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Bridging Digital Divide and Rural e-Goverment (Smart Kampung): Evidence from Banyuwangi, Indonesia

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ABSTRACT

Currently humans can not be separated from using of technology. The more complex the problem, the need for technology continues to be sought. Unfortunately, even though technology is needed, digital divide still occurs. Digital divide occurs at all levels including at the local level. Villages in Indonesia require the penetration of information and communication technology in an effort to improve the quality of life. This study aims to explain the relationship and dynamics that occur with the presence of ICT at the government level with rural communities in Banyuwangi district. Furthermore, this study seeks to illustrate the impact on the development of ICT at the village level. The results showed that internet penetration was still a deterministic technology rather than a deterministic socioculture. The internet and rural e-government as its derivatives are like goals, not tools to achieve goals. The digital divide still seems clear. This is due to five main dimensions, namely the technical dimension, economic inequality, skills inequality, inequality of use, and inequality of social support. The impact then occurs technology alienation. For the village, digital inequality is not merely a matter of these five dimensions, but also means social, economic, political and cultural inequality. Technology plays an important role in providing intelligent and friendly public services to the community. There is a power relationship in the digitalization of technology in the field of public services in the form of domination of power over the community. Technology is a must to be accepted and applied by society.

Keywords: *ICT; Technology determination; Digital Divide;E-Government; Rural*

INTRODUCTION

The presence of information and communication technology especially in government bureaucracy is recognized as being a catalyst in government administrative reform (CEG, 2001; Heeks, 1999; Kraemer & King, 2003; Helbig, et.al, 2005). Many researchers claim that information and communication technology used in government has

tangible benefits such as improving service quality, efficiency in the use of budgets, forms of transparency and accountability and making government policies and programs run more effectively (Bourquard, 2003; Garson, 2004; Gartner , 2000; Grönlund, 2001; Moon, 2002; Wauters, 2006). The use of information and communication technology in government is known as electronic government / e-government (Kraemer, et al., 1978; Danziger and Andersen, 2002; Ho, 2002). E-government is not without problems although it produces many benefits. One of them is a Heeks study (2003) which states that many e-government projects fail to be implemented mainly in developing countries until the average failure reaches 85%. This failure means that e-government has not been able to fully prove that e-government is more efficient, effective, transparent and accountable (Cook, et al, 2002; Davies, 2004; Garson, 2004). This previous study must be a valuable lesson for third world countries including Indonesia.

Data shows that Indonesia is currently ranked 7th in the e-Government Development Index at the ASEAN level (EGDI, 2018). At least this indicates two things. First, the digital divide is still clear between the internet literate and the blind. This also means that the need for internet penetration especially at the village government level is still needed. The second of these data does not correlate with the increase in the number of internet users this year reaching 171 million people or 64.8 percent of the total population. Despite a significant increase in the number of internet users, unfortunately the overall increase of netizens across the country, around 38.4 percent of people living in rural areas did not have internet access. This means that the digital divide is directly proportional to the social and economic inequality of the people. So it is not surprising that digital disparities occur at the local (village) level rather than at the city / district level. So it is not surprising when the term digital divide is also to capture the complexity of inequality that occurs between villages and cities (Hargittai, 2001).

The impact of information and communication technology (ICT) on rural development is an ongoing issue. In most developed countries, many people benefit from using this valuable resource. However, people who are less technologically advanced cannot take full advantage of information and technology resources that can help improve their socioeconomic status (Alam and Imran, 2015). This is in line with Christian Fuchs (2019) which states that ICT has produced not only a stronghold of optimism, but also pessimism. Pessimists say that with ICT will give birth to digital dehumanization, alienation 2.0, exploitation networks and the rise of surviving society. In the stronghold of optimism, ICT breeds creative innovation, participatory culture, networking activism and democratization. So unfortunately if this resource is not used optimally, because of the increasingly complex problems, the need for information and communication technology will be needed (McKinsey, 2016).

But it seems that optimists are dominant now. The dominance of this optimism block takes place across structural lines from global, national to local levels. At the global level, for example the NSTC Committee of Technology (2016) says that progress in artificial intelligence has opened up opportunities in human tasks. At the national level the term industrial revolution 4.0 emerged; era of disruption; digital marketing; digital government, smart cities and others. This term is like "God coming out of an artificial intelligence machine (Schiller, D, 1999; Fuchs, C. 2015). At the local level, the dominance of optimism continues. Digital villages, digital agriculture, rural e-government and other terms. This term continues to develop and become a trend in the main village like in the village on Java Island.

