The Impact of Digital Economy towards the national Economy Development in Indonesia (The Study Case in Bandung, West Java)

Bambang Sudaryana, Wellda, Sofia, Dewi Ratnasari, Herdiyanti, Heidy, Siddiqa, Dian

The Impact of Digital Economy towards the national Economy Development in Indonesia (The Study Case in Bandung, West Java)

Bambang Sudaryana, Wellda, Sofia, Dewi Ratnasari, Herdiyanti, Heidy Siddiqa, Dian

Sekolah TinggiI lmu Ekonomi Cipasung Tasikmalaya Indonesia

Abstract: Indonesia is predicted to become the biggest digital economy country in Asian region. It can penetrate the amount of 130 billion US dollars or around 1, 729, 000 billion IDR. However, it will not be easy for Indonesia to successfully achieve the digital economy with this high value; there are still several major problems that must be faced by Indonesia, which is the sector of Indonesian higher level education that could not provide human resources in accordance with the industry needs, could not give consumer protection, taxation system, cyber security, and ICT infrastructure. The research used the experiment research methodology, which is the research trying to find the influence of a certain variable towards another variable in strictly controlled condition. The researcher manipulated the independent variable. This research intends to notice the causality and the influence of factors in certain condition. In the simplest form, the approach of this experiment tried to explain, control, and predict the phenomena as elaborate as possible. Quantitative model was mostly used in this experiment research. The result of the research indicates that Digital Economy Regulation and Human Resource Quality significantly influence the Development of Indonesian Economy. As well as, it is characterized by three fast-developing sectors; among them are on-demand services, financial technology (fin-tech), and e-commerce.
Keywords: Human Resource Quality, Digital Economy Regulation, Digital Economy Taxation System, Cyber   Security, ICT Infrastructure.

Introduction

The development of middle class and internet penetration cannot be swept aside. World Bank recorded Indonesia has experienced a fantastic growth of middle class since monetary crisis in 1998. It has been predicted that the growth of middle class will continuously increase until 2030 with a population of 141 million people.

As mentioned before, the potential of digital economy cannot be swept aside from internet penetration in this era. The Association of Indonesian Internet Providers (APJII), recorded in 2014, the number of domestic internet users is 88,1 million people with penetration

of 34,9 percent, increased up to 16 percent from 2013 about 71.2 million people with penetration of 28,6 percent. This number has been predicted will continuously increase along with the high technology in Indonesia. The research and development of Kompas predicted that the number will increase, especially in 2017 reached the number of 117 million people. It creates Indonesia as a very potential market to digital merchants and entrepreneurs.

This great potential cannot be useful optimally if the stakeholders do not anticipate the accompanying problems. One of the most potential problems is the disappearance of tax potential and law vacancy which regulate the process of trade transaction digitally.

Objectives of the Study

The study has two (2) objectives, namely; to determine what are the factors or dimensions of Digital Economy in Company of Digital Economy, and to determine the relationship between digital economy and National Economy Development.

The discussion of the study is divided into four (4) sections. Section 1 discusses the existing literature on branding and its impact of firm's performance, Section 2 explains the methodology used to conduct this study, Section 3 describes the findings of the study and Section 4 concludes the study by highlighting the main findings of the study.

Literature Review
Policy

Cochran and Malone noted: "Public Policy is the study of government decisions and actions designed to deal with matter of Public Concern". Dye as quoted by Winarno (2007) assumed widely in formulating the definition of policy, as the government choice to do or not to do something (whatever government choose to do or not to do).

The public policy basically is not permanent, however it must be adapted because the change of condition, such as the problem of politics, social, economy, or even changeable information. The change of policy is conducted after evaluation. Thus, the change of public policy dynamically follows a change that is propelled by the surrounding change of inside or outside public organization.

