Benefit and Social Implications of Village Information System in the Village at Karangrejo Village, Blitar Regency

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Abstract: Law on Village Number 6/2014 provides great optimism on rural development. This law makes it possible for villages to have a full authority in building themselves. The allocated fund for village reformation is one of the points covered by such law as a single source of income in the framework of rural development. There are so many ways to make villages have more dignity. One way to develop strong villages with the limitations of infrastructures is by using the Information and Communication Technology. Village Information System (VIS) becomes a form of e-government which is applied in villages. VIS is successfully implemented in Karangrejo village. There are benefits of using VIS as a form of e-government in the village level, first the village is better known in the public. Multiplier effect occur especially in economic aspect. Second the village monograph data is accurate and real time. When something happens in the village like Kelud disaster, the village have accurate data. Properly managed VIS may have positive implications to the level of citizens' participation in building and reforming their village. VIS should be managed transparently and professionally so that the ideals of good governance which eliminate poverty and save data from natural disasters can be achieved.

1 INTRODUCTION

Three years ago articles number 6/ 2014 about Village was born. This law provides great optimism about rural development. Villages are repositioning into sovereign and autonomous subjects in development. With the law, the village has the authority and flexibility in managing natural resources and human resources, also has the authority to manage finances. Ultimately the village can develop strongly for the acceleration of development in Indonesia. Through this law, the village becomes a powerful entity. This is in line with the third principle in Nawa Cita that is building from the periphery. This principle is interpreted as a form of equity between the core region and the periphery to reduce the disparity between regions. Building from the periphery can also be interpreted as building a useful village for the villagers themselves rather than on behalf of the central government project.

There are many ways how to build a strong and dignified village. One way to advance the village in relation to village services and development by using information and communication technology (Carlo et al., 2012). In the all-digital life, Information and Communication Technology becomes a necessity, especially when ICT can be applied in government (Asgarkhani, 2005). ICT in government is considered to increase efficiency, save costs and provide faster service by the government (Moon, 2002; Wauters, 2006). If ICT can be used well by the villagers it will give a good influence for the village, especially a media campaign against the potential owned by the village.

Unfortunately, the utilization of ICT has not been managed optimally by villagers including those in Blitar Regency. This can be understood especially with the limited infrastructure in Blitar district. There is only one village out of 220 villages located in districts that have successfully implemented ICT in services and village builders, namely Karangrejo village. Since last year 2016, Karangrejo village implemented what is called SID *(Sistem Informasi Desa)* or VIS (Village Information System). VIS was born from a range of information technology and software operated by village apparatus to support the acceleration of public service quality improvement to the community (Dewi, 2013). VIS becomes a form of e-government applied at the village level. Through this system people can access

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data and information through a variety of IT tools. Not only the number of visitors in cyberspace can access data but also the number of local community. The multiplier effect of the existence of VIS is felt by the local community both from the social, economic, cultural to political side.

In addition to VIS, this village has a hotspot located in the centre of Karangrejo Village Hall. The existence of hotspots and the internet as a derivative began to change the behaviour of local communities, especially for Gen Y and Gen Z. The village can transform through this new media from the identical with small things to be magnificent and futuristic. From what was formerly unknown to be a great commodity. Internet, VIS and social media as a derivative of a hotspot into a place to build hyper reality and self disclosure villages. Global Village becomes a necessity when optimization of ICT can be used well. Logical consequences of the village should be able to maintain and live together localities and local wisdom so as not to lose the identity as a village. The role of all village resources is needed to maintain local wisdom in the face of information and technology globalization.

This paper will illustrate how this VIS has substantial benefits for the development and strengthening of village potentials when they can be optimally utilized including how VIS transforms the village bureaucracy itself from the real world to the virtual world. Social implications of Village Information System also will discuss in this paper.

2 METHODS

This is an explanatory and exploratory case study on using local e-Government (Village Information System) in Indonesia. Research object selected based on degree of successfulness on using local e-government especially in East Java Province. Karangrejo village on Blitar district receive award from East Java government in their achievement on using VIS so that this place chosen for research object. This study is neither aiming at empirical generalizations, nor is it arguing that its subject is representative of local e-government population. Rather, it seeks to offer a better understanding of the research topic by providing profound analysis of the research inquiry, especially in the region where this area is under researched. Approaching the data collected in this research with an investigative lens, the objective is to expose the richness and complexity of this are of study. Its depth rather than the breadth of the data and analysis in this study that

allows for moving from interpretive reporting to theoretical proposition.