One of the districts that undertakes information and communication technology-based development in an effort to answer the problem is Banyuwangi district in East Java Province. Banyuwangi is one of the examples in the development of internet strengthening in the village. In November 2019, the government received the Digital Public Service Awards for strengthening villages through the "Smart Kampung" program. This district is considered by the central government and other non-profit organizations to be successful in strengthening villages and services to the community through digital technology, namely Smart Kampung. This is in line with several studies that rural areas which are often considered to lack resources and lack of skills can actually benefit from the benefits of digital initiatives (Malecki, 2003; Townsend et al., 2013; Erdiaw-Kwasie et al., 2014). Many cities / regencies in Indonesia learn from Banyuwangi to overcome the digital divide, especially villages. This paper explores the roles, opportunities, challenges and digital models divide in rural areas to solve the digital divide especially for rural areas. Furthermore, this study seeks to illustrate the impact on the development of information and communication technology at the village level. This was done because internet studies and their use both at the village government level and villagers have not been done much (Jakarta Post, 2019).

LITERATURE REVIEW OR RESEARCH BACKGROUND
Rural Digital Divide
The digital divide - the gap between the "haves" and "have-nots" to ICT access - is created not only by unequal access to technology but also through the lack of real engagement and use of the technology, and concerns about that use (Selwyn, 2014). Norris (2001) described the digital divide as every inequality within the digital community, including access between men and women, rich and poor, and also developed and developing nations (Norris, 2001). There are two forms of digital divide access and the ability divide, and the inequality of ability to use ICT among those who already have access (Dewan & Riggins, 2005). In the Indonesian context, unequal participation has resulted to a degree from unequal access to information. However, education and literacy levels have even more strongly influenced the capacity to engage with Internet usage (Hill & Sen, 2005).

Rural e-Government
There is no clear consensus about the concept or definition of e-government; however, there are some common elements between definitions (Holden, Norris, & Fletcher, 2003). Definitions range from descriptive to value-laden. In general terms, electronic government is the use of information and communication technologies in government settings. From an extensive review of current e-government literature, two dominant approaches can be identified (Gil-García, 2005): (1) transformational approach and (2) contingent approach. Talking about transformation approach is similar to technological determinism not social determinism. This approach emphasizes the transformational power of information technologies and their impacts on organizational structure and outcomes as e-government benefits. With this approach several benefits are highlighted such as increased productivity, improved decision making, decentralization, reduced cost, increased revenues, integrated services (Danziger & Kraemer, 1985; Jenster, 1987; Roldan & Leal, 2003; Helbig, 2005). Other benefits are expected to come almost automatically and are considered "the reasons for embracing e-government as a means of reforming public management and contributing to broader policy objectives." (Ho, 2002; OCDE, 2003, p. 28). Second is contingent approach.

This approach emphasize in the impact aboaut contextual, environmental, institutional, organizational factor impose regarding the selection, design and use of ICT (Caffrey, 1998; Dawes & Pardo, 2002; Garson, 2003; Landsbergen & Wolken, 2001; Pardo & Scholl, 2002). Different theoretical views have suggested different factors that are considered relevant to understanding information technology in organizations. In general terms, success factors can be divided in environmental, institutional, organizational, data related, and technological (Dawes, 1996; Gil-García, 2005).

METHODOLOGY

This research uses a qualitative method with a descriptive approach. Data collection in this study was conducted with a purposive model through interviews and observations. Observations were made to describe the real picture in the field about the conditions of application and the impacts related to the application of information and communication technology both in the village government, in the village and family environment. While the interviews were conducted with a number of informants to get a comprehensive picture of the attitudes, challenges, obstacles and expectations of technology implemented in the village in a digital divide frame. The interviewees were selected based on information extracted and sought related to the digital divide that occurred in the village and village governments. In the process the interview was conducted openly so that the informant was given the freedom to answer the questions given.

RESULTS AND DISCUSSION

Setting of Smart Kampung

One of the districts that continues to innovate and advance is the Banyuwangi district. Under the leadership of Abdullah Azwar Anas, Banyuwangi continued to improve. Banyuwangi district continues to receive awards for service to the community with innovations that continue to be presented. Finally in 2019, the Banyuwangi government was awarded as the best Regency in the Electronic-Based Government System by the Central Government to defeat 416 other districts in Indonesia. One of the awards is because the Banyuwangi government has the first public service mall in Indonesia with 199 services available. Even more interesting, *smart kampung* program with all its applications has also become one of the important things in improving service quality. This program seems to answer the challenges of the central government so that regional regions in Indonesia are competing in empowering their people, especially those in villages. In accordance with President Jokowi's ideals that the development in Indonesia must start from the village or the periphery.