Economy Development

The fast development of world digital economy is depicted in several indicators. The investment value in telecommunication is sufficiently high and in a trend that is still increasing. The OECD (2015) noted that an investment of telecommunications in the world since 2000 reached approximately 200 billion US Dollars per year. In line with that, the total telecommunication connection consisting of a telephone analogous, digital (ISDN and DSL), modem, fiber optics, and cellular reached around 2.1 billion connections in 2013. This suggests the world community towards preference cellular phones is getting higher. The numbers of internet users have increased especially in Asia. In 2009 internet users in Asia were 713 million people, in the year 2015 increased by more than 200 percent namely 1.445 million people.

Digital Economy Technology

Digital economic development cannot be doubted, especially in big cities like Jakarta, Surabaya, Bandung, Medan, and Makassar. Basic need goods was once can be traded in the conventional transaction, now can be transformed into digital trade. Indonesia has owned digital companies as Gojek, Blibli, and Traveloka which continue to grow. The community (consumers) will no longer need to be confused about time and additional costs when they need something. A report published by the Mc Kinsey & Company (2015) mentioned that Indonesian company is strong competitors if it is associated with digital trade. Indonesia is the key player in the digital trade. According to the same source, its growth is predicted will be able to grow to 10 times of the existing situation at the present time.

The effect of policy, the development of digital economy technology correlation with economic Indonesian economy growth.

The G-20 group of nations committed for steadying digital economy as an instrument for improving the global economic growth. The Indonesian government has long-term mission into the Digital Energy of Asia. Now the potential of digital economy in Indonesia can be seen from the number of transactions using the internet. Currently internet users in Indonesia in 5 years continue to rise above 12 percent. The increase of digital trade gives good impact on the economy. To maximize the potential of digital economy, there are several obstacles such as capital, tax, consumer protection, infrastructure development, logistic shipping, and human resources. In 2016 the government prepared the roadmap of digital trade to anticipate the obstacles and improve competitiveness. The role of the House of Representatives (DPR RI) is to oversee the on-progress government programs and encourage the proposed rules to support the digital economy development.

The Association of Indonesian Internet Providers (APJII), recorded in 2014, the number of domestic internet users is 88,1 million people with penetration of 34,9 percent, increased up to 16 percent from 2013 about 71.2 million people with penetration of 28,6 percent. This number has been predicted will continuously increase along with the high technology in Indonesia. The research and development of Kompas predicted that the number will increase, especially in 2017 reached the number of 117 million people. It creates Indonesia as a very potential market to digital merchants and entrepreneurs.

This great potential cannot be useful optimally if the stakeholders do not anticipate the accompanying problems. One of the most potential problems is the disappearance of tax potential and law vacancy which regulate the process of trade transaction digitally.

Initiative Study Center estimated that tax potential can be examined from this industry can reach 10-15 trillion per year. This figure is certainly not a small nominal. Directorate General of Taxation in Notification Letter Number SE / 62 / PJ / 2013 about Affirmation of Taxation into Transactions on the e-Trade (e-commerce) states that there is no new tax on the e-commerce transaction that applies general provisions and there is no difference in the application of the taxation legislation of conventional and electronic transactions. This should cause the

government will lost state revenues. Therefore, it is important for the government to perform innovation associated to new tax collection and more applicative for digital transaction.

The problem of emptiness regulations deserve to become mutual concerns. It is still clear in the memory, in March 2016 has happened a protesting of the conventional taxi driver for the presence of online taxi. Many suppose that online taxi destructs the existing of economic order, but some who gain the benefit from the presence of online taxi. This debate can also be solved by the presence of a regulation. On the one hand, the application of digital technology increases productivity and reduces production cost. On the other hand, how to do a conventional business, generally, absorb more labor force. The application of digital technology has a potential in replacing conventional business so that it can diminish in creating job fields. In this matter, the government policy is necessary to ensure digital economy development which provides positive effect to the economy as a whole.

