

Analysis of E-Governance Program “Badung Smart City” at the Department of Population and Civil Registry Office of Badung District, Bali, Indonesia

Yudhiantara, I Made¹, Lilik Antarini², Adi Permana Putra, I Putu³

^{1,2,3} Public Administration Department, Faculty of Social and Political Sciences, Warmadewa University, Bali, Indonesia

¹Corresponding author Email: [yudhi.warmadewa\[at\]gmail.com](mailto:yudhi.warmadewa[at]gmail.com)

Abstract: *In general, the weak performance of the bureaucracy, especially in developing countries, has been responded by public administration experts by introducing various paradigms. The latest strategy proposed is the effort to create a good governance system. Within the framework of this effort, the E-Government (e-Gov) model was introduced as a mechanism for interaction between the government and the community and other parties, by utilizing ICT advances to improve the quality of public services. Currently, the concept of e-Government has been moderated into e-Governance which has included aspects of community empowerment (civic engaging) and public participation. The dynamics of public services continues to evolve in line with the demands of society. In line with the dynamics, the Smart City concept emerged, namely a city that is more humane to its citizens, starting with the concept of planning, structuring and managing cities that are mutually integrated in all aspects of life. In the Badung Regency Government, the Badung Smart City Program has also been introduced. This program is held as a form of implementing the Electronic-Based Government System. For researchers, it is essential to delve in the practice of Badung Smart City from an e-Governance perspective because both prioritize community involvement. The research uses qualitative methods, with interactive model analysis techniques from Miles, Huberman and Saldana (2014). Data collection was carried out using documentation, interviews and observation techniques. The results of this study indicate that SPBE in Badung Regency is at the stage of adaptation and integration. The implementation of the Badung Smart City Program (PBS) is marked with a website address at <https://map.badungkab.go.id/> with 14 categories of information. The BSC information is more of an image and mapping data, and minimal narration. The adaptation and integration perspectives have been well implemented, but from the substance of e-Governance, community electronic participation and Community Empowerment the actions and impacts are not yet clear.*

Keywords: Electronic Government, Electronic Governance, Electronic-Based Government System, Smart City

1. Introduction

Service to the community has become the main objective in the practice of public administration. In Indonesia, the delivery of public services is becoming an increasingly strategic policy issue because the improvement of public services in this country tends to be stagnant, while the implications, as is well known, are very broad because they are connected to all public spheres in economic, social, political, cultural and other aspects.

Public service is the right of every citizen and it is the government's obligation to fulfill it. The establishment of bureaucratic institutions is intended as a public instrument to realize these goals, among others, for the welfare of the people by providing good, participatory, accountable and transparent public services. If the public service function carried out by the bureaucracy is good enough, of course it will give good impacts to the image of the bureaucracy in society. However, the reality that has developed in Indonesian society so far has often sounded a negative impression so that it is very contrary to these expectations.

From a theoretical perspective, public administration experts have introduced various paradigms in order to improve bureaucratic performance. The latest strategy proposed is the creation of a good governance system. One of the efforts to realize good governance has also introduced the E-Government (e-Gov) model as a mechanism for interaction between the government and the community and other

interested parties, by utilizing information technology and communication technology for the purpose of improving the quality of public services. In Indonesia e-Gov is known as the Electronic-Based Government System (SPBE) according to Presidential Regulation 95/2018.

In line with the advancement of Information and Communication Technology (ICT's), the concept of e-Gov has transformed into e-Governance which includes aspects of civic engagement and public participation (Yudhiantara, I Made, et al., 2019). The dynamics of public services continue to evolve in line with the demands of society and the development of ICT's. Besides the emergence of the concept of e-Governance, there is also the idea of Smart City, namely a city that is more humane to its citizens starting with the concept of planning, structuring and managing cities that are mutually integrated in all aspects of life.

Smart City can be interpreted simply as a smart city or smart city that can provide a better quality of life and convenience for its people. Badung Regency is one of the regencies in the Province of Bali which has been used as a pilot project to accelerate the implementation of smart cities in Indonesia (Suyudi, T., 2021). Electronic Governance as the latest approach in expanding the role of e-Gov, is used in this research to analyze the Badung Smart City Program organized by the Badung Regency Government, in the Province of Bali.