At the beginning of *smart kampung* expectations there are 7 criteria for determining villages as smart villages. The seven criteria cover public services, economic empowerment, health services, development of education and arts and culture, human resource capacity building, integration of poverty alleviation, and legal information. The seven criteria must be applied to villages that have qualifications based on facilities, infrastructure, and human resources so that the sustainability of program implementation can be achieved efficiently. In its development, the government intends to carry out equity for all villages in Banyuwangi district so that the policy is lowered into 14 more detailed criteria so that the fulfillment of qualifications based on facilities, infrastructure, and human resources can be achieved. The

fourteen criteria include free wifi, children's playground, reading corner / village library, alms oxygen / plants / trees, 24-hour office guard, clean toilet, gate open 24 hours, honor hunter task force, information board / openness, space lactation, office lighting, diffable-friendly, ICT-based services, and public complaints. These criteria are then used as a reference in the *smart kampung* evaluation system. With the change in policy, it can be analyzed that the direction of developing *smart kampung* emphasizes improvements in public service aspects.

The Smart Kampung program in Banyuwangi regency is held based on the policy foundation regulated in Banyuwangi Regent Regulation No. 18 of 2016, concerning the integration of village-based work programs through *smart kampung*. Smart Kampung is a community development in the village community by utilizing resources efficiently so as to form a life order in accordance with local customs and the norms that apply therein. Following the objectives of the establishment of the *smart kampung* program include (1) synergizing the work programs of each agency so that they can be carried out effectively, efficiently, and on target, improving the function of the village government in supporting the implementation of district government work programs. (2) Improving the function of services to the community so that it can be directly enjoyed by the lowest strata of society. (3) Increasing community participation and participation in the implementation of district government work programs. (4) Facilitating the community to obtain integrated services.

The development of innovation in smart kampung forms a categorical characteristic of service delivery in each village. These innovations can be categorized based on the intensity of technology use. The first category with the lowest intensity of technology utilization, is to improve services by providing contact persons via sms gateway or social media. With this service the community can contact the village government for sudden needs related to population administration through the contacts provided, so that the village government can respond with information that the community must prepare so that the data can then be processed according to the applicant's needs. In this category the intensity of technology utilization has not been carried out to the maximum, the data entry process is still done manually by the village government so there is still a risk of data entry errors. In addition to the semi-traditional process, the public also has not been directly related to the utilization of online service system technology even though it uses technology services that can be reached by the public such as mobile phones; personal computer or smart phones.

The second category has a higher level of intensity of technology utilization by using smartphone application services and self service machines. In this service the community can access public services based on smartphone applications and self service machines through the login system and applications available at the village government. With the login system, it means that the population identity data of the residents has been connected to the existing system within the village, so that the data entry process is carried out automatically by the system. The applicant community can use the system access by selecting the required request services, then the community only needs to wait for the approval process by the village head so that the correspondence processing can be carried out. The approval process by the village head is also done online through a special application by the village head who is connected to the entire system of accounts in the village scope. In this category the community can be directly involved with the e-government system so that the intensity of the use of technology has been done well. Both innovations with the use of mobile phones or smartphones are also considered less universal because not all rural communities have and are able to use them. The problem is then corrected by the innovation of making self service machines by bringing novelty through the login system

using a KTP scan, so that it can be used universally by the public. At the same time it was balanced with the socialization of the use of these services.

Power Relation in Digitalization

      The government is in control of the ongoing order of aspects of life in society. Some things that become the urgency of the government's existence are problems of development, economy, population, to natural resources. In order to overcome the various problems that occur, we need the right solution from the government that can be poured through policies or the implementation of certain programs. One solution that can be applied is by utilizing technological developments to give birth to a government that is healthy, intelligent and able to adapt to the current developments of the times.

      Smart Kampung is one of the innovations of the Banyuwangi Regency government to create a more advanced and effective government system as the demands of the times. Engaged in technology, Smart Kampung provides public services for the community to be more effective and efficient. Smart Kampung carries concepts such as smart cities which emphasize the use of technology to overcome various problems that occur in the midst of people's lives (Baru, et al., 2019).