Bank Indonesia reported the transaction of digital trade in Indonesia on 2014 reached 2,6 billion USD and increased in 2015 be 3,56 billion USD. It has been predicted that in the year 2016 this will be more than the 4, 89 billion USD. Also reflected by the high of money circulation that occurs in the process of digital trade, it makes the government prepared a set of rules that has helped the utilization of the digital system, the rules of cyber security, and greater data and internet safety. Economy digital gives impact to the security problems, privacy, and consumer protection. The roadmap of digital trade prepared by the government is to anticipate digital economy development with an emphasis on 7 strategic issues, namely the logistics, funding, consumer protection, communication infrastructure, tax, education and human resources, cyber security. With this roadmap arrangement, is expected to accelerate a competitive digital trade development

Key Variables

In this study, four branding dimensions are used as independent variables. First, Technology Digital Economic referring to the practices used by online Business Managers to achieve distinct differentiation, (McKinsey & Company, 2015). Second, Digital Human Resources Quality is used to refer to all aspects of Company of Economic digital (Association of Indonesian Internet Service Providers (APJII, 2014). Third, Digital Economic Regulation refer to the plan for systematic development of the Economic Digital (Indonesia Bank, 2015). The fourth dimension is Digital Economic Taxation System, which refers to the allocation of resources to support economic development (The Center Prakarsa Studies, 2013).

Model

From the literature, there are four dimensions of digital economic, which are used as independent variables, namely Technology Digital Economic, Digital Human Resources Quality, Digital Ecopnomic Regulation, and Digital Economic Taxation System . The dependent variable is National Economy Development. Figure 1 depicts the above relationships.
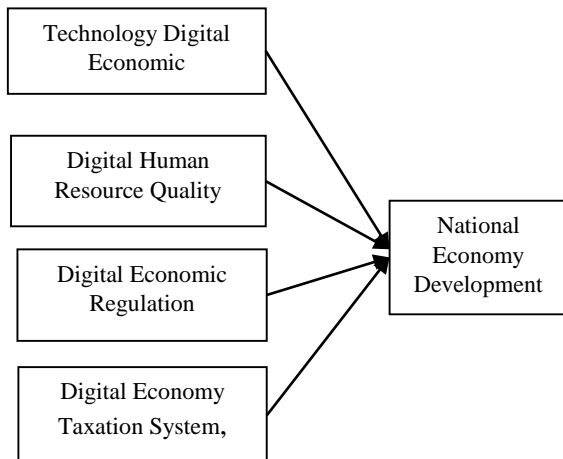
Figure 1: Research Model

Figure 1 shows the model proposed for this research. It posits that Technology Digital Economic, Digital Human Resource Quality, Digital Economic Regulation, and Digital Economy Taxation System, as independent variables, which can explain variations in National Economy Development

Hypotheses

The above model shows the relationship between the dimensions of National Economy Development. The following hypotheses will depict the relationships under study.

H1: Technology Digital Economic have positive influence on National Economy Development

H2: Digital Human Resources Quality has positive relationship with National Economy Development

H3: Digital Economic Regulation have positive influence on National Economy Development.

H4: Digital Economic Taxation System has positive influence on National Economy Development

Methodology

This section has four (4) topics. The topics are the research design used for this study, the research instrument used for data collection, population and sample, and data analysis.

Research Design

This study adopted the quantitative research method to address the research problem as it is the most practical and cost-effective under the circumstances. This approach allows for verifications to be carried out scientifically and statistically. The cross-sectional survey design is cost effective because data collection is carried out only once.

Research Instrument

The research instrument used in this study was taken from various sources. Firstly, the National Economy Development were taken from Gross Development Product and Gross National Product (OECD, 2015) literature. Strategic management places profitability, revenue growth and comparative financial performance (with industry) as of paramount importance

(David, 2011; Dess, Lumpkin and Eisner, 2014). Venkatraman and Ramanujam (1986) provided a comprehensive set of approaches to measure business performance. For this study the questions asked to represent these measurements are:

1) For the last 3 years on average, what was the level of profitability (return on sales) of your Business/Trade online?
2) For the past 3 years on average, what was the growth rate (sales growth year on year) of your business/Trade online?
3) For the past 3 years on average in comparison with similar companies in your business/trade, how did your Business/Trade online perform generally?

