



REVIEW ARTICLE

THE IMPLEMENTATION OF *ELECTRONIC GOVERNMENT*-BASED VILLAGE GOVERNANCE  
IN VILLAGE AUTONOMY ERA

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ABSTRACT

Village Autonomy Policy, through a validation of Law No.6/2014 about Village, had given a status for any villages in Indonesia as autonomous region. Village government would have wide rights and discretions in managing village potentials. However, the practice of village autonomy was not good yet after all. Village Autonomy Policy, therefore, required governance innovation through *electronic government*. This research was aimed to review the implementation of village governance based on *electronic government (e-government)* in village autonomy era. The research used qualitative approach. Data were collected through interview, observation, documentation, and review on preliminary study. The object of research was Village Government in Landungsari Village, Malang Regency, East Java, Indonesia. This review had found that village government was very enthusiastic and responsive to Village Autonomy Policy. In other hand, village government had faced serious problems, among others was that human resource was still marginal in terms of quantity and quality. Village government resolved this problem through a governance innovation by applying *e-government*. It was manifested by a website to be as a structure to support the realization of effective and efficient governance. However, *e-government* was challenged by the absence of human resource to manage *e-government* system. This research was attempting to design *e-government* through website that contained data in relation with the implementation of village governance. Website design was created through a cooperation between village government and university. It was expected that this review would provide a reference needed by village government in designing *e-government* during village autonomous era.

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INTRODUCTION

Village Autonomy Policy, through a validation of Law No.6/2014 about Village, had bestowed a title as autonomous region for any villages in Indonesia. This Law also provided village government with rights and discretions to manage its own potentials. According to Sulismadi, Wahyudi, and Muslimin (2016) based on their research in Landungsari Village, Malang Regency, East Java, it was found that Landungsari Village Government was very enthusiastic and responsive to Law No.6/2014 about Village. Strategic steps had been taken to organize village governance based on Village Act (*UU Desa*). These steps included: planning the development based on the mandate stated in Village Act; preparing RPJMDes and RKPDes based on path and mechanism stated within Village Act; creating better management of village administration order; and conducting

better village financial management pursuant to Village Act. Although village governance was organized well, but in other hand, village government still encountered serious problems in implementing village governance. Some included: the incompetence of human resource in village government, the limited number of village government staffs, and the less understanding of village government staffs to their main tasks and functions. Sulismadi et al. (2016) had discovered that village government was attempting to resolve these problems by applying *e-government* concept to help it to implement village governance. In the beginning, this concept was successful, but in practice, the concept failed to develop due to the lack of professional human resource at information and technology fields and the limited operational budget for the program. It was consistent to the preliminary findings given by few researchers and research agencies, such as Hadi (2012), The Society of Indonesia Governance Science (*MIPI = Masyarakat Ilmu Pemerintahan Indonesia*) (2011), The Center of Review on Local Autonomy Performance (*PPKOD = Pusat Kajian Kinerja Otonomi Daerah*) (2012), and Sulistyarningsih

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(2013). The result of review by PPKOD in 2012 obtained several findings: (1) that not all villages were capable in archiving the documents of planning with only few villages able to prepare RKP Desa (annually) but with many villages failing to have RPJM Desa (five year-term); (2) that the management of village financial and asset was not yet well organized; (3) that the capacity of village government staffs in setting village policy was very low; and (4) that the leadership of village head in controlling village governance was still poor. Problems above were also challenging several village governments in Malang Regency. Review from Hadi and Salahudin (2012) on the capacity of village government of Banjararum Village, Malang Regency, had indicated that: (1) village head was incapable to formulate policies (Village Regulation) as the law umbrella for implementing village development; (2) village secretary was in condition of under capacity in managing village administration tasks, including inputting the data about village assets and controlling the development of the stage; and (3) the innovation and creativity of village government staffs in managing their main tasks and functions were low.

Result of research from The Society of Indonesia Governance Science (MIPI) in Malang Regency found that village government staffs (including Village Head, Village Secretary, and Village Development Bank [BPD]) did not perform well in executing their main tasks and functions. Other result showed (1) that village head and village secretary did having poor communication in managing their tasks and functions; (2) that village head tended to dominate the implementation of village governance; (3) that village secretary did not work on administrative function well; and (4) that BPD failed to perform its function as its tasks and functions as village legislature in proper way. As consistent to MIPI (2012), it seemed that Sulistyaningsih and Salahudin (2012), through their research in Gading Kulon Village, Malang Regency, also collected similar findings. These included: (1) The capacity of village government staffs, represented by Head of Development Affair and Head of Welfare Affair, in managing their tasks was low. The initiative to take care of their main tasks and functions was lacking; and (2) Village Head, Village Secretary and BPD disregarded partnership mode in implementing their main tasks and functions, or if partnership existed, it was run not pursuant to the law. Latest research by Krishno Hadi and Salahudin (2014) about the capacity of village government of Landungsari Village had indicated that Landungsari Village Government confronted few problems in relation with the management of village government. One was about village administrative order. It was then discovered in this research that village government staffs did not have good skills to manage the managerial function of village governance.