Volume 12 Issue 7, July 2023

www.ijsr.net

Licensed Under Creative Commons Attribution CC BY

2. Literature Review

2.1 Electronic Governance

In Indonesia, the application of the electronic governance concept began with the e-Government (e-Gov) initiative, namely with the issuance of the Presidential Instruction of the Republic of Indonesia No. 6 of 2001 concerning Telematics, and subsequent Presidential Instruction No. 3 of 2003 regarding e-Government development policies and strategies. In Presidential Instruction No. 3/2003 stated that e-Gov is an effort to develop governance based on (using) electronics in order to improve the quality of public services effectively and efficiently. Through the development of e-gov, management systems and work processes are arranged in the government environment. Through Presidential Instruction No. 3 of 2003, the government instructed several officials of government agencies, including Governors and Regents/Mayors, to take steps to optimize the use of information technology. In accordance with the Presidential Instruction, every Governor and Regent/Mayor is mandated to take the necessary steps in accordance with their respective duties, functions and authorities in order to carry out the development of e-Gov nationally.

Electronic-Based Government System (SPBE) or better known as E-Government is a government administration that utilizes information and communication technology to provide services to SPBE Users. This is stated in Presidential Regulation no. 95 of 2018 concerning Electronic-Based Government Systems. SPBE aims to realize good governance and improve the quality of public services and increase community participation in the implementation of development. In accordance with this explanation, it is clear that the spirit of SPBE is in line with the previous explanation about the urgency of e-Governance, namely improving services by involving or participating the public.

With regard to efforts to realize the SPBE goals, it is important to elaborate on adaptation and integration in advance, as revealed by Richard M. Steers (1990). relates to the ability of an organization to socialize, develop consensus and communicate with various other stake holders. Efforts to realize policy goals or programs are thus closely related to organizational efforts to adapt and integrate, because if an organization succeeds in adapting, for example, with ICT advances and is able to integrate it, then the organization can implement the next program.

The dynamics and existence of e-Gov in subsequent developments are regulated by Presidential Regulation No. 95 of 2018 concerning Electronic-Based Government Systems. SPBE aims to realize good governance and improve the quality of public services and increase community participation in the implementation of development. Between quality public services and the application of smart cities or smart cities is service development and a form of government commitment so that a city is able to implement and implement technology in an innovative, effective manner and to realize a better quality of life.

When it was first introduced by the World Bank in 1989-1992 the term governance was defined as the practice of power in development management (Budiman Rusli, et al., 2020). Meanwhile, the emergence of the concept of electronic governance is inseparable from the demands of the public's need for better e-Gov services with community empowerment and community participation. As stated by Bhatnagar (2004) e-Governance is, "the use of ICT by the government, civil society and political institutions to engage citizens through dialogue and feedback to promote their greater participation in the process of governance of these institutions." Starting from this definition, e-Governance facilitates dialogue and feedback to promote broad participation in governance processes, in government institutions, politics and civil society. It is further explained, that e-Government can be seen as part of e-Governance, and the focus is mostly on increasing administrative efficiency and reducing administrative corruption. Fang (2002) reinforces the position of e-Governance as a successful form of e-Gov implementation. According to him, some of the characteristic features of countries that have successfully implemented e-Gov projects around the world are as follows: (1) Comprehensive. (2) Integrated. (3) Ubiquitous. (4) Transparent / Easy to Use. (5) Accessible. (6) Safe. (7) Privacy. (8) Engineering. (9) Interoperability. What Fang (2002) said above, implies that e-Governance is broader or is a development of e-Government. This is in line with Basri's (2009) explanation which says e-Governance includes a very broad component which essentially uses e-Gov as its main component. According to Harris (2000), e-Governance is not just about government websites and e-mail, not just about providing services via the internet, not just about digital access to government information or electronic payments. E-Governance initiatives enable citizens to communicate with the government, participate in government especially in policy making and among citizens to be able to communicate with each other and to participate in these processes. Building public participation through e-Gov is the keyword for e-Governance. In other words, e-Governance is not only related to the use of ICT as a tool to encourage improvements in government agencies, but also to improve the social and regulatory environment for implementing the use of ICT (MR Khairul Muluk and R.A.Nugroho, 2020).

