



Optimization Of Digital Villages In Public Services In The Era Of Technological Disruption Case Study Of Bergas Village, Semarang District, Central Java Province

Adhi Susano

Universitas Indraprasta PGRI Jakarta

Email : adhi.susano@gmail.com

Abstract *The availability of information and easy access to information related to the village can provide opportunities for outsiders to get to know Bergas village, thus opening up opportunities for creating collaboration between the village and outside parties. One effort that can be made to provide access to information about villages is by digitalizing villages. Village digitalization is a priority program for the Ministry of Villages in 2021. Village digitalization can help prepare a database that is useful for planning, implementing, monitoring, and evaluating village development. Digitalization of villages in the era of disruption also supports the development of superior village potential through data collection and e-commerce, acceleration of village public services to the community, and financial transparency and village development activities. With village digitalization, it is hoped that it can raise the local potential of villages, especially the potential for tourism, MSMEs, and superior products, as well as the local food potential of Bergas village. This type of research is descriptive research. The approach used is a qualitative approach and a conceptual approach. The data source used is secondary data. Data analysis was carried out descriptively and qualitatively. Concluding is carried out using a deductive method from general to specific, especially those related to the research topic, namely Optimizing Digital Villages in Public Services in the Era of Technological Disruption. Case Study of Bergas Village, Semarang Regency, Central Java Province. This research produced findings. Creating a digital village itself has several conditions that must be met. Digital villages require the availability of adequate information and communication networks, whereas digital villages must have good communication networks because this is a factor that is used to use online-based systems. Second, to create a digital village, quite large funding is needed. Currently, digital villages are the result of collaboration between regional governments and the central government through the Communications and Information Telecommunication and Information Accessibility Agency (BAKTI) and other parties. Third, the availability of human resources (HR) who manage various online information technology-based services. The implementation of a digital village has a broad nature and concerns the interests of society, so it must be implemented in an integrated and directed manner by the government, business entities, and the community. The community has a very large role in implementing the undertaking of digital villages to realize equal distribution of welfare with the support of providing telecommunications and information infrastructure in the form of public services.*

Keywords: *Digital Village Optimization, Public Services, Era of Technological Disruption*

Abstrak *Ketersediaan informasi dan kemudahan akses terhadap informasi terkait desa dapat memberikan peluang bagi pihak luar untuk mengenal desa Bergas, sehingga membuka peluang terciptanya kerjasama antara desa dengan pihak luar. Salah satu upaya yang dapat dilakukan untuk memberikan akses informasi tentang desa adalah dengan melakukan digitalisasi desa. Digitalisasi desa merupakan program prioritas Kementerian Desa pada tahun 2021. Digitalisasi desa dapat membantu menyiapkan database yang berguna untuk perencanaan, pelaksanaan, pemantauan dan evaluasi pembangunan desa. Digitalisasi desa di era disrupsi juga mendukung pengembangan potensi unggulan desa melalui pendataan dan e-commerce, percepatan pelayanan publik desa kepada masyarakat, serta transparansi keuangan dan kegiatan pembangunan desa. Dengan digitalisasi desa diharapkan dapat mengangkat potensi lokal desa, khususnya potensi pariwisata, UMKM, dan produk unggulan, serta potensi pangan lokal desa Bergas. Jenis penelitian ini adalah penelitian deskriptif. Pendekatan yang digunakan adalah pendekatan kualitatif dan pendekatan konseptual. Sumber data yang digunakan adalah data sekunder. Analisis data dilakukan secara deskriptif dan kualitatif. Kesimpulan diambil dengan menggunakan metode deduktif dari umum ke khusus khususnya yang berkaitan dengan topik penelitian yaitu Optimalisasi Desa Digital dalam Pelayanan Publik di Era Disrupsi Teknologi. Studi Kasus Desa Bergas Kabupaten Semarang Provinsi Jawa Tengah. Penelitian ini menghasilkan temuan. Membuat desa digital sendiri memiliki beberapa syarat yang harus dipenuhi. Desa digital memerlukan ketersediaan jaringan informasi dan komunikasi yang memadai, sedangkan desa digital harus memiliki jaringan komunikasi yang baik karena hal ini menjadi faktor yang digunakan dalam menggunakan sistem berbasis online. Kedua, untuk mewujudkan desa digital diperlukan pendanaan yang cukup besar. Saat ini desa digital merupakan hasil kolaborasi pemerintah daerah dan pemerintah pusat melalui Badan Aksesibilitas Telekomunikasi dan Informasi (BAKTI) Komunikasi dan Informatika dan pihak lain. Ketiga, ketersediaan sumber daya manusia (SDM) yang mengelola berbagai layanan berbasis teknologi informasi online. Penyelenggaraan*