From all findings from all researches above, at least, early inference could be taken. Village government did not have feasible capacity in executing the managerial functions of government. These functions included (1) the management of village development planning, (2) the management of village administration, and (3) the management of village government finance. In pursuance of Law No.6/2014 about Village, it was indeed that village government was required to have a capacity to execute three managerial functions above. All these functions would determine whether village government was successful or not in realizing village development in terms of progress and competitiveness. In general, this current research

was trying to construct a map of capacity issues to be resolved by village government and also to explain how village government did resolving the issues for implementing the managerial functions. The mapping of capacity issues and also the explanation were early steps preceding the formulation of a capacity building model representing how village government implemented its managerial functions. This model involved an ultimate concept called as *Electronic Government (e-government)*, meaning that the capacity of village government to implement main tasks and functions would be supported with information technology. Indeed, *Electronic Government* was considered as proper instrument to produce governance-related tasks and functions that were effective, efficient, precise, useful, transparent and equal (Anwar, 2004; Indrajit, 2002; Anwar, Djumiarti, Rihandoyo, 2013; Ramawati, 2012). Sulismadi *et al* (2016) showed that among several designs of capacity building model, one helping village government to implement governance functions in village autonomous era was village governance model based on *e-government*. This model was designed pursuant to Law No.6/2014 about Village and by taking account problems faced by village government, at least to support the development of village with great competitiveness. By the presence of Village Law, village government had autonomy right in implementing village governance matters (those related with planning for development, village administration order, and village financial control). The implementation of village governance must emphasize on principles of *good village governance*, including transparency and participation.

According to Anwar (2004), *e-government* was one of governance concepts that would be useful in producing *good village governance*. Also stated by Sulismadi *et al* (2016), village government did not have yet adequate capacity and *high willingness* to execute *e-government* concept. This weakness was also asserted by some researchers including Coombs (2007), Nurdin, Stockdale and Scheepers (2011), and Winkel (2007). It was implied that village government did not have high willingness to apply *e-government* in implementing village governance matters. The application of *e-government* needed some requirements. Central government must support *e-government* application at all level of government, including Regency and Village. All governments must have adequate capacity to design and operate *e-government*. At least, a visionary government (value-oriented) was also needed to produce *good governance* at all levels and in all governance matters (Anwar, 2004; Chen, Chen, Ching, and Huang, 2007; Ford, 2010; Mark, 2011; Nurdin, Stockdale, and Scheepers, 2011; Yossof, 2011). The objective of the current research was then to review the capacity of village government in implementing village governance matters in village autonomous era. Research was also driven toward designing a village governance model based on *Electronic Government* (Anwar, 2004; Hadi and Yana, 2014; Sulistyaningsih, 2013).

## DISCUSSION

### Models and Goals of Village Autonomy in Indonesia

Realizing the commitment of Indonesia government for decentralization at all government levels, then in 2014, the government of Indonesia had validated Law No.06/2014 about Village. By this Law, village government was given autonomy right to manage its own potentials. Autonomy right was a direct consequence from the application of decentralization

system. Long before Village Act was validated, Ndraha (1991) proposed three paths toward the future of the village. First, the social function of village must be returned. Second, empowerment should be done on various aspects, including political, economical, socio-cultural, and environmental aspects of the village. Third and final was the importance of village to be a training center for democracy. Village was the lowest structure in the hierarchy of power with close direct access to the people. It made the village a quite suitable place to teach democracy at local level. Suwaryo (2012) had designed models representing the future of village governance autonomy. There were six models. Some models could be run in parallel ways, or in combined way, based on the environmental condition where models were applied. These six models were: (1) Custom Village, (2) Administrative Village, (3) Integration between Custom Village and Administrative Village, (4) Dualism between Custom Village and Administrative Village, (5) Sub-District, and (6) Township. Moreover, Suwaryo (2012; 4) said that the most important thing in village autonomy context was that village government not only did recognizing, but also did motivating, developing, and empowering the village. Village government was also required to conduct strict monitoring against corruption, collusion and nepotism, and “any possible mistakes” happening at the village. In this context, Suwaryo (2012) conceded that village autonomy should be a solution for empowerment, welfare, distribution, and justice of villagers. The region of village must be set as the focus of development by any agents, facilitators and accelerators of development. Problems around village development must be understood and then possibly reconstructed based on he needs and livelihoods, at least recalling to the fact that village had resources, including region and human resources, that would also be the base for the livelihood of most Indonesian people.