The e-Governance perspective emphasizes the importance of interaction between government and society to foster public participation. If the e-Gov services provided by the government are really for the benefit of citizens, then it makes sense that the government needs to find out what citizens want and expect about e-Gov services. If citizens are not involved in developing e-Gov, then it is necessary to ask who is e-Gov really for? The attitude of the government that does not respond to the needs of citizens, in the development and implementation of e-Gov, occurs in both developed and developing countries, so that sometimes the aspirations of the leaders are not in line with the expectations of society (Mundy and Musa, 2010). Besides being adaptive to the urgency of community participation, Lilik Antarini, et al (2022) in his study added that the concept of public service conditions governance to achieve the goals of the government service program. The urgency of implementing the spirit of governance also surfaced in the research results of Yudhiantara, et al. (2021) in their research on "Building the

Spirit of Governance in Realizing the Village SDGs in Bali Province". Today's developments, which are marked by technological advances, the concept of governance, especially in the public sector, has been adapted to an electronic-based government system so as to present the urgency of e-Governance.

In public administration, participation in the service process for citizens and also, in the policy-making process, marks the running of the democratic process in the bureaucracy, which also means the presence of public legitimacy. The government together with the community can develop communities, namely building the social and economic capacity of the community to increase the potential for welfare and the quality of life of the community (Khalil, 2014). It is in this aspect that efforts to empower citizens through the use of ICT are indispensable. Citizen empowerment is basically a development process in which the community takes the initiative to start a process of social activity to improve their own situation and condition. Citizen empowerment can only occur if the community itself also participates. Likewise in efforts to build and develop an ICT-literate society (e-citizen community). So the role of the community to contribute is as important as the government's role as a provider of ICT-based public services. When ICT is introduced, people who are able and able to use it will immediately use it. The first group to embrace technology is usually people who are educated, who are able, and who are aware of its uses. That fact can have a positive impact, but it risks alienating the uneducated, the incapable, and the unaware of its use. Therefore, ICT interventions should target especially disadvantaged people, in order to share with them the advantages that ICTs can provide.

According to Jimenez, Mossberger, Yonghong Wu (2012) empowering citizens by involving them in the policy-making process ultimately promotes transparent and accountable government. Exemplified by many cities in the U.S., the use of ICT, especially the internet, has become an indispensable tool for performing important functions. From government, particularly the provision of services to citizens, can also be an important tool for empowering citizens and involving them in the policy-making process, thereby promoting more transparent and accountable government. At the local level including municipal governments where the internet has the greatest possibility of promoting citizen engagement. The process of involving citizens in this two-way interaction can provide feedback to the government to improve organizational performance and improve public service processes. The entire process in e-G reflects what Kim (2005) calls "administration in citizens", or "citizens in public administration".

From what has been described above, it seems clear that electronic governance is not merely about adopting technological advances to expedite or make bureaucratic operations efficient but rather emphasizes citizen involvement, or fulfilling public aspirations and even empowering them (Civic Engagement). This hope is in line with the spirit of Presidential Regulation No. 95 of 2018 to build public participation while realizing better public services.

2.2 Smart City

A study conducted by Abdurrozzaq Hasibuan and Oris Krianto Sulaiman (2019) states that Smart City is the application of the smart city concept by utilizing technology and communication to create better community services. The Smart City concept will also increase community and government participation in utilizing application data, providing input and criticism easily. The Smart City concept which is a major issue in big cities around the world encourages the active role and participation of the community in city management using a citizen centric approach so that there is a more dynamic and close interaction between residents and service providers, in this case is Local government. The four pillars of smart city development include; The first pillar is people (users) including character and morals, adherence to policies (compliance). The second pillar is service mechanisms and standards, including patterns of relationships between stakeholders, public service integration mechanisms and data. The third pillar is ICT infrastructure, to integrate services and data (information) to drive all online access, automation media such as network infrastructure, broadband, data center/cloud, data sharing platform/big data, applications, CCTV, and so on. The fourth pillar is the smart city institutional structure to carry out analyzers, integrators, evaluators, and align IT Governance with business processes. Smart city institutions will oversee the sustainability of development programs that have been initiated by the local government. The government's performance in serving the community is increasing and satisfying. Along with the development of globalization, actors in international relations are no longer just states, but all components of society can become actors in international relations, including regional/city governments. The role of the city government as a sub-national actor is increasingly encouraged and focused on the ability to establish international cooperation. International cooperation carried out by regional/city governments such as sister city cooperation (twin cities).