Received: Oktober 29, 2023; Accepted: Desember 13, 2023; Published: Desember 31, 2024

* Adhi Susano, adhi.susano@gmail.com

desa digital mempunyai sifat yang luas dan memperhatikan kepentingan masyarakat, sehingga harus dilaksanakan secara terpadu dan terarah oleh pemerintah, badan usaha, dan masyarakat. Peran masyarakat sangat besar dalam penerapan bisnis desa digital untuk mewujudkan pemerataan kesejahteraan dengan dukungan penyediaan infrastruktur telekomunikasi dan informasi berupa layanan publik.

Kata Kunci: Optimalisasi Desa Digital, Pelayanan Publik, Era Disrupsi Teknologi

BACKGROUND

Good and innovative public services can also have a good impact on society, where society will further develop along with current technological developments. Public services in the digital era are more about internet-based technology so that the services provided will be faster and more efficient. Public services based on digital technology can be understood as an effort by the government to provide more efficient and effective public services by utilizing information and communication technology to achieve the expected goals. Digital village itself is a program concept that implements a system of government services, community services, and community empowerment that is based on the use of information technology[1].

The implementation of a digital village has a broad nature and concerns the interests of society as a whole, so it must be implemented in an integrated and directed manner by the government, business entities, and the community. The community has an immense role in implementing the undertaking of digital villages to realize equal distribution of welfare with the support of providing telecommunications and information infrastructure in the form of public services. Realizing a digital village requires collaboration with various parties, starting in terms of funding, mentoring, digital literacy, and the community, the use of village budgets is also starting to be directed towards the application of digital technology. Tourism digitalization provides various tourism services to tourists with easy access in the context of organizing marketing. Tourism digitalization is considered to make it easier for tourists to access information about a tourism destination and can reduce costs for both organizers and/or managers, as well as for tourists.[2].

Bergas Village, in implementing the digital village policy, adopted the Central Java regional government program, namely smart village, so that all applicable regulations use the rules in the smart village program based on the 1945 Constitution, as written in the smart village master plan that the Law The 1945 Constitution was used to formulate binding policies to support the development of information technology-based village ecosystems to create a sustainable village economy. Through the smart village program, the Bergas Village government has created an inspiration to build a digital village that aims to improve the welfare of village communities and their quality of life. The village website is one of the digital

technology products in rural areas as a complex interaction between the various systems within it. This village website-based public service is used to access information and is utilized by all people in Bergas Village[3].

Digital villages are a new urban development and management strategy. Villages currently rarely use online media to exchange information. When people need information, they must first come to the village office to request the necessary information and to village members to convey it. The Digital Village Program aims to provide internet access in villages that previously had no internet connection at all. Conceptually, digital villages are a program to make villages into development areas that empower communities with adequate information technology facilities. In the government context, the massive application of technology began with Presidential Instruction Number 3 of 2003 concerning the implementation of electronic government. With quality and competitive village development, the quality of information, systems, and services has a positive effect on user satisfaction. User satisfaction and results (organizational goals) are one of the main goals that must be achieved by the government in providing services to the community[4]. Executing e-government in Village Government can be a major intervention in pushing villages toward progress

The implementation of regional government in the perspective of regional autonomy is the legitimacy and mandate of the community through the regional autonomy law, which contains the intention of strengthening national integrity as a diverse country but still one in sovereignty to fight for the rights of its people, for the sake of development, governance and a unified society as a whole. sustainable. The main objective of regional autonomy policy is to create community welfare through the provision of satisfactory public services (public services, development for economic growth, and public protection) through the institutional role of regional government[5]. In this regard, local government institutions are vital in achieving these goals. For this reason, regional governments must be strengthened so that they continue to have adequate capacity to realize the goals and essence of implementing regional autonomy.