Law No.6/2014 about Village had defined village as a form of the unity of legal entities with territorial boundaries and also that had been provided with discretion to take care of its own governance affairs where community interest would be recognized based on community initiative, originality right, and/or traditional right which were acknowledged and respected in the governance system of the Unitary State of Indonesia Republic. Subsequently, article 4 in Village Act had put village in the respectful position as explained in this statement: “The arrangement of Village was aimed for (a) to give acknowledgment and recognition to the existing Village with its own diversity before and after the establishment of the Unitary State of Indonesia Republic; (b) to provide clear status and also legal certainty for the Village in the institutional system of Indonesia Republic for giving justice to all Indonesian people; (c) to preserve and also to advance custom, tradition and culture of villagers; (d) to encourage initiative, movement and participation of villagers in developing village potentials and assets for collective welfare; (e) to create the village government that was professional, efficient, effective, open and responsibility; (f) to improve public service for villagers to accelerate the realization of public welfare; (g) to ensure the socio-cultural maturity of villagers which helped them in preserving social coherence as the part of national defense; (h) to promote the economic of villagers to deal with national development gap; and (i) to strengthen the position of villagers as the subject of development.”

Zakaria and Simarmata (2015) had examined issues concerning with social inclusion in Law No.6/2014 about

Village. This Village Act indeed gave attention to several issues. First was the participation of community, especially the marginal group, in managing governance and development affairs, and also in delivering public service. Secondly was the principles of governance, and one of them was the prohibition against discrimination. Third was that the community, including the marginal group, had right to be informed about the implementation of governance and development.

### The Practice of Village Governance in Indonesia

Sulismadi *et al* (2016) pointed out that village government was highly enthusiastic and responsive to Law No.6/2014 about Village. Some strategic steps were taken by village government to organize village governance by keeping pursuant to Village Act. It was aligned with Akang (2015) who inferred that Landungsari Village Government was ready to implement village-related policies, among others was the Program of Village Fund Budget (*ADD = Anggaran Dana Desa*), in consistent with Law No.6/2014 about Village. The factors supporting this implementation were good communication, very supportive posture from village government staffs, and the disposition, willingness, and commitment from relevant stakeholders for the implementation of the Program. Missa, Supro, and Widjaja (2015) had reported that Landungsari Village Government had good capacity in managing communication across organization in executing governance functions. There was good communication between village government and villagers. Despite this capacity, serious problems hampered village government in delivering village services. These problems were the incompetence of human resource in village government, the limited number of village government staffs, and the less understanding of village government staffs to their main tasks and functions (Sulismadi *et al*, 2016). Akang (2015) had discovered factors hampering village governance. Few of them were bad communication across village governance agencies or village government staffs. The bureaucratic structure of Landungsari Village Government was not familiar with the essence of Law No.6/2014 about Village. Kwan, Hardianto, and Setiawan (2013) had found that the quality of governmental performance was not yet optimum, and in general, it was caused by several factors, such as poor quality of human resource among village government staffs, unfeasible financial resources and potentials of village income, and unclear fund allocation to village government from supra-village government. In relation with planning for village government, Wulansari (2015) had shown that the less optimum coordination across government agencies in development planning process, the lack of openness in public space, the unclear access to information, the dominance of village government as the authority holder in policy making, the perceptions and commitments of village government that were not conducive to community empowerment, and also the perceptions and commitments of villagers that were not supportive to village development, and the lacking of information about village program. For the aspect of accountability to the village financial management, Setyoko (2013; 22) had revealed a fact that “Village Government was failed to implement a system and mechanism of financial reporting that was properly set in detail by Regency Government”. This failure was caused by some factors. One was that village government staffs had poor administrative capacity. There was no strict sanction from Regency Government when financial administration, including in case

of ADD, was not set in order. Villagers did not seemingly care with the accountability to ADD financial administration. Villagers with paternalistic culture were mostly convinced with any things shown by the elites of the village.

Based on practical matters shown by the findings above, it was then inferred that for realizing *good village governance*, it not only needed normative system and mechanism, but also required systemic innovation because the innovation was the supplementary element to the existing effort in producing effective and efficient governance. Indeed, *e-government* was one such innovation in the governance system that was meaningful in creating accountable and competitive governance (Ching, Ching, and Cheng, 2007; Dewandaru, 2013; Streib and Willoughby, 2005; Holle, 2011; Wiratmaja, 2006; Aprilia, Wijaya, and Suryadi, 2014; Abbas, Kom, and Panji Novantara, 2016; Edmiston, 2003).