3 RESULTS AND DISCUSSION

3.1 Optimizing VIS in Village

Advantages that have been achieved by human in the field of information and communication technology (ICT) is something we should be grateful for. Because with these advances make it easier for humans in doing the tasks that must be done (Tat-Kei Ho, 2002). Over the last decade, information technologies have been considered one of the most influential ways to change organizations (Laudon and Laudon, 2003)

Basically, technology is created to help human work to be more efficient and effective. Rapid technological developments have an impact on the administration and improvement of public services. Utilization of ICT in governance is known as electronic goverment or commonly abbreviated e-gov. Unfortunately, not many local governments have utilized e-gov optimally for public quality services. In fact, many studies suggest that 85% of e-government projects fail in developing countries at various levels either fail miserably or fail in part (Heeks and others, 2003)

The failure of e-government in developing countries does not mean that we phobia then antipathy in using it. Why? Because Indonesia's chances of progressing and developing are very high. This is shown by the data of internet users in 2010 which was released Communication and Information Departement reached 45 million people (Suryadhi, 2010). Lastly, the latest data released by Kompas mentioned that Indonesian internet users currently reach 88 million people. Even one person in Indonesia has more than one smart phone telecommunication device (Kompas, 2016). Although the number of internet users are still dominated by city residents does not mean the villagers are not internet literate. The year-to-year increase shows the growing number of digital natives and digital immigrants who do not want to miss the development of information technology. Legislation made to support and mandate the use of ICT is also not less. Call it, Law Number 32 of 2004 on local government support to use the ICT. There are more Presidential Instruction number 3 of 2003 on National Strategy and Policy of ICT Development, Presidential Regulation number 81 of 2010 on Grand Design Bureaucracy Reform 2010-

2025 and so on. This existing regulation explicitly mentions the importance of using ICT. There is no justification for local governments with high numbers of ICT users not to optimize the use of ICTs at the District / Township level until the Village.

When viewing Law number 6, 2014 about the Village. This law was born because of the many demands in the village independence instead mandated to utilize ICT in catching up behind the village and the city. The potential of many villages has not been well-explored and well-publicized. Service to the community is still very conventional. If the potential of the village with all its local wisdom can be read in other space, it is not impossible that the global village can be realized. Also when the service to the public with the apparatus transform from conventional to digital, it is not impossible that good governance will be achieved at the village level. One way to publicize and inform the potential is by utilizing the Village Information System (VIS).

Many benefits can be taken if ICT (VIS as a form of it) can be utilized optimally. Based on the report from OECD (The Organization for Economic Co-operation and Development) in Darmawan (2011) there are several benefits of E-Gov when used optimally: improving efficiency in various data or information ranging from collecting, , Providing information and communication both within and between governments (Gil-García, 2007).

The second benefit is improving service to the community, why? Because society does not need to know the structure and complex relationships behind the services provided by the government. Bureaucratic hierarchical structures that seem complicated and long services cut by the existence of this ICT. A third benefit can help socialize government policies including ongoing activities to the community so that stakeholders can share ideas and information regarding a policy. Potential villages that have been buried will also be built through the utilization of ICT (Jahja, 2012). Other benefits can reduce corruption, increase openness and trust in government. The government can also make savings through the process of administration and supply of ICT-based information. Equally important benefits are increasing trust between the government and its people, improving good governance through increased transparency, and the effect will reduce corruption. Similarly, if the aspirations and opinions of the community can be facilitated or accommodated in ICT-based media used by the government, then community

participation in building the village will be built. The impact woke the sense of belonging to the village. Villages belong together and do not belong to a handful of village rulers. When togetherness and participation of villagers to their village are built, village empowerment becomes more dignified and poverty will be slowly reduced.

The use of VIS was started by the village of Karangrejo after Kelud disaster arrived. The Village Government considers the need for the application of ICT as one of the media to anticipate when the disaster comes again which is worried about citizen loss of property, objects, data and also soul. ICT answers the problem of community data whenever a disaster occurs so as to minimize undesirable things such as loss of Identity Card, Birth Certificate, even Certificate of Land. This is shared by Supadi 64 years old villager Karangrejo said:

"The timing of last year's disaster was frightening, let alone it was not the first time. The most powerful was in the 90s. Dark really fitting that time. Fear reappeared fitting in 2014. Fear of losing all as well as loss of important data mas. Deed of land, diploma, let alone to lose family life "
(Waktu kejadian bencana tahun lalu rasanya takut mas, apalagi ini bukan kali yang pertama. Yang terdahsyat dulu waktu tahun 90-an mas. Gelap banget pas waktu itu. Ketakutan muncul lagi pas tahun 2014 mas. Ketakutan kehilangan semua termasuk juga kehilangan data-data penting mas. Akta tanah, ijazah, apalagi naudzubillah sampai kehilangan nyawa keluarga mas)