      The Smart Kampung program was developed in the form of a service application that is used to facilitate public access to participate in and receive online-based services. The village government also provides Automated Pavilion Machines to process population data needed by the community, such as ID cards and family cards. Factors of human resources and institutions (institutions) have an important role in the development of Smart Kampung. In addition, technological developments are also an important factor in the development of digital technology-based public service innovations. All of these factors are integrated in developing the Smart Kampung policy.

      The Smart Kampung policy was developed by the Banyuwangi Regency government in 2015. Smart Kampung was created to create a government regulatory system that is friendly to the community to overcome various problems wisely and intelligently by utilizing the potential of existing technology-based resources that are effective and efficient (Baru, et al. ., 2019). Smart Kampung in Pesanggaran Village began to be intensified in 2019 by the village government. This has received a positive response from the people of Pesanggaran Village.

      Through socialization activities, the village government internalizes the values that influence people's mindsets about science and technology. The dissemination of knowledge to individuals is carried out in many ways so that individuals have the same perception as the creators of the discourse (Sholikhah, 2020). The form of power relations with knowledge is based on the cognitive abilities of people who are dominated and stigmatized by power so that it gives birth to a cognitive foundation to follow the power makers in an era. One of the media in spreading power is through politico-ideology. Politics is a suggestion to spread the form of power relations.

      In its development, the political-ideological media is supported by the presence of technology as a tool of power. Technology is intended to facilitate the activities of the community and government officials. The development of technology in supporting the running of the wheels of government in Pesanggaran Village is used in the aspect of public services. In its implementation, the community is normalized to be able to follow the Smart

Kampung policy that has been set by the Banyuwangi government. The existence of technology then shifts from a "tool of power" to a goal.

Technology should be used as a tool to facilitate public access in reaching all public services from the government, such as administration to health. However, the perception of technology shifts into a necessity that is aimed at certain interests. This condition forces all elements of society who are bound or not bound by the system to be able to use the technology. So that stigmatization of certain individuals and groups who cannot meet the expectations of these demands is considered not in line with shared ideals.

Like power relations according to Foucault, power relations are concepts of power relations which consist of power practices from subjects to objects through various media obtained through manipulative and hegemonic means (Hanifah, 2018). The village government as the holder of power has the authority to create a mindset by inculcating knowledge through Smart Kampung as an innovation of digitalization of technology. These conditions shape the knowledge of the community which is regulated and controlled by the domination of the village government.

According to Foucault, power relations always exist in people's social life. This is practiced through social relations, communication, and various other components that surround people's lives (Kebung, 2017). Power becomes a form that cannot be located because every structure and relationship in society has a proportion of power. Strategically, power is linked to various potentially interrelated positions in a system.

There is a strong relationship between knowledge and power. Knowledge is born from power relations and at a certain point power is also seen as knowledge (Kebung, 2017). This shows that the existence of power is always integrated with knowledge and vice versa. With the digitalization of applied technology, it can support the village government in carrying out its duties and responsibilities. Utilization of digitalization technology in public services in Pesanggaran Village has a specific purpose. Technology as a tool but used as a goal to avoid losses, such as illegal levies both from the government and the community.

The use of technology used in Pesanggaran Village is considered effective in serving the community with an online system. In addition, the existence of digitalization of technology can reduce fraud committed by certain government elements. From the perspective of Foucault's power relations, the village government has the power to run the government system by applying digitalization of technology. The village government as a miniature state, also has a great responsibility in advancing and prospering people's lives.

The power possessed by the village apparatus is closely related to knowledge and discourse. It is this knowledge and discourse that will create a power that can lead to discipline (Ilham and Fauzi, 2019). Power appears in social practices that include those meanings and meanings that shape and influence individual behavior. So that by implication the village apparatus can control and normalize every individual in the community. the existence of digitalization of technology in Pesanggaran Village is a form of truth instilled by the village government in the community. As Foucault's concept of power states that power is built through knowledge and that knowledge is a truth (Ilham and Fauzi, 2019).

Power relations work by influencing and changing one's way of thinking so that change can occur (Wiradnyana, 2018). In carrying out the government system, village officials apply power in the form of public policies, such as the application of digitalization of technology in Pesanggaran Village, Banyuwangi. Digitalization of technology in Pesanggaran Village is more actualized in public services. Village government institutions carry the responsibility of the central government in carrying out digitalization of technology in the

village. Therefore, the village government has the authority to implement a bureaucratic system with power over knowledge and truth.