Saraju P. (2016) states that the challenges for building smart cities are quite diverse and complex. A few include cost, efficiency, sustainability, communication, safety, and security. The research results presented by Abdurrozzaq Hasibuan, and Oris Krianto Sulaiman (2019) convey the importance of paying attention to the 4 pillars in the development of realizing a smart city, namely users, service mechanisms and standards, infrastructure and institutions. Besides the 4 pillars, the article also proposes to consider the creation of a sister city. The sister city concept is related to the role of the city government as a sub-national actor whose ability to establish international cooperation must be increasingly encouraged. Meanwhile, what was conveyed by Saraju P. (2016), stated that the challenges of building a smart city are quite diverse and complex. Some of those challenges include cost, efficiency, sustainability, communication, safety and security.

Widiyastuti, et al (2021) proposed integrated smart city models and indicators according to the characteristics of cities and districts in Indonesia. The Smart Sustainable City Framework (SSCF) model is a self-measurement model of the maturity level of smart city enabler components, the

priority level of smart city dimensions, and the level of availability of indicator data that can be used by local governments. The SSCF model consists of an enabler component layer and SSCF dimensions. The enabler component is the core component driven by local government and includes governance and technology. The dimension components include smart mobility, smart governance, smart environment, smart living, smart people, and smart economy. With these measurements, it is hoped that local governments will have comprehensive descriptions and measurement results on conditions at the time of measurement to develop smart city implementation strategies in their regions.

Caragliu, Del Bo and Nijkamp (2009), said that a smart city is a city that is able to use human resources, social capital and modern telecommunications infrastructure to realize sustainable economic growth and a high quality of life, with wise resource management through community-based government.

First, the Smart Economy is innovation and competition, the higher the new innovations that are enhanced, the more new business opportunities will be created and the business/capital market competition will increase. Included in the smart economy are the development of city branding, entrepreneurship development, and e-Commerce development. Second, Smart People, which includes education and development of technologically literate Human Resources, research support, and development of the socio-cultural character of the community. Third, Smart Governance, namely the development of e-governance, where there is community participation in development planning, development of Information and Technology networks, development of IT-based transportation systems, to information systems development, and IT-based management. The fourth is Smart Living, namely easy access to education services, easy access to health services, developing the role of the media, and easy access to security guarantees. The fifth is smart mobility, namely transportation and infrastructure, management of city infrastructure which is an integrated management system and is oriented to guarantee alignment with the public interest. The sixth is a smart environment (sustainability and resources), an environment or environment that can provide comfort, sustainability of resources, physical and non-physical beauty, visual or not, for the community and the public, a clean, orderly environment.

In addition, Smart City is the development and management of cities by utilizing information technology (IT) to connect, monitor and control various existing resources within the city more effectively and efficiently to maximize services to its citizens and support sustainable development. But the IT system is not the main goal, many cities spend on IT but don't manage it optimally. Therefore, a smart city is not always for a city that must have adequate internet access and be IT-based. According to Muliarto (2015), a smart city is a way of connecting physical infrastructure, social infrastructure, and economic infrastructure in an area using ICT technology, which can integrate all elements in these aspects and make cities more efficient and livable. Smart city or smart city is a concept of developing a city by implementing and implementing technology in an innovative, effective and efficient manner by connecting physical, economic and social

infrastructure in an area so as to improve services and create a better quality of life. A smart city is a city area that has integrated information and communication technology in daily governance with the aim of realizing efficiency, improving public services, and increasing the comfort and welfare of its citizens. A smart city is a good performance for a city, which is supported by a combination of smart (smart) activities, studies, discoveries, and awareness from the people of the city. Smart cities are expected to have a positive impact on government, social life, transportation, quality of life, fair competition in all fields, by utilizing information and communication technology.

From the explanation above, it can be concluded that a smart city is the realization of a smart combination of government, society and systems in a city by utilizing technology, information and communication (ICT). Smart City is expected to support transparent and sustainable development.

3. Method

The type of research used in this study is qualitative research, which is a tradition in the social sciences that fundamentally relies on direct observation of humans in their real living environment and emphasizes the socially constructed nature of reality, involving a close relationship between the researcher and the subject being studied. researched while trying to find answers to questions that highlight how social experience emerges as well as the acquisition of meaning (Denzin and Yvona, 1997: 8).

