effect of The Covid-19 Pandemic on MSMEs in Indonesia. *Jurnal Lentera Bisnis.* Vol.9, no 2 (2020): 109-120. DOI: 10.34127/jrlab. v9i2.380

[40] Rosnita, W., The Impact of E-commerce Adoption on MSMEs Performance and Financial Inclusion (FI) in Indonesia. *White Paper*, Vol 19, no, 06, (December, 2019): 1-19. https://www.semanticscholar.org/paper/The-Impact.

[41] Sandra, A. , Ahmad, L. The role of e-commerce on the Indonesian economy during the Covid-19 pandemic. *Journal of Business Management Studies.* Vol. 9, Issue

[42] Sara, B. *Garson_2008_PathAnalysis*. Lecture Notes, E-books. 2008. Public Administration Program, North Carolina State University, Raleigh, North Carolina

[43] Sulong, Z., Bakar, H. O. The Role of Financial Inclusion on Economic Growth: Theoretical and Empirical Literature Review Analysis. *Journal of Business & Financial Affairs.* Vol. 07, Issue 04 (2018): 1-5. DOI: 10.4172/2167-0234.1000356

[44] Sultan, Y., Masih, M. *Does microfinance affect economic growth? Evidence from Bangladesh based on ARDL approach*. MPRA Paper No. 72123 (2016): 1-30 University Library of Munich, Germany. https://mpra. ub. uni-muenchen. de/72123/1/MPRA_paper_72123.pdf

[45] Suman, D., Manoj, K. The linkage between Financial Inclusion and Economic Growth: An Empirical Study of the Emerging Indian Economy. *Journals Sage Publication.* Vol. 24, Issue 2 (May, 19, 2020): 184-193. https://doi.org/10.1177/0972262920923891

[46] Taufik, Avianti, E. A., The Impact of the Covid-19 Pandemic on Business & the Existence of Online Platforms. *Journal of Entrepreneurial Development.* Vol 22, Issue 1 (2020): 21-32. p-ISSN 1411-710X; e-ISSN 2620-388X. http://dx. doi.org/10.33370/jpw. v22i1389

[47] Trading Economics Analytics. *Indonesia GDP Annual Growth Rate, Indonesia Exports YoY, 2021.* Copyright ©2021. Trading Economics. All Rights Reserved. https://tradingeconomics.com/indonesia/gdp-growth-annual

[48] Tri, K. Y. *Nielsen: The Majority of People Still Choose Shopping at Traditional Markets.* Katadata Insight Center (KIC) *Research Report,* 2020.

[49] UNCDF. *Financial Inclusion and the SDGs*: *Unlocking Public and Private Finance for the Poor,* 2019. https://www.uncdf.org/financial-inclusion-and-the-sdgs.

[50] Valentino, V. *Airlangga Hartarto Semringah: Indonesia Records Highest Exports in History*, 2021. https://bekasi. tribunnews.com/2021/09/16/airlangga-hartarto-semringah-indonesia-catat-ekspor-tertinggi-sepanjang-sejarah

[51] World Economic Forum. *Annual Report, 2020-2021.* Committed To Improving the State of The World, (2020): 4-117. https://www3. weforum.org/docs/WEF_Annual_Report_2020_21.*pdf*

[52] Yose, R. D., Adinova, F., Dandy, R. CSIS Policy Briefs, Department of Economic: E-Commerce Development and Regulation in Indonesia. *Research Report.* (2021): 1-8. Published by Centre for Strategic and International Studies. https://www.jstor.org/stable/resrep28866.