The answers to these questions are gauged on a Likert scale of 1=very low, 2=low, 3=moderate, 4=high, 5=very high.

The measurements for the independent variables were taken from numerous sources. Technology Digital Economic and Digital Economic Regulation were sourced from Mounir Mahjoubi Minister of State for the Digital Sector, 2016. The items for Digital Human Resource Quality and Digital Economy Taxation System, were taken from Indonesia Australia Partnership For Economic Government, 2017. The measurement for the variables under these constructs were measured on a Likert scale of 1 to 5 with 1 representing strongly disagree and 5 strongly agree.

However, before the survey was carried out the questionnaire was drafted and discussed with two professors at the Study Program of Management and Business of the High School Economy Cipasung Tasikmalaya and Ministry of Industry and Trade. After amendments to the draft the questionnaire were tested on 20 business managers with regards to the validity of the contents and whether the wordings were easily understood. The feedback from the 20 managers was generally positive, although there were some recommendations for further improvement.

The amended questionnaire was used for the pilot test on Company owners and managers. One hundred Company of E Commerce were contacted and 80 responded positively to participate in the pilot test. The questionnaire was administered either face to face or through the email. Factor analysis was conducted on the data to determine the number of factors and their reliability. The results of the pilot test show that the independent variables were grouped into 6 factors. Further test using the reliability test showed that the factors have reasonably high Cronbach alphas. Table 1 shows the factors emerging from the pilot test and Cronbach alpha values.

Table 1: Pilot Test Results

No	Name of Factors	Cronbach alpha
1	Technology Digital Economy	0.854
2	Digital Human Resource Quality	0.935
3	Digital Economy Regulation	0.896
4	Digital Economy Taxation System	0.871

The pilot test results showed that the 6 factors have Cronbach alphas ranging from 0.854 to 0.935, which are deemed acceptable. The dependent variable was also factor analyzed and the results showed that they form one factor known as financial performance with a *Cronbach alpha* of 0.910.

Population and Sample

The sample for this study is derived from Company of E-Commerce directory in Bandung West Java Indonesia. According to the Supervision of Business Competition (KPPU) (2011), there are 750,000 E Commerce in Indonesia in 2015. This number makes up about 89.65% of all businesses in the country. This includes all categories of businesses from manufacturing to service and to agriculture. This study focused mainly on the manufacturing and service sectors only and also companies which have 5 employees and above only.

The Trader Census Report 2016 noted that there were 42,155 e- commerce and 622,509 services e- commerce in Indonesia. Ideally this study should target to obtain a minimum of 387 companies as the sample (Bambang Sudaryana, 2018). And this sample should be obtained randomly. But the ideal is not always achievable due to various constraints such as co-operation of respondents, time and cost constraints.

Two enumerators were used to contact and visit the firms on the list beginning April 2016. But after two months of following closely adhering to teaching of random sampling in data collection, only 30 responses were successfully obtained. This was due to the reluctance of the company to participate, the company has moved, the owner or manager was always unavailable, or the company has closed down. The random sampling could not be adhered to. From then on convenience sampling was used, in other words data were collected from whichever e-commerce that was willing to participate in the research. After a further 4 months, 175 useable responses were collected.

The profile of respondents is presented in Table 2.

Table 2: Profile of Respondents

Variables		
Owner	81	46.3
CEO	33	18.9
Senior Manager	36	20.6
Middle Manager	25	14.3
Educational Level		
Secondary School	36	20.6
College	50	28.6
University	76	43.4
Professional	13	7.4
Total	175	100

Table 2 shows the characteristics of respondents. The majority of the respondents were owners or majority shareholders (46% and CEOs 18%). Thus, they are expected to be able to give relevant answers to the questions. Majority of them were also university graduates (43%) and 28.6% were graduates of polytechnics.

Table 3 shows the profile of the e-commerce in the sample. Table 3 highlights the characteristics of the sample. The firms in the sample comprise service, manufacturing and trading companies with the majority in services and trading. More than 48% of the firms were recording sales of between RP 500 k to RP 5 million. In terms of the number of employees, majority of company had between 6 and 50 employees (64%). 61.7% of the firms had between 3 to 10 years existence in the business.