According to Prastowo (2011), the qualitative method is a systematic research method that is used to study or research an object in a natural setting without any manipulation in it and without testing hypotheses, with natural methods where the results of the research are not generalizations based on quantity measures but in the form of meaning (in terms of quality) of the observed phenomenon. Through qualitative methods, descriptive data (description of information) is generated about people and observable behavior (Bogdan and Taylor, in Moleong, 1989). Starting from the above understanding, this research will analyze and describe the Badung Smart City Program as a form of Electronic System-Based Government (PBSE) service from the perspective of Electronic Governance.

This research was conducted at the Badung Regency Population and Civil Registry Office. The unit of study in this study is the Badung Smart City program at the Badung Regency Government Population and Civil Registry Service. While the sampling was carried out purposively involving 12 informants who were competent in their fields.

This research is a type of descriptive qualitative research, according to Miles, Huberman and Saldana (2014) states that qualitative data analysis consists of: data condensation, data presentation, drawing conclusions/verification. As for events, actions, events, conditions that are spread in society are concrete tables that will be interpreted and the meanings contained in these tables will be explored in qualitative research.

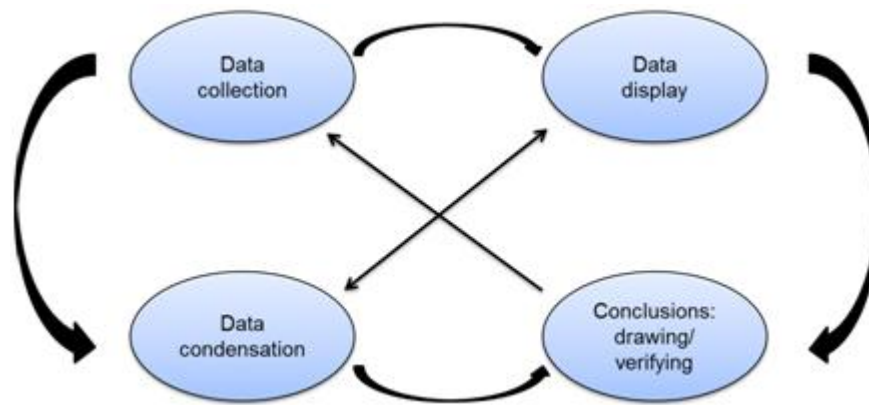


Figure 1: Interactive Model Data Analysis Components

Source: Miles, Huberman and Saldana (2014)

In the data condensation phase, refers to the process of several stages as follows:

- 1) Selection: The researcher must act selectively, i.e. determine which dimensions are more important, which relationships may be more meaningful, and as a consequence, what information can be collected and analyzed.
- 2) Focusing: At this stage, the researcher focuses on the data according to the formulation of the problem in the research
- 3) Abstracting: Abstraction is an attempt to make a summary of the core, processes, and statements that need to be maintained so that they remain in it. At this stage, the data that has been collected up to the focusing stage is evaluated by the researcher, especially with regard to the quality and adequacy of the data.
- 4) Simplifying and Transforming: Data that has gone through several stages up to the data abstraction stage in further research is simplified and transformed.

Then, from the several stages that have been carried out and the last is drawing conclusions from the analysis that has been carried out and re-checking with the evidence that has been found in the field. The meanings emerging from the data must be tested for their validity, their robustness and their suitability, that is, their validity.

4. Results and Discussion

4.1 Implementation of the Badung Smart City (BSC) Program

At the Badung Regency Population and Civil Registry Office, there are 41 types of services that must be carried out to the community, namely:

- 1) Family Card Service
- 2) Resident's Identity Card Service
- 3) Family Card Services (Change of Data Elements)
- 4) Certificate of Residence Service
- 5) Family Card Legalization Service
- 6) Service for Legalizing Identity Cards
- 7) Certificate of Substitute Identity Service (SKPTI)
- 8) Displaced Person Certificate Service (SKOT)
- 9) Service for Certificate of Community Mark (SKTK)
- 10) Civil Registration Certificate Service (SKPS)
- 11) Divorce Certificate Legalization Service