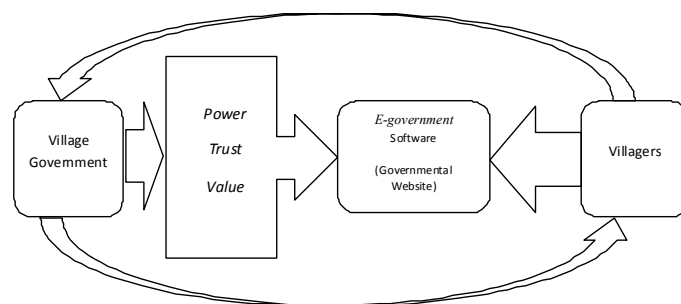
### **E-government framework for village governance implementation**

Problems in village governance implementation were representing a process to bring village governance institutions toward their maturity. Sayuti, Hamidi, and Dahlan (2015) had signified this process as the dynamic because it was a part of opportunities and threats that must be perceived as a positive. For them, Law No.6/2014 about Village was facing huge threats. Surely, village government was overshadowed by corruption but it was expected at the same time, that village government would deliver effective governance based on the existing public service framework. In this context, according to Sayuti *et al* (2015), a monitoring system was needed to support the establishment of *good village governance*. Some steps must be taken to establish this *good village governance*. Definitely, monitoring system against village government must be empowered by reconstructing the existing monitoring system to facilitate the formulation of strategies or its derivative concepts in the future. This current research was the effort of academicians to support village government in producing *good village governance* and to establish village development with competitiveness based on vision and mission of Law No.6/2014 about Village. The concept used in this research was to design the model of village governance based on *electronic government*. It was believed that this concept would be helpful in producing village governance that was effective, efficient and transparent. Verton (2000) defined *Electronic Government* as a relationship between a government and other government (*Government to Government*) and also between the government and people (*Government to Citizen*) which was facilitated by online-based communication and interaction. As also said by Verton, *Electronic Government* could be utilized to produce the effective and efficient governance. Meanwhile, Ching, Ching, and Cheng (2007) defined *Electronic Government* by describing it as following: “*The concept of creating more efficient and convenient interaction between government and the interacting parties using Internet technology is referred to as electronic government (or digital government).*” According to Ching *et al*, *e-government* concept was one supporting the effort to create more effective and convenient governance to the favor of the government in building communication and delivering public service to the citizen. Also said by Ching *et al* (2007), *e-government* gave positive impact on building and establishing good public service. It was said that “*electronic government offers a potential to dramatically increase access*

*to information and services and makes it easier for citizens to participate in and contribute to governmental issues.*”

The most important topic in the discussion of *e-government* context was the factors supporting *Electronic Government*. Yossof, Abas, and Islam (2011) declared that important factors behind *e-government* were ‘power’, ‘trust’ and ‘value’. *Power* was related with the willingness of the government to make policies supporting *e-government*. *Trust* concerned with the similarity of vision and conviction between government agencies and citizen in applying *e-government* as the structure for managing governmental issues. *Value* was connected with good understanding between government and citizen about benefit of *e-government*.

Yossof *et al* (2011) said that, “*All dimensions have a positive relationship with the level of e-procurement adoption amongst SME in Malaysia. All dimensions, namely; the power of supplier, power of procurement, trust on supplier, trust on information technology, value of implementation system efficiency, and value of cost efficiency, were also correlated with the level of e-procurement adoption amongst SME.*”



**Figure 1. E-government Framework in the Context of Village Governance Implementation**

The factors above, respectively Power, Trust and Value, were not easy grown in short. All of them represented behavior and culture of government and citizen. Dewandaru (2013; 238) suggested that the application of e-office at governmental offices was not easy. Technical factor was problematic, but the most prominent issue was work culture. Changing the work culture of civil servants (PNS = *Pegawai Negeri Sipil*) from manual to electronic system always needed adaptation. Relevant to this matter, Nurdin, Stockdale, and Scheepers (2011) explained, “*The organizational barriers or hitches are identified in major e-government link to the dimensions of organizational culture and effectiveness.*” Important steps should be taken. It involved building the culture and awareness of government and citizen about the importance of *e-government*. The general objective of this research was to build up the awareness among government and villagers to establish *good village governance* based on *electronic government*.

### **The Capacity of Village Government and the Threat against E-Government Implementation**

In village autonomy era, Law No.6/2014 about Village had provided village government with greater rights and discretions than in previous period (before the validation of Village Act). Village government perceived this Village Act as the chance to develop the village to gain more prosperities and wealths. Therefore, Landungsari Village Government expected that the Act would be helpful to set development planning and