Table 3 highlights the characteristics of the sample. The firms in the sample comprise service, manufacturing and trading companies with the majority in services and trading. More than 48% of the firms were recording sales of between RP 500 k to RP 5 million. In terms of the number of employees, majority of company had between 6 and 50 employees (64%). 61.7% of the firms had between 3 to 10 years existence in the business.

Table 3: Sample Profile

Variable	Category	No of Respondents	Percent
Business sector	Services	68	38.9
	Manufacturing	44	25.1
	Trading	63	36.0
Annual Sales (RP)	<RP 500k	62	35.4
	RP 500k – RP 1mil	46	26,3
	RP 1mil – RP 5mil	39	22.3
	RP 5mil – RP 10mil	17	9.7
	RP 10mil – RP 25 mil	9	5.1
	RP 25mil – RP 50mil	2	1,1
No of employees	5 employees or less	47	26.9
	6 to 10	62	35.4
	11 – 50	50	28.6
	51 – 100	12	6.9
	101 – 150	4	2.3
No of years in business	1 to 3 years	31	17.7
	3 – 5 years	53	30.3
	5 – 10 years	55	31.4
	10 – 20 years	23	13.1
	>20 yrs years	13	7.4

National Economy Development in the Sample Table 4 shows the National Economy Development in the sample.

Table 4 shows that sampled National economy development is very encouraging. In terms of National Income, 65% of the economy development exhibit moderate to very high growth. In

terms of income percapita growth, more than 90% of the report moderate to very high growth rate.

In comparison to e-commerce, 77.6% of the respondents report that they have moderate to high compared to their competitors.

Table 4: National Economy Development

Economy Development Dimension	Frequency	%
National Income Growth		
Very low	30	15.3
Low	37	18.9
Moderate	51	26.0
High	41	20.9
Very High	37	19.9
Income per Capita Growth		
Very low	2	1
Low	13	6.6
Moderate	51	32.1
High	63	24
Very high	67	34.2
Public welfare growth		
Very low	0	0
Low	44	22.4
Moderate	104	53.1
High	48	24.5
Very high	0	0

Data Analysis

After conducting a factor analysis for the independent variables, it was found that 6 constructs emerged from all the independent variables. A rotated factor analysis was conducted on the data. The results are given in Table 5.

Table 5 shows the results of factor analysis. The results show the existence of 6 factors or dimensions of branding instead of 4 as suggested in the literature and the proposed model. Therefore, the model has to be modified to include the variables that emerged from the factor analysis.

The factor analysis results also indicate that the factors have to be renamed to reflect the variables in the factors. So the new factors or dimensions are: Technology Digital Economy, Digital Human Resource Quality, Digital Economy Regulation, Digital Economy Taxation System, E-Commerce Associations , and Marketing

The resulting factors were tested for reliability and the Cronbach alphas ranged from .910 to .751, which are regarded as very good.

Factor Analysis of Company Performance

Table 6 shows the result of factor analysis on company performance variables. The results show that the performance items were loaded into one factor with coefficients of greater than 0.7. When tested for reliability, the Cronbach alpha was .655, which is acceptable. Thus, performance is treated as one variable for further analysis.

Table 5: Factor Analysis of Independent Variable

Items	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6
Technology Digital Economy						
Application Services	813					
Content Services	.750					
bandwidth limited	.740					
foreign OTT services	.720					
principle license from the investment	.715					
agency	.705					
types of OTT services that will be	.698					
provided	.617					
OTT service provider	.534					
software that enables communication	.520					
services						
Content Services over the Internet are						
the provision						
Internet access services						
Digital Human Resource Quality						
Electrotechnology engineers		.739				
ICT professionals,		.704				
Information and Communication		.698				
technicians		.647				
Electronics and Telecommunications		.637				
installers		.635				
Electronics and Telecommunications		.631				
repairers		.599				
Operator		.578				
Programmer						
Designer						
Surveyor						
Digital Economy Regulation						
Digital Single Market (DSM) strategy and			.792			
follow-up actions;			.748			
Regulatory mechanisms, and challenges						
relevant to the digital economy			.689			