- 12) KTP-EL certificate service
- 13) Birth Certificate Service
- 14) Quotation Service II Birth Certificate
- 15) Overseas Birth Reporting Service
- 16) Ball Pick Up Service (Birth Certificate)
- 17) Child Recognition Deed Service
- 18) Child Legalization Deed Service
- 19) Child Adoption Certificate Service
- 20) Citizenship Service
- 21) Ball Pick Up Service (Marriage Certificate)
- 22) Death Certificate Service
- 23) Service for Quote II Death Certificate
- 24) Overseas Death Reporting Service
- 25) Services for Legalizing Death Certificates
- 26) Birth Certificate Legalization Service
- 27) Marriage Certificate Service
- 28) Divorce Certificate Service
- 29) KUA Marriage Reporting Service
- 30) Overseas Marriage Reporting Service
- 31) Certificate of Never Married Service
- 32) Complaints Service
- 33) Death Benefit Service
- 34) Indonesian/foreigner Transfer Certificate (SKP) services
- 35) Service for Transfer Certificate (WNA/WNI)
- 36) Child Identity Card Services
- 37) Temporary Stay Certificate Service
- 38) Three in One Program Service (I Greet 1) (Birth Certificate, MCH, Family Card)
- 39) Three in One Program Services (I Sapa 2) (Marriage Certificate, KTP, Family Card)
- 40) Three in One Program Service (I Greet 3) (Death Certificate, Death Compensation, Family Card)
- 41) Three in One Program Service (I Greet 4) (Divorce Certificate, KTP, Family Card)

All types of services are integrated in the AKU DICARI application (Self Registration and Self Printing Population Administration). AKU DICARI is an innovation in population administration services carried out with web-based electronic media that utilizes technology and information facilities. where for the process of managing community population documents it is enough to access the AKU DICARI web from their respective homes "and the results of the service will be sent directly to the community's WhatsApp (except KTP and KIA because they use security

printing, printing is still done at the Disdukcapil ktr and or public services in the District) besides the public can print both of these documents (KTP, KIA) directly at their respective homes and/or elsewhere. All services at the Badung Regency Population and Civil Registry Office are all free (no charge) and open. Upload files can only use jpg and png only. The Service also notifies that the registered WhatsApp number is active for service notification purposes (1 WA number is only for 1 active user). The public can collect files by: 1. Print independently (except KTP-EL and KIA) 2. Come directly to the DISDUKCAPIL office 3. Come directly to the CAMAT office where you live 4. Print it at the village office.

In order to support the development of the Badung Smart City (BSC) Disdukcapil, the Badung Regency Government first looks at the extent to which the SPBE implemented is able to adapt and integrate its services. Adaptation is used to analyze how fast the community adapts to the changes in services that are currently being implemented in Badung Regency. While integration is to find out the communication process in electronic-based services in realizing Badung Smart city.

To describe the Implementation of the BSC Program, first explore the adaptation and integration capabilities of the government regarding the implemented policy programs. From an adaptation perspective, field findings show that changing the nature of services from manual to electronic services is one of the government's first steps in realizing a smart city. The results of the interviews show that not all people can accept change quickly. People who are less technologically literate will need time to adapt to electronic-based services. Not to mention that there are some people who do not have enough facilities to carry out electronic services. To overcome this problem, the government is still opening services manually, which requires people to come directly to the Office. Communities that perform this manual service are, for example, older people who are less technologically literate.

Even so, most people can adapt quickly to electronic-based public services. It was revealed that the community felt satisfied and greatly assisted by the existence of electronic-based public services even though the obstacle they were still experiencing was the existence of an error system when too many people accessed electronic services.

From an integration perspective, it was revealed that the communication process carried out by the Badung Regency Population and Civil Registration Service apparatus included direct communication, namely conveying information related to online services directly to people who came to Disdukcapil. The information provided can be in the form of procedures for using online web services so that people understand how