to establish the orderly village administration. However, Landungsari Village Government was lacking of feasible competence to achieve the vision of Village Act. Human resource in Landungsari Village, in terms of quantity and quality, was not supportive to the implementation of village governance pursuant to the vision of Village Act. The impact of this issue was poor village governance, especially in relation with village financial management (Sulismadi dkk, 2016; Akang, 2015; Kwan, Hardianto, and Setiawan, 2013; Wulansari, 2015). Although such weakness above was prominent, village government was considered as failed to fulfill the mandates stated in Village Act. As informed by Darwis, the Head of Village Government Affair for Malang Regency Government, the incompetence of village government to use its discretions could not be considered as failure. Darwis assumed that the failure of Village Act implementation was caused by central government. Before Village Act was implemented, central government did not review the capacity of village government to implement the mandates of the Act. Darwis, as the Head of Village Government Affair for Malang Regency Government, asserted that, "Village government was not ready to implement Village Act. Central government expected that Law No.6/2014 about Village could be implemented by 2015. The unpreparedness of village government to implement Village Act could be seen from the confusion occurring during the implementation. Village government did not have technical clues or necessary manuals to use all discretions given by Village Act. In the middle of 2015, no single village government in Malang Regency had submitted APBDEs Draft to Malang Regency Government. The reason was that many village governments did not understand how to prepare APBDEs as required by the mandates within Village Act." Darwis presumed that central government did not have adequate knowledge about village government's capacity to implement Village Act. From 2015 onward, village government was still subjected with the confusing technical issues. Darwis added, "the Local Government of Malang Regency perceived that central government was not familiar with the problems in village government. Village Act was too much regulating technical matters of how to solve problems faced by village government. Regarding to the management of village assets, for instance, Village Act did not regulate what kind of village assets under the right of village to manage. If anythings in the village were the assets of the village, then what assets should be owned by the village and be put under the management of the village?"

Although the local government of Malang Regency considered Village Act implementation as failed, Village Act was not becoming unnecessary. As declared by Darwis, "Village Act was indeed needed for better village development. The emphasis must be given on good coordination and communication between central government, local government, and village. The Act also encouraged village government to produce innovation in village governance." Darwis also explained, "Until today, the local government of Malang Regency has attempted direct coordination with the Ministry of Internal Affair. The goal of this coordination was to obtain clear information about technical clues and manuals of village governance. Malang Regency Government should not be wrong in making decision for village government. Lately, Malang Regency Government had been diligent enough to socialize the issues and to dialog directly with village government. Besides, village government must do innovations in implementing village governance, including

using the information technology as the structure supporting the delivery of public service". Based on the explanation about problems around village governance, the existence of Village Act was needed by village government to produce better village development. Steps must be taken by village government to produce *good village governance*, and one of them was innovating the governance order through information technology. The government based on information technology (*e-government*) was meant as conducting a governance through information technology (through internet network) (Streib and Willoughby, 2005). Dewandaru (2013) insisted that the utilization of *e-government* was a part of a system of information technology to simplify the business process, including the administration of correspondence through the utilization of internet and electronic mail. The goal of *e-government* application into the realm of village government was to help the village government to resolve problems around village governance, especially in relation with the planning of village development and the management of village finance.

Landungsari Village Government had assessed that, in village autonomy era, and recalling to the limitation of human resource in village government, the application of *e-government* was one correct answer to problems. Muffarin, as the Head of General Affair for Landungsari Village Government, said, "Village Autonomy Era should apply computer-based governance system, through which public service was accessible from wherever places. The only requirement was the availability of relevant structures and infrastructures." As explained by Muffarin, the application of *e-government* always needed feasible structures and infrastructures. *E-government* needed three important elements to exist, and these were governmental support, human resource capacity, and mutual understanding between government and citizen about the goal and function of *e-government*. All these elements were the success keys for implementing village governance based on information technology (*e-government*). As shown by the results of review and also research from Harvard JFK School of Government, there were three important elements to be seriously attended in the application of *electronic government*, respectively: *Support* (the support from government), *Capacity* (the capacity of governmental human resource), and *Value* (the benefit of *e-government*). Landungsari Village Government had showed commitment (*Support*) to back up *e-government* for implementing village governance issues (planning the village development, creating better village administration order, and conducting better village financial management). This commitment was shown in the vision and mission of village government to develop Landungsari Village. The vision of Landungsari Village Government was: "Establishing Good and Clean Village Governance to Create Landungsari Village with Justice, Prosperity and Welfare". Vision above described the presence of *goodwill* from village government to create *good village governance (government)*. It could be made actual through several policies reflecting the principles of *good governance*, among others was transparency and participation. One structure to apply the principle of transparency and participation was information technology (*e-government*). Commitment was formulated and then manifested through the mission of Landungsari Village Government. There were some missions, such as: (1) to revitalize bureaucracy in the village government staffs to improve the quality of service given to citizen, (2) to produce governance that was clean and free from corruption and any mischieves; (3) to increase people

economic by opening vacancies for village genuine potentials; and (4) to improve quality of people welfare to achieve better and feasible living standard.