The use of information technology (E-Government) in government governance is an obligation that must be carried out by the government to accelerate interaction between the government and the community so that public services can be provided quickly. Efforts to utilize information technology in village government can be carried out by the village government, namely making villages become digital villages. This is in line with the concept of smart villages which emerged based on the adoption of information technology to integrate village potential and institutional systems, to produce advantages for rural communities. Through the digital village concept, it is hoped that we can create smart villages that utilize

technology as a catalyst for development, education, local business opportunities, improvement, and welfare of all rural residents.

Implementing rural development in this digital era requires a convergent communication system involving interpersonal communication, mass media, and hybrid media (another term for the internet). The aim is for many parties from various generations to be involved and participate to accelerate development goals. Because the development process cannot ignore the involvement of various elements of society. Development communication is a scientific discipline and practical communication in the context of developing countries, especially communication for planned social change. Development communication is intended to consciously promote human development. That means communication that will eliminate poverty, unemployment, and injustice.

The availability of information and easy access to information related to the village can provide opportunities for outsiders to get to know Bergas village, thus opening up opportunities for creating collaboration between the village and outside parties. One effort that can be made to provide access to information about villages is by digitalizing villages. Village digitalization is a priority program for the Ministry of Villages in 2021. Village digitalization can help prepare a database that is useful for planning, implementing, monitoring, and estimating village development [5]. Digitalization of villages in the era of disruption also supports the development of superior village potential through data collection and e-commerce, acceleration of village public services to the community, and financial transparency and village development activities. With village digitalization, it is hoped that it can raise the local potential of villages, especially the potential for tourism, MSMEs, and superior products, as well as the local food potential of Bergas village.

METHODOLOGY

This type of research is descriptive research. The approach used is a qualitative approach and a conceptual approach. The data source used is secondary data. Data analysis was carried out descriptively and qualitatively[6]. Concluding is carried out using a deductive method from broad to detailed, especially those related to the research topic, namely Optimizing Digital Villages in Public Services in the Era of Technological Disruption. Case Study of Bergas Village, Semarang Regency, Central Java Province. Qualitative data analysis is conducted if the empirical data obtained is in a collection of words and not a series of numbers and cannot be arranged into categories. Data can be collected in various ways

(interview observations, document instances, and recording tapes)[7]. It is processed first before being used in qualitative research, including the results of interview transcripts, data reduction, analysis, data interpretation, and triangulation.

RESULT AND DISCUSSION

Types of Optimizing Digital Villages in Public Services in the Era of Technological Disruption Case Study of Bergas Village, Semarang Regency, Central Java Province

The topographical profile of Bergas Village is a slope or peak area with a height of 511 meters, which is located on the tourist route to the Bandungan Nature Tourism Center, which is a very famous tourist destination in the Central Java area. It makes Bergas Village have enormous potential to be developed into a new tourist destination. As for population administration, Bergas Village consists of 7,320 people (density level of 1,911.23 people per square km) with details of 3,925 being male and 3,696 being female. The 7,320 people are divided into 7 RWs (Rukun Warga) and 42 RTs (Rukun Tetangga) spread across 6 hamlets, namely Krajan Hamlet, Kemloko Hamlet, Srumbung Hamlet, Sruwen Hamlet, Kebunkliwon Hamlet, and Kenangkan Hamlet. The area of Bergas Kidul Village is 382.98 Ha, consisting of 188.96 Ha of Paddy Fields (105.67 Ha of Irrigated Rice Fields and 83.28 Ha of Rainfed Rice Fields), 98.92 Ha of Non-Paddy Rice Fields (67.94 Ha of Tegal/Garden, 5.91 Ha of Plantations, 24.93 Ha of Community Forests, 0.14 Ha of Ponds/Reservoirs), and 95.11 Ha of Non-Agricultural Land (81.55 Ha of Houses and Buildings and 13.56 Ha of Others). The large amount of rice fields and plantations has enormous potential to support the development of the agrotourism sector.