At the end, the desire of Karangrejo village to have new media devices through ICT is supported by UNDP (United Nations Development Program) in 2015. From 220 villages spread in Blitar district, two villages are selected by UNDP, Modangan village and Karangrejo village to run new media Known as Village Information System (hereinafter abbreviated as VIS). This system is considered effective in order to save the data as well as a storefront and village information boards in cyberspace. The consequence of UNDP's assistance is that villagers voluntarily submit demographic and other data for the purposes of this VIS. For more than two months the village tools together populate the VIS offline to be activated online. The majority of the residents welcomed the presence of this assistance at the same time as they voluntarily submitted their data to the village as Nurul said as the village of Karangrejo:

"Disaster incident then became a learning for the community. Do not imagine the villagers voluntarily submitting the data without us asking. Although there are one or two who have not realized. Citizens like to be moved so that in the future in case of disaster, their data can be well researched in this SID. So alternative solution if for example their data is lost. Hopefully it's not "

"Kejadian bencana lalu menjadi pembelajaran bagi masyarakat. Gak nyangka banget mereka bakal dengan sukarela menyerahkan data-data itu tanpa kita minta. Ya meski ada satu dua yang belum sadar. Mungkin warga seperti tergerak hatinya supaya kedepan kalau pas bencana , data-data mereka bisa terselematkan dengan baik di SID ini. Jadi alternatif solusilah kalau misal data-data mereka hilang, mudah-mudahan sih enggak"

Unfortunately, during the author's search, from these two villages, Modangan village tended to stagnate and even like running this VIS like a project after which the project was completed, it was done their job. Unlike the Karangrejo village that is still actively using this VIS until the visitors as of October has reached 70 thousand people. This village really uses this device optimally for the development and potential of their own villages. VIS is one form of E-Government that has been implemented in the village so it is expected to function can run integrative.

VIS sustainability is a logical consequence of Law No. 6 of 2014. VIS was born from a range of information technology and software operated by village apparatus to support the acceleration of public service quality improvement to society without eliminating traditional efforts (Dewi, 2011). Through VIS, citizens and stakeholders can know the work of their government, to know the potential of the village to be developed. Citizens also have an advantage with the presence of VIS ie they can seek information about the village from anywhere, anytime, and by anyone without having to come to the village government office provided the government provides information in a transparent and accountable manner.

The presence of VIS, ICT utilization programs that had only reached the level of city / district until the sub-district began to penetrate into the village. The number of visitors who continue to increase over time brings movement from below. Citizen participation continues to increase and raises the lesson that the initiative can be carried from below not only from the top including at the village level.

3.2 VIS, Benefit, and Reform Effort

The rapid use and development of ICTs is not a goal but as a means used to achieve greater goals or benefits (Utomo, 2013). Various benefits are felt by this village with the presence of VIS. The principle of accountability or openness in information is done right by this village. One of the efforts in building the openness is to broadcast activities in the village Karangrejo. As a result, with VIS, many people from all over Indonesia visit Karangrejo in the online realm. Recorded more than 54 thousand visitors / October 2016 (look figure 1). This figure is almost close to Garum district population of more than 70 thousand (/blitarkab.bps.go.id). This means that Karangrejo village is well known publicly than other villages in Blitar Regency. If this continues to exist and sustainably it is not impossible that this village will become something big even if it starts from something very small. And it is not impossible also multiplier effect will occur in this village.

The second benefit, the birth of this VIS can save the population data whenever natural disasters occur. Moreover, Karangrejo village is a village directly adjacent to Mount Kelud to the south. It is a disaster and disaster cannot be avoided, but efforts to minimize the impact of natural disasters can be done as early as possible by the village in the face of disasters that often come suddenly. The village must be ready and responsive in the disaster, this VIS was born in the rescue of village residence data (look at figure number 2).
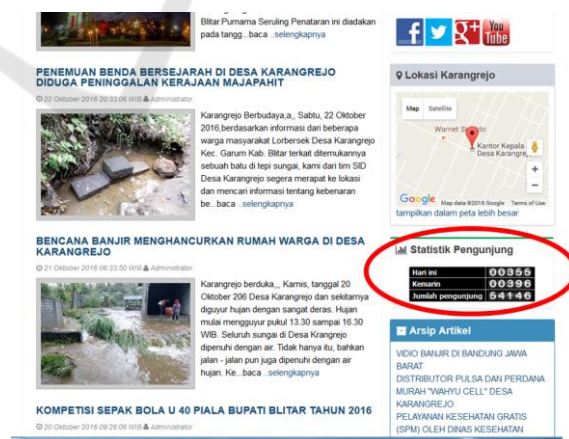

Figure 1: Number of Visitors in Karangrejo Website. (Source:www.desakarangrejo.blitarkab.go.id).