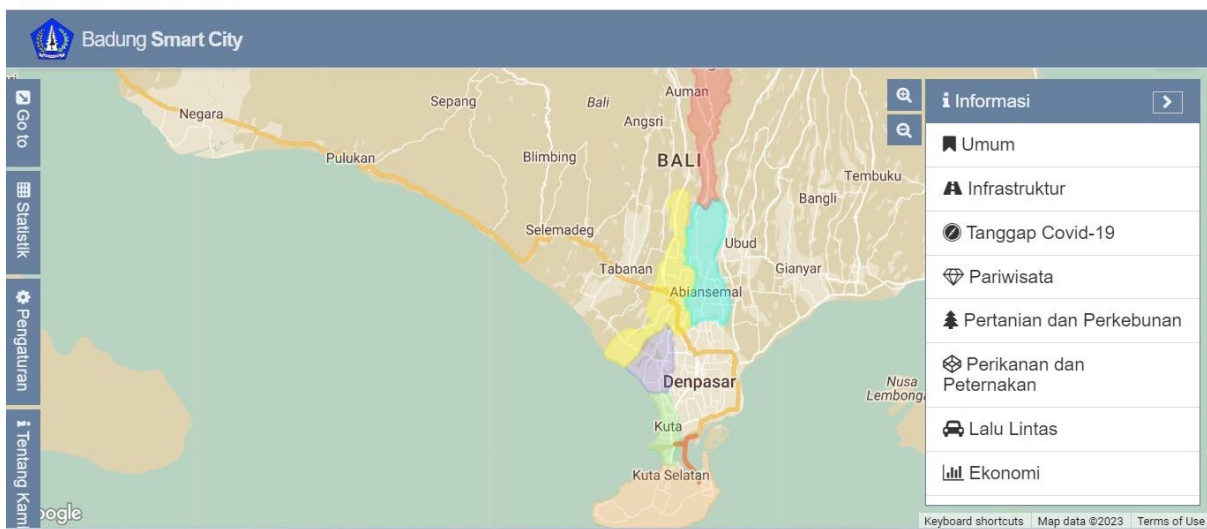
to use electronic-based services. The Office also works with village and sub-district officials to convey information related to online or electronic-based public services.

Indirect communication is carried out by conveying information through social media, websites and also whats-app groups to upload important information related to the implementation of electronic services, so that the public can see this information. This is also one of the efforts to increase information transparency by the government for the needs of the community. BSC integrates all work unit tasks in Badung, so that it will simplify, simplify and guarantee transparency of governance, others.

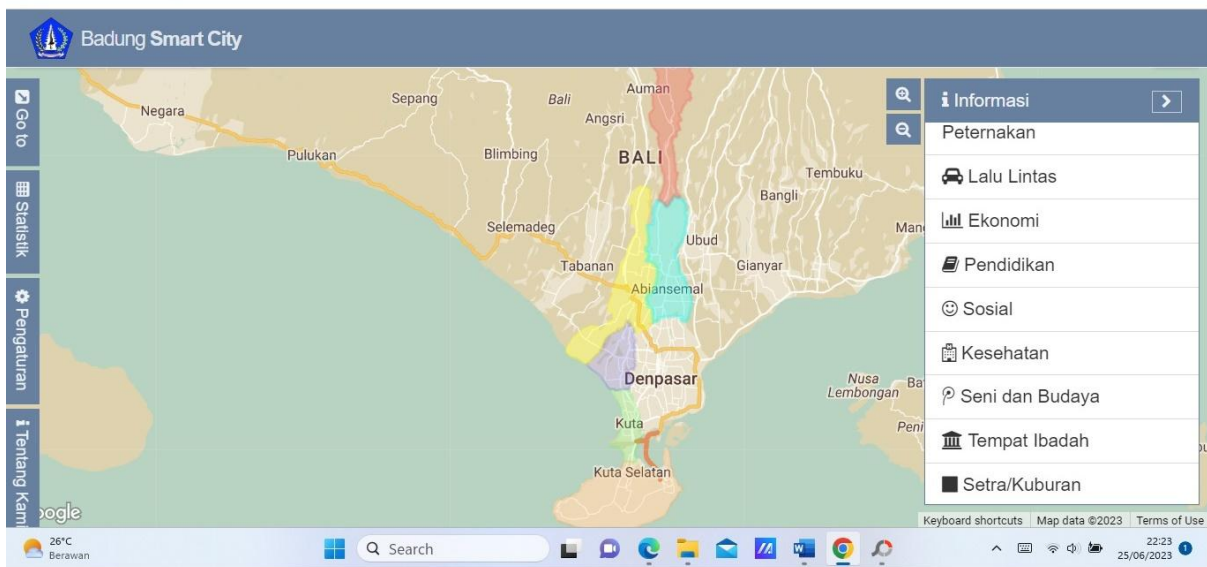
The implementation of the BSC Program in Badung Regency is currently at the impact level and has involved all elements in utilizing and optimizing existing resources. Free internet service has been provided by the Badung Regency Government. This service can not only be used within the banjar hall, but the banjar and the village can use it for their own citizens.