Village Development in Indonesia aims to improve the welfare and quality of life of village communities through fulfilling basic needs, developing village infrastructure, developing local economic potential, and sustainable use of natural resources as stated in Law No. 6 of 2014 concerning Villages. In this regard, the West Java Government is organizing a Digital Village program, namely a program for providing Internet and Community Digital Literacy. The Digital Village Program aims to provide internet access in villages that previously had no internet connection at all. Conceptually, digital villages are a program to make villages into development areas that empower communities with adequate information technology facilities [8].

Resources in the village, even though the contents of the policy have been communicated clearly and consistently if the implementor lacks the resources to implement the policy, then implementation will not be effective. Resources are one of the factors that

influence the success of a policy implementation. Resources that can support policy implementation can be tangible, such as Human Resources (HR). Human resources are one of the variables that influence the success and failure of an undertaking. Human resources can be seen from the competence or knowledge of implementers in implementing policies. Edward also noted the resources needed for implementation. Firstly, staff, staff whose numbers and abilities are appropriate to needs. Second, information, namely how to implement policies and data related to the policies to be implemented. Third, the authority required by the implementer varies greatly depending on the policy that must be implemented. Authority can take the form of bringing cases to court, providing goods and services, authority to obtain and using funds, authority to request cooperation with other government agencies. Fourth, physical facilities are important for the successful implementation of policies by implementers. Physical facilities include supporting facilities and infrastructure needed to expedite the policy communication process [5].

The use of digital marketing applications in tourism digitalization efforts that have been used in case studies include websites, social media, web forums, online advertising, and mobile applications. The use of digital marketing in the current era in the world of tourism has changed the paradigm of industry, work, ways of communicating, shopping, transactions, and even lifestyle. In developing tourist villages through digitalization of tourism, it has been proven that many benefits are obtained, such as the ease of providing various tourism services to tourists, including access to organizing marketing, digitalization of tourism is considered to make it easier for tourists to access information about a tourism destination and of course can reduce costs for both organizers and/managers, as well as for tourists, and so forth[9].

The existence of regional governments with all capacities that have the potential and power to improve collective community welfare and togetherness in building social life by the mandate of the regional autonomy law. The existence of civil society will be determined by how much the existence of regional government and its apparatus can influence and encourage society to exist in developing for the common good sustainably. It can be assumed that the existence of regional government so far is still in the domain of further strengthening the identity of its apparatus and the organizational structure and regulatory system that can support the achievement of good governance for the development of regional potential and its people as a form of regional government accountability in the process of implementing regional government by mandate of Law Number 32 of 2004 concerning Regional Government, which

provides direction for the realization of regional governance that can determine the basis of national life, a sustainable state in the perspective of regional autonomy[10].

Creating a digital village itself has several conditions that must be met. Digital villages require the availability of adequate information and communication networks, whereas digital villages must have good communication networks because this is a factor that is used to use online-based systems. Second, to create a digital village, quite large funding is needed. Currently, digital villages are the result of collaboration between regional governments and the central administration through the Communications and Information Telecommunication and Information Accessibility Agency (BAKTI) and other parties. Third, the availability of human resources (HR) who manage various online information technology-based services.

The Urgency of Optimizing Digital Villages in Public Services in the Era of Technological Disruption Case Study of Bergas Village, Semarang Regency, Central Java Province

One form of digitalization of village government activities is the implementation of Smart government. Smart governance is about redesigning formal democratic governance and maintaining historically and economically developed democratic principles. Smart governance consists of three parts, namely community participation in making decisions directly or indirectly, increasing the number and quality of public services, and the existence of a structured and well-organized database for storing data and information related to public services. After analyzing the tourist village and several internal aspects [11].