This data becomes very important for both central and local governments when the disaster occurs. The goal is nothing else in order to record

how severe the damage and how much losses due to natural disasters. Equally important this data can be the foundation of the institution of both the government, and other institutions to provide assistance what is most appropriate after the natural disaster. At least for two decades has been happening kelud eruption 3 times in 1990, 2007 and last year 2014 ago. If the village is not ready and resilient in the face of the disaster that occurs the impact of loss and damage generated quite large. This is as stated by the head of Karangrejo village who was born and raised in Karangrejo Sugiana:

Aid from UNDP for VIS development is very helpful for us in making Karangrejo village ready for combat if suddenly disaster comes. Population data is needed to know RW and RT with various population. The system has been made, the operational standard is also ready, so we are sure we are ready if suddenly eruption of kelud mount happen again. Hopefully not yes. Who wants a disaster arrive to us?

Bantuan dari UNDP untuk pengembangan SID sangat membantu kita dalam menjadikan desa Karangrejo siap tempur kalau tiba-tiba bencana tiba. Data-data penduduk dibutuhkan untuk tahu RW dan RT ini banyak lansia, pemuda juga anak-anaknya. Sistem sudah dibuat, standar operasional juga sudah siap, jjadi kita yakin kita siap kalau tiba-tiba letusan gunung kelud terjadi lagi. Semoga saja tidak ya mas. Siapa sih yang mau mas bencana tiba ke kita?

Figure 2: Village Monograph Data is Accurate and Real Time. (Source: www.desakarangrejo.blitarkab.go.id).

The third benefit is to increase village self-reliance and empowerment. Potentials are explored and exposed in VIS in depth, especially the slow economic potential but will inevitably result in the birth of interaction between VIS operators with users who want to just ask or even want to make a sale and purchase transactions. The result of interaction is the economic transactions will happen. If the transaction occurs, the economic improvement of the villagers becomes the next implication. Especially in the village of Karangrejo micro enterprises spread quite a lot ranging from business krupuk sermier, coconut fruit, chicken pieces, and others. Transaction levels have occurred in the VIS in Karangrejo village where the means for interaction between the community and the government have occurred although not yet reached the integration stage. This is confirmed by the statement of Wahyu Purnomo (26 years) as the operator of VIS:

I was entrusted by the Village Head to become an VIS operator. A lot of valuable experience when this trust was handed over to me. For example, when the first use of VIS, VIS is nothing more than data about the community from ID cards, KK, diplomas. The point is about population data. Then, I thought to explore the potential of the village because of the many potentials of the village. Let other people know what advantages of Karangrejo village. I upload the data slowly, alhmadulilah there is a response from parties who want to grab sermier, coconut. If I want to cheat, I can just put all my names into me, but better return to the community.

"Saya diamanahi oleh Pak Lurah untuk menjadi operator SID. Banyak pengalaman berharga pas amanah ini diserahkan saya. Misalnya pas awal awal pakai SID sih lebih banyak soal data masyarakat dari KTP, KK, ijazah. Intinya tentang data penduduk. Makin kesini saya berpikir untuk menggali potensi desa karena banyak banget sebenarnya potensi desa itu. Biar masyarakat lainnya tuh pada tahu keunggulan apa sih di desa Karangrejo. Saya upload dikit-dikit, alhmadulilah lama-lama ada respon dari pihak yang ingin ambil sermier, kelapa. Kalau saya mau curang, bisa aja semua nama saya masukkan ke saya, tapi lebih baik biar kembali ke masyarakat".

In this VIS, the potential of the village is exposed, population data can be downloaded easily, the activities of the village community are also well socialized. Although most of the VIS in Blitar district is still at the level of interaction has not reached the level of transaction more integration but in its implementation has experienced a good progress (Rokhman, 2008). Visitors in VIS continue to increase from time to time to reach the number 54 thousand visitors. This proves that VIS that has not

even one year running well feels the benefits and can continue to be developed to reach the level of integration. When the VIS reaches the integration stage it means that the system already provides the means to transact for the public in using public services i.e. transactions that give rise to agreements that can be accompanied by payments as a result of the enjoyment of public services that have been used. At the same time at the same time the government also provides services conventionally through related offices.