The privacy regulatory framework affecting both electronic communications service providers whether regulations deter new entrants and stifle innovation; whether regulation is practical and enforceable given			.676 .601			
Digital Economy Taxation System Value Added Tax Income Tax Platform marketplace Equalization Levy Rules (EQL Scheme				.756 .689 .653 .649		
E-Commerce Associations Our associations with established cos help our performance We adopt co-branding with our associates Our customers prefer established brands to ensure quality As Agents or resellers we get support from our principals					.761 .733 .622 .576	
Marketing strategies Our brand is well positioned to withstand competition We are involved in brand design and development Branding mission and objectives are well shared by our employees						.701 .685 .621
Reliability (Cronbach alpha)	.910	.862	.800	.760	.706	.751
	KMO = .771					

Table 6: Factor Analysis & Reliability of Company Performance

Company Performance	Factor Loadings
Average profit	.748
Average sales growth	.741
Company's profit compared to industry	.817

Cronbach alpha = .655, KMO= .639

Regression Results

The data were put through SPSS regression analysis after testing for outliers, normality, multicollinearity, homoscedasticity and autocorrelation. The results of regression analysis are shown in Table 7.

Table 7 shows that the model is significant with adjusted R^2 of .230, F value of 11.41 and Durbin-Watson statistics of 1.87. It shows that the Digital economy explain 23% of the variations in the dependent variable, i.e. National Development Economy.

Table 7: Results of Regression Analysis

Variables	Std Beta	t-value	Sig
Technology Digital Economy	.325	5.54	.000
Digital Human Resource Quality	-.035	-.503	.616
Digital Economy Regulation,			
Digital Economy Taxation System	-.066	-.573	.567
E-Commerce Associations ,	.168	2.412	.017
Marketing Strategy			
	-.140	-1.889	.061
	.299	4.337	.000

Dependent variable: National Economy Development
R2 = 0.253, Adj R2 =0.230, F-value = 11.411, Sig. = 0.000, Durbin Watson =1.870

The three dimensions that significantly contribute to performance are Technology Digital Economy (β= .325, p< .01), Marketing Strategy (β = .299, p< .01) and Digital Economy Taxation System (β =.168, p<.05). Therefore, three hypotheses are supported. The other three dimensions of digital economy show negative or no significant relationship with National Economy Development. Thus, the hypotheses related to them are not supported.

Findings and Discussion

The study found a few concluding remarks. Firstly, the model proposed was found to be supported by the data. Even though the explanatory power is not very strong, it is able to explain about 23% of the variations in the National Economy Development. This supports previous studies' findings such as those of PIAAC, 2012 and International Student Assessment (PISA), 2000 stated that economy digital does matter.

Secondly, three dimensions of economy digital have shown to be the ones contributing significantly to the model. These are Digital Economy Taxation System, E-Commerce associations and Marketing strategies. This also supports the results of previous studies, such as those of Autor and Dorn, (2013), Bertschek, Cerquera, and Klein (2011).

Thirdly, three variables were found to be non-significant or negative to contribute to National Economy Development. These are Technology Digital Economy, Digital Human Resource Quality and Digital Economy Regulation. These results are unexpected. They could be due to problems of measurement or the fact that company E-commerce do little of these activities such as media and technology engagement, Technical Digital Economy or concern over Digital Human Resource Quality. It could also be due to the smallness of the sample.

Fourthly, Company E-Commerce may use the findings of this study to help them improve their performance from the perspective of Economy digital. They have to put particular attention to Technical Economy digital, E-Commerce associations and Marketing strategies. This is in line with findings of Kleis, Chwelos, Ramirez, and Cockburn (2012).