It is hoped that this change in views about villages can improve the effectiveness and governance of village government and improve the quality of public services to improve the social welfare of village communities. To realize this goal, village governments are required to be innovative in managing their village government. One innovation that can be carried out by the village government is employing information technology in carrying out village government administration. This is because information technology can now be accessed by various groups. The use of digital marketing applications in efforts to digitize village tourism that have been used in case studies include websites, social media, web forums, online advertising, and mobile applications. The benefit of digital marketing in the current era of tourism has changed industrial paradigms, jobs, ways of communicating, shopping, transactions, and even lifestyles[12].

Indonesia, which is known as a country that has natural resources, has great potential to implement digital villages. This is because existing natural resources if managed well and distributed for the benefit of the Indonesian people using digital technology, will provide high added value. Apart from that, Indonesia should be able to develop agricultural products, and

plantations as well as livestock and fisheries activities using advanced technology, information, and communication. If this can be realized, then Indonesia can become a developed country based on agriculture, and not dependent on imports of basic materials from other countries. Indonesia, as one of the countries with the largest population in the world, should be oriented towards meeting the needs of its people by empowering their abilities and outcomes[13].

Many forms can be chosen in the Regional Government (Pemda) HR development model. However, there needs to be a development framework that is relevant to each existing activity. For example, strategic areas in the Regional Government Strategic Plan should also determine the type, quantity, and quality of human resources needed in the region, especially for the needs of regional government institutions/institutions. Experience shows that often human resource development is not linked to regional strategic needs, and even seems to make little contribution to regional government itself. In the context of HR, the focus should be on developing: 1) skills and expertise, 2) insight and knowledge, 3) talent and potential, 4) personality and work motives, and (5) morals and work ethic. Institutional capacity development is traditional capacity development and organizational strengthening that focuses on development resources almost entirely on human resource issues, processes, and organizational structures. The modern approach examines all dimensions of capacity at all levels (strategy mission, culture, management style, structure, human resources, finance, information assets, infrastructure) including interactions within the wider system, especially with other entities, shareholders, and customers.[14]. There are many opinions on developing institutional capacity, seen from the theory above, that the dimensions relating to organizational strengthening are strategy, culture, management style, structure, human resources, finance, information assets, and infrastructure.

Digital villages are one of the programs to reduce the gap in information flow that occurs in villages. The concept of a digital village is the use of integrated information and communication technology in public services and economic activities. Currently, the use of information and communication technology is still very minimal in villages. The thing that causes the lack of use of technology and information and communication in a village is a lack of understanding regarding information and communication technology. The problem requires an understanding of the use of information and communication technology so that it can be used by villages to create a village that can reduce information limitations. Socialization activities are one way to make this happen with material provided related to digitalization, digital villages, the benefits of digitalization, and providing examples of the use of village

digitalization. It is hoped that in the future the village can implement several information systems that can make it easier for villages to supply broad information regarding their village. Apart from that, it is also to be able to help promote products produced in the village so that they can be widely known by the public both domestically and abroad.

CONCLUSION

1. Village Development in Indonesia desires to improve the welfare and quality of life of village communities through fulfilling basic needs, developing village infrastructure, developing local economic potential, and sustainable use of natural resources as stated in Law No. 6 of 2014 concerning Villages.
2. By empowering village communities and developing local natural resources, it can become a tourist area, or what is hereinafter referred to as a tourist village. In developing tourist villages, Information and Communication Technology can be applied, because it is very unfortunate in the digital era 4.0. technology is not utilized optimally. The application of Information and Communication Technology in tourist villages in tourism village marketing is often called tourism digitalization.
3. The digitalization of village government activities is the implementation of Smart government. Smart governance is about redesigning formal democratic governance and maintaining historically and economically developed democratic principles. Smart governance consists of three parts, namely community participation in making decisions directly or indirectly, increasing the number and quality of public services, and the existence of a structured and well-organized database for storing data and information related to public services. After analyzing the tourist village and several internal aspects.

SUGGESTIONS

1. The digital village concept has two critical elements in it, i.e., village neighborhood empowerment and information technology. The internet-based rural development paradigm is important to carry out amidst the development of information and communication technology. It is hoped that this change in views about villages can increase the effectiveness and governance of village government and improve the quality of public services so it can enhance the social welfare of village communities. To realize this goal, village governments are required to be innovative in managing their village government.