Figure 3: Interaction Level that occurs between VIS operator and Users.
(Source: www.desakarangrejo.blitarkab.go.id).

VIS at the transaction level is like making the village more powerless and becoming a powerful entity with its economic empowerment (see figure 3). Moreover, if VIS has entered at the level of integration. But more effort is needed to enter at that level. Because talking at the highest level is the level of integration of all public services must be provided online and offline. This requires a long time in the village of Karangrejo due to the lack of human resources and supporting infrastructure. Moreover, geographically Karangrejo village does not benefit. The use of VIS requires support and instead supports a number of other important aspects necessary to achieve the expected goals or benefits such as support and leadership commitments, clear regulatory and institutional support, bureaucratic cultural transformation, human resource capacity development, and equally important Support from citizens and stakeholders (Siau and Long, 2006; Kluver, 2005; Edmiston, 2003). The presence of ICT does not mean eliminating conventional efforts without using ICT devices. Instead, the use of ICT is intended to complement and support conventional

efforts that have been used. Both are organized to address the digital divide and make it easy for citizens and stakeholders. Efficiency and effectiveness of activities becomes a necessity.

Another benefit is the decrease in the amount of aid that flows to Karangrejo village such as village funds from the central government (800 million), Jalin Matra from the East Java Provincial Government, ADD (Village Fund Allocation) from Blitar district government and for taxation from the District Government Blitar. The aid that goes to the village government's treasury is not without cause. The logical consequence of the issuance of Law No. 6 of 2014 on villages is one of the reasons why such assistance is available in the village. But no less important is also related to the use of VIS in Karangrejo. Why? Because especially the provincial government, and the central government to know and know about Karangrejo because through the web on VIS. It is not impossible if VIS was taka da in Karangrejo village some help will also evaporate. Not enough until there Karangrejo village in the year 2016 got an exciting achievement associated with the use of VIS. The first VIS operators get 2nd Place Level East Java as the pioneer of Information Technology. Another achievement is the village of Karangrejo got 2nd winner of East Java Province as the village of responsive and resilient disaster. Both achievements are very proud as Sugiana Kades Karangrejo in his speech:

VIS is very helpful to us, the provincial government and central government do not need to come to Blitar when needing village data, all in VIS. Do not think can get a champion on this achievement, the most important work just for the community. Intention only worship. If the achievement is an addition given by God to us and to make us more excited again in improving service to society.

SID sangat membantu kita, pemerintah propinsi sama pusat tak perlu repot-repot datang ke Blitar bila membutuhkan data desa, semua ada di SID. Tidak menyangka juga mas bisa mendapat juara pada prestasi-prestasi ini, yang penting bekerja saja untuk masyarakat. Niatannya hanya ibadah saja. Kalau prestasi itu tambahan yang diberikan Allah kepada kita dan supaya membuat kita makin bersemangat lagi dalam meningkatkan pelayanan ke masyarakat.

Benefits for the benefit received in this community is known as digital opportunity. This means technology is present as a tool in order to

facilitate the welfare and prosperity of citizens. VIS is not a goal in welfare and building its citizens. This tool must be optimally utilized in order to create good governance based on transparency and accountability. VIS benefits have not been felt by other villages in Blitar district so that the utilization of VIS has not been so massive in Blitar district. The direct benefit of VIS is the Karangrejo community who owns the business although the scale is included in the category of SMEs (Small and Medium Enterprises). Why? Because there is a sale and purchase transactions that take place through VIS is a direct impact to their business.

4 CONCLUSIONS

Utilization of ICT and VIS (e-government at the village level) as its derivatives is not merely a mere project, nor is it a salesperson for information technology traders, both hardware and software. VIS is characterized by the use of ICT, but ICT is not the final goal of VIS. ICT is just a means and medium to achieve the goals and benefits of VIS. Implementation in the application of VIS requires more than just ICT development. Implementation of VIS takes a long time and support of all parties for its sustainability because building VIS is not enough to make website (web presence) without any optimization and improvement of service. Building resources without eliminating the potential of local village wisdom becomes a necessity in building VIS. Information that appeals to the public should continue to be well packed for dissemination in order to invite or attract citizens to join and participate in the VIS. If the VIS can be managed well it has positive implications with the level of citizen participation to build the village. Therefore, the movement of VIS usage that utilizes the internet with all its facilities, a lesson that the initiative can be done from below (village). Slowly, the central government paradigm that puts the village as an object will change which in turn the village will be independent, self-reliant. VIS must be managed transparently and professionally in order to achieve village-style good governance, eradicate poverty and save data from natural disasters. Hopefully.

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