Mission 1 and 2 could be realized through *e-government* concept. Bureaucratic revitalization to produce better public service was facilitated through information technology. Village government must provide *homebase* for this technology, and it was official website to help citizen to interact with government, and also to improve public service quality. *E-government* was also helpful to produce a clean government that was free from corruption and any other misdeeds. Since 2013, Landungsari Village Government created its own website as a structure for *e-government*. This website contained various contents, including a collection of village regulations, village development programs, and administrative service procedures. Administration service was related with family card, domicile document, and birth certificate. From the result of review, the authors had found that Landungsari Village Government was the only government in Malang Regency that used website as the structure in delivering public service. This website helped village government to execute public service functions. Landungsari Village citizens who needed for data and information would be served only through official website of Landungsari Village Government. Citizens only opened village website to search for the data. Website was also helpful when village government attempted to socialize important information about village government to the citizens, and to follow it with necessary publication. In 2014, this website gave great utility for village governance. Landungsari Village citizens used this website to make acknowledgment with procedures and requirements of public service. Mesri, a citizen in Landungsari Village, and also the member of LPMD managing board, said that, "The website of Landungsari Village Government gave great contribution to citizens. Many information could be accessed from this website. This website must be advanced into ultimate technology by expecting that the benefit would cover any citizens who needed service from village government". Mesri's explanation indicated the fact that website was needed to facilitate public service delivery. However, it was not functional anymore, and also hardly developed into ultimate technology as expected by citizens, including Mesri. Siswono had reported, "The website was not functional anymore as it was in 2013 and 2014. Village government lacked of funding to advance this website. Besides, village government did not have professional human resource who could manage the website".



Source: Personal Documentation, 2016.

Figure 2. Official Website of Landungsari Village Government

The limitation of fund and human resource was a factor constraining village governance in delivering public service

based on *e-government*. Based on the observation in the field, this problem could be resolved through a cooperation between college and village government by maximizing village fund as website operational cost. During the collection of data through FGD, the research team offered village government a help to develop better *e-government* by creating cooperation between village and university in order to maximize village fund. This offer was accepted by Landungsari Village Government. Through FGD, then research team and village government had agreed on the cooperation between Landungsari Village Government and University of Muhammadiyah Malang (UMM), and also settled on the website development program that would be funded from the 2017 APBDes. The funding was allocated through Village Fund Budget (ADD) and it was also supported by research team budget that was run-out directly after one-use only. The agreement derived from FGD was then used as the base for policy-making in relation with *e-government* development at Landungsari Village Government. Research team and Landungsari Village Government had designed more attractive website than before. This new website would be connected to any governing units in Malang Regency, and also had a linkage with central government for village government affair. As informed by Landungsari Village Government, the follow-up that was needed for the development of *e-government* concept in Landungsari Village was by training the village government staffs to produce real understanding about electronic-based public service, and also by socializing village government and citizen about how to use internet. Based on the identification and the mapping of research problems, the authors could design the model of *e-government* based village governance. It was described as following:

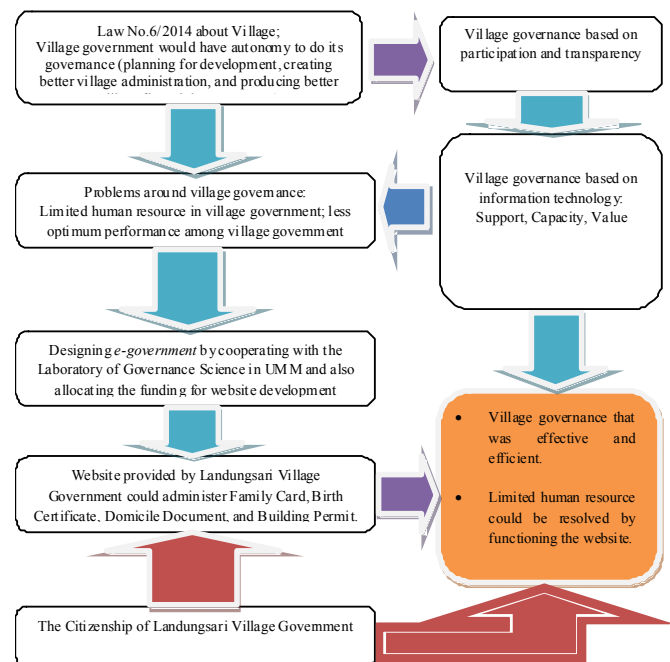


Figure 3. E-government based Village Governance

Model above was aimed to describe the village governance that was effective, efficient, transparent and participative as required by Village Act. The important point of this model was the application of *e-government* as the structure for village government to implement tasks and to use discretions through electronical devices, and also as the structure for village government to interact indirectly with citizens during the

delivery of public service. Related to the benefit of *e-government* for village governance, Holle (2011; 28) stressed that “e-services had direct benefits, such as: (a) improving the efficiency and effectiveness of governmental works; (b) delivering the service to the community in faster way; (c) Providing more complete and accurate information in faster way at more efficient cost with better data management and information seeking; (d) supporting the creation of *good village governance*; (e) increasing the attractiveness of the village for investor and business world; (f) speeding the reporting process when it was needed by policy-makers; (g) improving the interaction of village with business world; (h) empowering citizens through distribution and transparency in making decision; and (i) making available the up-to-date database of regency/town.