Fifthly, the study seems to support the Resource-Based View theory of management that owning intangible, valuable, rare, inimitable and non-substitutable resources will help improve National Economy Development. Digital economy are part of these intangible resources. Thus, this study in a small way contributes to corpus of marketing and management knowledge.

Finally, every research effort is wrought with shortcomings. This one is no exception. The sample is rather small as indicated by the KMO and the less than random sampling procedure was used. Also the sample is taken from a small but significant region of the country. The measurement of variables may also need to be revisited for further improvement.

Conclusion

This study examined the effects of economy digital on National Economy Development in the Bandung West Java Indonesia. The basis was on the Resource-Based View (RBV) theory of management and Contingency theory into four dimensions of Economy Digital, comprising Marketing strategies, Technical Economy Digital, economy digital investment and e-commerce associations, which are related to economy development.

The Regression results show that the model is significant and explains 23% of variations in National Economy Development. Three dimensions of economy digital significantly contribute to economy development. They are Technical economy digital, e-commerce associations and marketing strategies.

The study suggests that National Economy Development can be improved through the use of Economy digital. It also adds support to the RBV theory in that intangible assets contribute

to competitive advantage and National economy development. Further research is recommended into this important aspect of marketing and management.

References

Autor, D., and Dorn, D. (2013). The Growth of Low-Skill Service Jobs and the Polarization of the U.S.

Sudaryana, B. (2018). Quantitative and Qualitative Research Methode , Depublish, Yogyakarta , Indonesia

Bertschek, I., Cerquera, D., and Klein, G. (2011) The Impact of Internet in OECD Countries, OECD Digital Economy Papers, No. 200, OECDPublishing, Paris. http://dx.doi.org/10.1787/5k962hhgpb5d-en

Winarno, B. (2007). Kebijakan Publik : Teori dan Proses Edisi Revisi, Media Presindo. Yogyakarta. 2007

David, (2011). Economic Digital, Indonesian Financial Departemen , High School of Accountant Science Of Indonesia

Dess, Lumpkin, & Eisner. (2014). "The Employer Size-Wage Effect," Journal of Political Economy, University of Chicago Press, vol. 97

Indonesia Australia Partnership For Economic Government. (2017). Effective economic institutions and infrastructure in Indonesia

Indonesia Bank, (2015). Laporan Perekonomian Indonesia Tahun 2014 (INDONESIA ECONOMIC REPORT

International Student Assessment (PISA). (2000), Adult literacy, numeracy and problem solving skills in England Department for Business

Kleis L., Chwelos, P., Ramirez, R. V., and Cockburn, I. (2012). Information Technology and Intangible Output: The Impact of IT Investment on Innovation Productivity, Information Systems Research, 23(1)

McKinsey & Company. (2015). Big data: The next frontier for innovation, competition and productivity, McKinsey & Company, June, available at: http://www.mckinsey.com /~/ media/ McKinsey/ dotcom/Insights%20and%20pubs\MGI/Research/Technology%20and%20Innovation/Big%20Data/MGI_big_data_full_report.ashx.

Mounir Mahjoubi Minister of State for the Digital Sector. (2016). "France-Japan Startup Evening," an event for supporting startups in Japan and France, which was held with the opportunity provided by the release of the joint statement

OECD. (2015). New perspectives on ICT skills and employment, DSTI/ICCP/IE(2004)10/FINAL

PIAAC, 2012 , The International Survey of Adult Skills 2012: Adult literacy, numeracy and problem solving skills in England Department for Business, Innovation and Skills 1 Victoria Street London SW1H 0ET www.gov.uk/bis Research paper number 139 October 2013

Supervision of Business Competition (KPPU), 2011, Financial Report of Supervision of Business Competition (KPPU)

The Center Prakarsa Studies, (2013). Communicate with stakeholders (CSOs, policy makers, politician, community leaders, businessman, scholars, etc) to keep them informed of the work and product of the Prakarsa

Venkatraman and Ramanujam. (1986). Measurement of business performance in strategy research: A comparison of approaches. Academy of Management Review, 11(4): 801–814