CONCLUSION

Social inequality is the root of the digital divide, seen as a different skill for using information sources and opportunities. There are several divisions of access in the context of digital divide, namely the motivational gap, access gap, skill access, and user access. Digital divide is also a true part of social inequality and more broadly inequality in global aspects. Usually this divide happen in developing countries including Indonesia, especially rural communities, old age population, less educated family members, and low income families. Again this happens at the local (village) level Digital inequalities in the village must also be considered in five dimensions: inequality in technical equipment, inequality in use autonomy, inequality in skills, inequality in the availability of social support, and variations in use. Digital technology also forms a complex relationship between new media and social change, especially in the emergence of technology-oriented ideology and new media. For this reason, a new set of social, emotional and cognitive abilities is needed to enable individuals to face challenges and adapt to the demands of digital life.

Why does e-government in most countries fail? Because the most important factor in e-government is the ease of people accessing the government and building trust in the security of community data security. Some countries that fail to implement e-government are factored in by the conditions of the people who are not ready to change the pattern of government relations with the community. In the case of implementing e-government in Banyuwangi, the village government institution that has the closest access to the community bridges the community in changing the pattern of relations of government and society. the inability of the community to master the use of technology, was gradually overcome by the assistance of the village government in accessing it offset by various innovations of the village administration to bring technology closer to the community. Another issue of e-government failure factors is the level of public trust that can be built through increasing the accessibility of the community to the government so that the community can assess the security of the privacy of population data that is utilized and managed by the government appropriately. Relationships are created by building relationships. With the changing pattern of government relations with the community through the smart kampung program, Banyuwangi district government also controls the political direction of the village administration to focus on public services. The ideal politics regarding efficient public services to the community that previously could not be done could be realized with the existence of technology where the whole system could be connected.

REFERENCES

Aswicahyono, H., Anas, T., & Ardiyanto, D. (2004). Internet Providers : An Industry Study In P. Drysdale (Ed.), The New Economy in East Asia and the Pasific. London: Preager.

Bourquard, J. A. (2003). *What's Up With E-Government?* State Legislatures Magazine, National Conference of State Legislatures. Available: http://www.ncsl.org/programs/pubs/slmag/2003/303egov.htm [2005, April 6].

Caffrey, L. (Ed.). (1998). *Information Sharing Between & Within Governments*. London: Commonwealth Secretariat.

CEG. (2001). *e-Government. The Next American Revolution*. Washington, DC: The Council for Excellence in Government.

Cook, M. E., LaVigne, M. F., Pagano, C. M., Dawes, S. S., and Pardo, T. A. (2002). *Making a Case for Local E-Government*. Albany, New York: Center for Technology in Government.

Danziger, J. N. and K. V. Andersen (2002). The Impacts of Information Technology in Public. Administration: An Analysis of Empirical Research from the "Golden Age" of Transformation." *International Journal of Public Administration* (25)5, pp.591-627.

Davies, T. R. (2004). *By passing the Revolution. Could it be that e-gov was never on track to transform the performance of state and local governments?* Governing.com. Available: http://governing.com/articles/10tech.htm.

Dawes, S. S., and Pardo, T. A. (2002). Building Collaborative Digital Government Systems. Systematic Constraints and Effective Practices. In W. J. McIver & A. K. Elmagarmid (Eds.), *Advances in Digital Government. Technology, Human Factors, and Policy* (pp. 259-273), Kluwer Academic Publishers, Norwell, MA.

Dewan, S., & Riggins, F. J. (2005). The digital divide: Current and future research directions. Journal of the Association for Information Systems, 6(12), 298 - 337.

Dijk, J. A. G. M. v. (2005). The deepening divide : inequality in the information society. Thousand Oaks, Calif: Sage Pub.

Erdiaw-Kwasie, M.O., Khorshed, A., Shahiduzzaman, M., (2014). Engagement,empowerment and rural mining communities. In: Keppell, M., Reushie, S. (Eds.), Proceedings of the Digital Rural Futures Conference. University of Southern Queensland, Australia, pp. 36e37.

Fuchs, Christian (2019). Digital Objects, Digital Subjects : Interdisciplinary Perspectives on Capitalism, Labour and Politics in the Age of Big Data, London. University of Westminstre Press. UK.

Fuchs, Christian; Mosco, Vincent (2015) Marx in the Age of Digital Capitalism, Boston. Brill.

Garson, G. D. (2003). Toward an Information Technology Research Agenda for Public Administration. In G. D. Garson (Ed.), *Public Information Technology: Policy and Management Issues*, Idea Group Publishing, Hershey, PA.