### The Design of *E-government* for Village Governance Implementation

The provision of Village Autonomy Policy through Village Act was one chance for village government to develop the village with competitiveness in any aspects. The chance was positively responded by any village governments in Indonesia, including Landungsari Village Government. Indeed, Landungsari Village Government took several strategic steps to develop the village. Unfortunately, the effort was not optimum because human resource in village government was limited in terms of quantity and quality. Based on result of review from the authors, the limitation of village government in village governance implementation could be resolved with *e-government* concept, where village governance was performed through internet-based information technology system. This result aligned with the result of review by Dewandaru (2013). Dewandaru (2013; 238) showed that: “being part of *e-government*, the utilization of e-office application was quite helpful to accelerate the business of office building. E-office gave some implications, such as: (a) providing faster document transfer across units in the office; (b) minimizing the utilization of office utensils; (c) reducing the demand of workers to distribute office documents; and (d) contributing to decision-making by leaders. Wiratmaja (2006) also reviewed the use of website portal as the structure for village governance. In this review, Wiratmaja (2006;1) found that “the development of *e-government* portal was a unity of works, comprising of developing the concept, providing the supporting structure, understanding governance-related processes, and constructing the integrated architecture for information search and public service, based on the goal to produce transparent and accountable village governance”. In this case, the implementation of system indicated that making a development model from various open-source applications would produce ideal results if the framework of the model was understood. Many processes in relation with transferring various information and sources of governance services could also be performed well. Research by Aprilia, Wijaya, and Suryadi (2014; 135) about website effectiveness in Jombang Regency Government had shown that the website of Jombang Regency Government had been an effective medium for delivering information, but being a medium for electronic service (e-service), the website was not yet effective. The supporting factor for this website was that the advance of information technology gave the citizens easier and free access to internet. The access was given regardless the education background of the users, and the low-educated users might find internet as meaningful to learn things for better education

level. Abbas, Kom, and Panji Novantara (2016), in their research of Lamongan Regency, had discovered that *e-government* program, through its website and blog, had improved the positive image of Lamongan Regency Government. *E-government* implementation strategy through website and blog had been set on with good planning, which then provided Lamongan Regency Government with positive result, respectively the improvement of its positive image. Based on data from the interview, it was shown that similar *e-government* implementation strategy was also used by KPDE and Public Relation.

Landungsari Village Government took some measures to apply *e-government*. One of them was creating a blog of information about village government. However, this blog was not supportive to village governance implementation in effective and efficient ways. Research team attempted to design a more supportive website that would produce village governance that was effective, efficient, transparent and participative pursuant to regulation. According to Sosiawan (2016; 120), the making of local government website was first stage in developing *e-government* in Indonesia, and the target was to provide all Indonesian people with easy access to information and service of local government, and to allow them participating into developing democracy in Indonesia using internet facilities. Website design, indeed, must reflect the goal of *e-government* as explained by Edmiston (2003). As said by Edmiston (2003), *e-government* had big potentials that supported efficient, transparent and participative village governance. Research team was designing a website for Landungsari Village Government, and this website had contents with direct relevance to managerial functions of village governance. These contents included village development, development planning, village financial management, village government accountability, and many kinds of public service. According to Dewandaru (2013), before making the *e-government* application, the early step was to design e-office system. It involved several stages, such as: (a) analyzing the needs of users; (b) analyzing the minimum requirement of the system; (c) arranging database concept; and (d) making application architecture.

As reported by Sosiawan (2016; 120), based on the nature of information transaction and public service provided by local government through information network, then the development of *e-government* was done four stages.

#### Stage 1 – Preparation

- The making of website as the medium for information and communication for each agency.
- The socialization of website for internals and also for public.

#### Stage 2 – Realization

- The making of interactive website for public who needed information.
- The making of interface linkage with other agency.

#### Stage 3 – Optimization

- The making of transactional website for the delivery of public service.

- The increase of inter-operability for applications and data with other agency.

#### Stage 4 – Utilization

- The making of applications for public service delivery in natures of Government to Government (G2G), Government to Business (G2B), and Government to Consumer (G2C).

Sosiawan (2016) explained that *e-government* in New Zealand also had four stages. First stage was website presence. In this stage, base information needed by citizen was presented in governmental website. Second stage was interaction. This stage showed variance of information, including download facilities and email communication in governmental website. Third stage was transaction. The application and form for transaction had been provided for citizen to produce online transaction. Referring to the explanation above, the design of website contents in Landungsari Village Government was described in the following table.