2. Village government and improving the quality of public services can improve the social welfare of village communities. To realize this goal, village governments are required to be innovative in managing their village government. One innovation that can be carried out by village government is by utilizing information technology in carrying out village government administration.
3. Improvements were made to work mechanisms and methods as well as working relationships between Regional Government organizational units and between Regional Government organizational units and other parties.

REFERENCES

- [1] Zakaria, “Konsep Pengembangan Kawasan Desa Wisata di Desa Bandungan Kecamatan Pakong Kabupaten Pamekasan,” *J. Din.*, vol. 07, pp. 12–17, 2014.
- [2] F. P. Simbolon and L. Yanti, “Customer Engagement in Higher Education: How Important the Role of Social Media Marketing, E-Service Quality and E-Satisfaction for Generation Z Students?,” *The Winners*, vol. 22, no. 1, pp. 15–23, 2021, doi: 10.21512/tw.v22i1.6970.
- [3] L. Y. Liu, “The Influence of Digital Marketing The Country of Origin Image, Service Quality and Product Involvement on Consumer Purchase Decisions : An Empirical Study of Insurance and Catering Services in Taiwan,” *J. Consum. Mark.*, vol. 23, pp. 248–265, 2018.
- [4] Andriani, “Potensi Pengembangan Agrowisata Berbasis Komunitas Di Desa Cibodas Kecamatan Lembang Kabupaten Bandung Barat,” *Jurna Manaj. Desa Maju*, vol. 07, pp. 33–45, 2019.
- [5] H. Atmoko, “Strategi Pengembangan Potensi Desa Wisata Brajan Kabupaten Sleman”, dalam *Jurnal Media Wisata*,” *J. Din. Manaj.*, vol. 13, pp. 23–27, 2018.
- [6] Sugiyono, *Metode Penelitian Pendidikan Pendekatan Kuantitatif*, 2nd ed. Bandung: Gramedia Pustaka Utama, 2013.
- [7] L. J. Moleong, *Metodologi Penelitian Kualitatif*, 7th ed. Bandung: PT. Remaja Rosdakarya, 2004.
- [8] Rohim, “Pemberdayaan Masyarakat Melalui Pengembangan Desa Wisata (Studi Di Desa Wisata Bejiharjo, Kecamatan Karangmmujo, Kabupaten Gunungkidul, DIY,” *Jurna Manaj. Desa Maju*, vol. 07, pp. 13–15, 2020.
- [9] Martono, “Pemberdayaan Masyarakat Melalui Pengembangan Desa Wisata Dan Implikasinya Terhadap Ketahanan Sosial Udaya Wilayah (Studi Di Desa Wisata Panglipuran Bali),” *J. Huk. Bisnis, Yayasan Pengemb. Huk. Bisnis*, vol. 01, p. 2014, 2016.
- [10] N. Kamariah, “Capacity Building : Birokrasi Pemerintah Daerah Kabupaten/Kota di Indonesia.,” *Sekol. Tinggi Ilmu Adm. Adm. Negara (STIA LAN)*, vol. 02, pp. 55–60, 2012.
- [11] D. Ratnasari, “Pengembangan Kapasitas (Capacity Building) Kelembagaan Pada Badan Kepegawaian Daerah Kabupaten Jombang,” *J. Adm. Publik*, vol. 03, pp. 32–

42, 2000.

- [12] Watkins, "Digital tourism as a key factor in the development of the economy," *Tour. Manag. Innov.*, vol. 22, pp. 18–23, 2021.
- [13] Kusuma, "Potensi Pengembangan Agrowisata Berbasis Komunitas Di Desa Cibodas Kecamatan Lembang Kabbupaten Bandung Barat," *J. Adm. Publik*, vol. 05, pp. 23–27, 2017.
- [14] K. Anggraini, "Pengembangan Kapasitas Pegawai Untuk Mewujudkan Good Governance Studi Pada Kantor Badan Kepegawaian Daerah Kabupaten Malang," *J. Adm. Publik*, vol. 03, pp. 17–29, 2007.