Garson, G. D. (2004). The Promise of Digital Government. In A. Pavlichev & G. D. Garson (Eds.), *Digital Government: Principles and Best Practices*, Idea Group Publishing, Hershey, PA.

Gartner. (2000). *Gartner Says U.S. E-Government Spending to Surpass $6.2 Billion by 2005*. Gartner. Available:http://www.gartner.com/5_about/press_room/pr20000411c.html.

Gil-García, J. R. (2005). *Enacting State Websites: A Mixed Method Study Exploring E-Government Success in Multi-Organizational Settings.* Unpublished Doctoral Dissertation, University at Albany, State University of New York, Albany, NY.

Grönlund, Å. (Ed.). (2001). *Electronic Government: Design, Applications, and Management*. Hershey, PA: IDEA Group Publishing.

Hargittai, Eszter. (2001). Second-Level Digital Divide: Mapping Differences in People's Online Skills.

Heeks, R. (2003). *Success and Failure Rates of e Government in Developing/Transitional Countries: Overview*. University of Manchester. Available: www.egov4dev.org/sfoverview.htm.

Helbig, et.al. (2005). Understanding the Complexity in Electronic Government: Implications from the Digital Divide literature. *Proceedings of the Eleventh Americas Conference on Information Systems, Omaha, NE, USA.*

Hilbert, M. (2011). Digital gender divide or technologically empowered women in developing countries? A typical case of lies, damned lies and statistics. Women's Studies International Forum, 34.

Ho, A. T.-K. (2002). "Reinventing Local Government and the E-Government Initiative" *Public Administration Review,* (*62*)4, 434-444.

Holden, S. H., Norris, D. F., and Fletcher, P. D. (2003). Electronic Government at the Local Level: Progress to Date and Future Issues. *Public Performance and Management Review, 26,* 4, 325-344.

Jakarta Post (2019). Indonesia has 171 million interest users: Study. Indonesia. Jakarta Post. Retrieved from https://www.thejakartapost.com/life/2019/05/18/indonesia-has-171-million-internet-users-study.html

Kraemer, K. L., et al. (1978). *Local Government and Information Technology in the United States*. Paris: OECD Informatics Studies #12.

Landsbergen, D., Jr., and Wolken, G., Jr. (2001). Realizing the Promise: Government Information Systems and the Fourth Generation of Information Technology. *Public Administration Review, 61,* 2, 206-220.

Malecki, E.J., 2003. Digital development in rural areas: potentials and pitfalls. J. Rural Stud. 19, 201 - 214.

McKinsey Global Institute. (2016). McKinsey Global Institute report: Unlocking Indonesia's Digital Opportunity. Retrieved from https://www.mckinsey.com/~/media/McKinsey/Locations/Asia/Indonesia/Our%20Insights/Unlocking%20Indonesias%20digital%20opportunity/Unlocking_Indonesias_digital_opportunity.ashx

Norris, P. (2001). Digital divide : civic engagement, information poverty, and the Internet worldwide. Cambridge ; New York Cambridge University Press.

Pardo, T. A., and Scholl, H. J. (2002). *Walking Atop the Cliffs: Avoiding Failure and Reducing Risk in Large Scale E Government Projects.* Paper presented at the 35th Annual Hawaii International Conference on System Sciences, Hawaii

Perguna, L. A., Imamul Huda Al Siddiq, & Irawan. (2019). Desa Membangun UMKM: Pendampingan UMKM berbasis Village-Driven Development dalam Penguatan Ekonomi Warga Di Desa Gogodeso Kecamatan Kanigoro Kabupaten Blitar. *Engagement : Jurnal Pengabdian Kepada Masyarakat*, *3*(2), 217-229. https://doi.org/10.29062/engagement.v3i2.62

Schiller, Daniel (1999). Digital Capitalism: Networking the global market system. Massachusetts: The MIT Press.

Selwyn, N. (2014). Reconsidering political and popular understandings of the digital divide. New Media & Society, 6(3), 341e362. http://dx.doi.org/10.1177/1461444804042519.

Thurlow, C., Lengel, L., & Tomic, A. (2007). Computer mediated communication: Social interaction and the internet. London, UK: Sage Publication.

Townsend, L., Sathiaseelan, A., Fairhurst, G., Wallace, C., 2013. Enhanced broadband access as a solution to the social and economic problems of the rural digital divide. Local Econ. 28 (6), 580 – 595.