**Table 1. The Design of Website Contents in Landungsari Village Government**

Menu	Contents
Village Profile	1. History of Village 2. Village Boundary 3. Population Rate 4. Village Community Agency 5. Village Government Structure
Village Development and Budget	1. Village Development Activity Plan (RPJMDes) 2. Village Government Activity Plan (RKPDes) 3. Village Budget 4. Village Fund Budget
Public Service	1. The Administration of Family Card 2. The Administration of Birth Certificate 3. The Administration of Domicile Document 4. The Administration of Death Recognition Document
Dialog and Aspiration Accountability Report	The Proposal for Activity Program per Sub-Village Region 1. The Report of the Implementation of Village Development Program 2. The Report of APBDes Realization in Quarter and Annual Terms 3. The Report of Village Fund Usage
Legal Product (Policy)	1. Village Regulation 2. The Regulation of Village Head 3. The Decree of Village Head
Contact	1. Village Office Address 2. Email Address
Link	1. Website of Malang Regency Government 2. Website of the Ministry of Internal Affair 3. Website of the Ministry of Remote Village 4. The Information System of Village Government (Simdes)

The design of website above was driven to support the implementation of village governance based on principles such as: legal certainty, governance order, general interest order, openness, proportionality, professionalism, accountability, effectiveness and efficiency, local wisdom, diversity, and participation (Law No.6/2014 about Village, Article 24). The implementation of *e-government* was faced by various challenges. Setiawati and Mudi (2013) had researched the City of Tegal, and found problems and challenges. One of them was the absence of sharing culture. This culture was about sharing information and facilitation the entry to Indonesia. The culture of documentation was giving unusual challenge, and it was worsened by the scarcity of reliable human resource, the unfeasible expensive infrastructures, and the limited access to the place. Despite these problems and challenges, in globalization and democratization era, it was the obligation of the government to implement *e-government*. Therefore, the government must resolve problems and challenges to ensure

that *e-government* was well and properly implemented. Sosiawan (2015) had discussed steps to resolve problems and challenges around *e-government* application. These steps included (Sosiawan, 2015; 107):

1. Human resource problems could be resolved by providing education-training for human resource about the integration of information and communication technologies. Pragmatically, this training was done in-house at the level of service provider in local government, and it allowed local government staffs to have comprehensive understanding and literacy. In-house training could invite experts in certain locality or others, and involve the cooperation with the college.
2. In relation with the limited structures and infrastructures, the solution was that the government could set policies to embrace the privates, especially ITC provider, in form of mutual integration and cooperation that benefited both sides. For instance, MoU that was made between the government and Microsoft had resulted in significant policy. Many

governments in Indonesia had used “unofficial” version of Microsoft application software, and this usage would be “whitened”. This agreement was a breakthrough to deal with expensive infrastructures.

3. The less distribution of community literacy in using e-gov could be solved with socialization strategy to citizens.

As elaborated above, *e-government* was one correct solution to create effective and efficient village governance that was consistent with regulation. *E-government* design was oriented toward creating website-based governance system. Website contents were directly related to the affairs of village government, including village profile, village development, village financial policy, public service, and legal product of village government. In this context, citizens could access the data without being limited by time and space. In other hand, however, *e-government* concept was confronted with problems



and challenges, including the limitation of human resource and structures/infrastructures. Through a vision of open government, then problems and challenges could be resolved through a cooperation with relevant parties, including university (Sulismadi *et al*, 2016).

### Conclusion and Suggestion

Village autonomy provided by Law No.6/2014 about Village had positioned the village as an autonomous region. This autonomy had given village government wider rights and discretions to conduct village governance in a self-dependent way. However, the results of some researches showed that many village governments were not ready to implement village autonomy. Village government felt an optimism that village autonomy could be manifested better through governmental innovations, among others was the application of *e-government*. As shown by the result of review, village government had good vision, and this was to apply *e-government* as a part of the effort to produce effective and efficient village government. The design of *e-government* was manifested through a website, and it was used as a structure for transferring governance-related data and information to villagers. Website also provided village government staffs with data and information about governance when these were needed to implement their main tasks and functions. In other hand, villagers were easier in accessing public service or in monitoring village development. *E-government* helped village government to create effective and efficient village government that matched with the goal of village autonomy (Edmiston, 2003; Dewandaru, 2013; Sosiawan, 2016). However, *e-government* application encountered with problems and challenges, among others was the limitation of human resource and of structures and infrastructures in village government. These problems and challenges would be resolved through good cooperation between village government and all relevant parties (Setiawati and Mudi, 2013; Sosiawan, 2015). In this context, *e-government* application would need commitment that was shown through *power* (policy), *trust* (faith) and *value* (vision-mission) (Yossof, Abas, and Islam, 2011; Sosiawan, 2015). Finally, it could be said that the review implied that village autonomy would always need governmental innovation, and this could be done through *e-government*. In other hand, *e-government* needed strong commitment from all relevant parties/stakeholders, including the government. It was expected that the government would design *e-government* in proper way as a structure to support the goal of village autonomy. But, it was also admitted that the review had a limitation, concerning with the context of methodology for designing *e-government*. It was suggested that further review would explore the proper and comprehensive methodology.

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