The implementation of the BSC Program, guided online by the 'Badung Smart City' application which contains a variety of information about Badung Regency that can be accessed by the whole community. In this application, it provides features that contain nine missions consisting of various information that can be accessed if needed by the public. The first mission is about information on the diversity of customs, cultures and religions. The second mission is related to governance information. The third mission is about public service information. The fourth mission in this application consists of education and health information. The fifth mission contains information on the people's economy. And the sixth mission is information about law enforcement. The seventh mission is information about the environment. The eighth mission contains information regarding infrastructure. And, the ninth mission is information about tourism. In addition to making it easier for the public to access information about Badung Regency, the application is also expected to make it easier for the leadership of the Badung Regency Government to view data from each Regional Apparatus Organization (OPD). The mission in question displays the BSC Map Program through a website with the address map.badungkab.go.id. The site displays information features, which are divided into 14 categories:

- 1) General
- 2) Infrastructure
- 3) Response to Covid-19
- 4) Tourism
- 5) Agriculture and Plantation
- 6) Fisheries and Livestock
- 7) Traffic
- 8) Economy



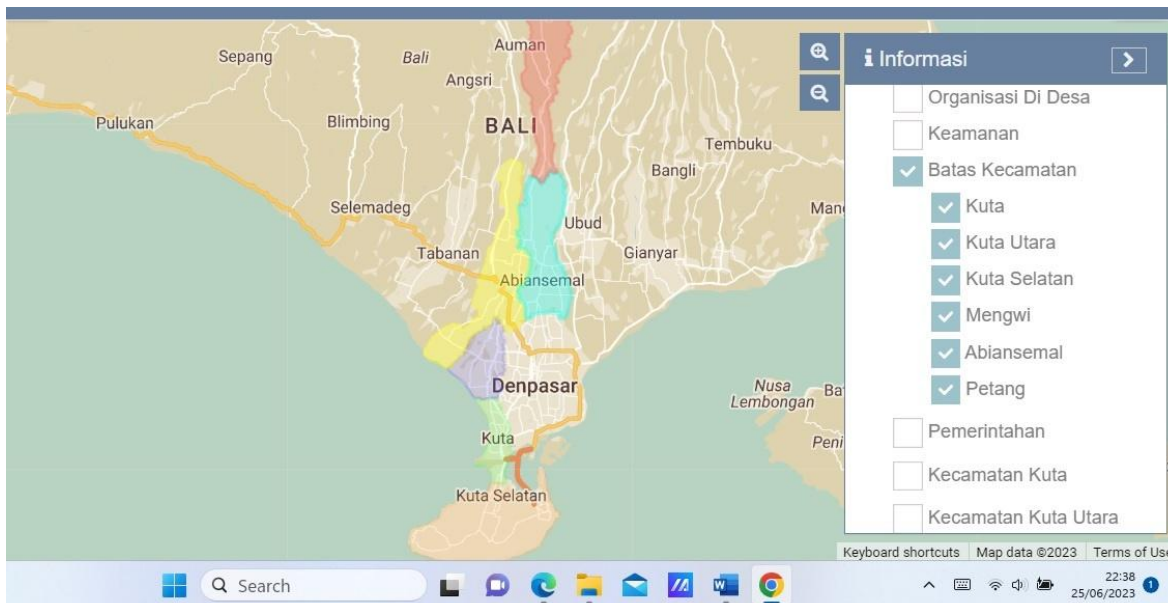
Picture 4.1: Display of Badung Smart City 1
 Source: <https://map.badungkab.go.id/>



Picture 4.2 Display of Badung Smart City 2
 Source: <https://map.badungkab.go.id/>

- 9) Education
- 10) Social
- 11) Health
- 12) Art and Culture
- 13) Places of Worship
- 14) Graves.

In the General category, if clicked, it will display fields including Banjar Service, Village Organizations, Security, District Boundaries, Government, which are divided into 3 offices such as: Government Office, Camat Office, Village Office. In the various fields above, if clicked will display various sub-sectors, for example the sub-district boundary will display, among others: Kuta District, North Kuta District, South Kuta District, Mengwi District, Abiansemal District, Petang District

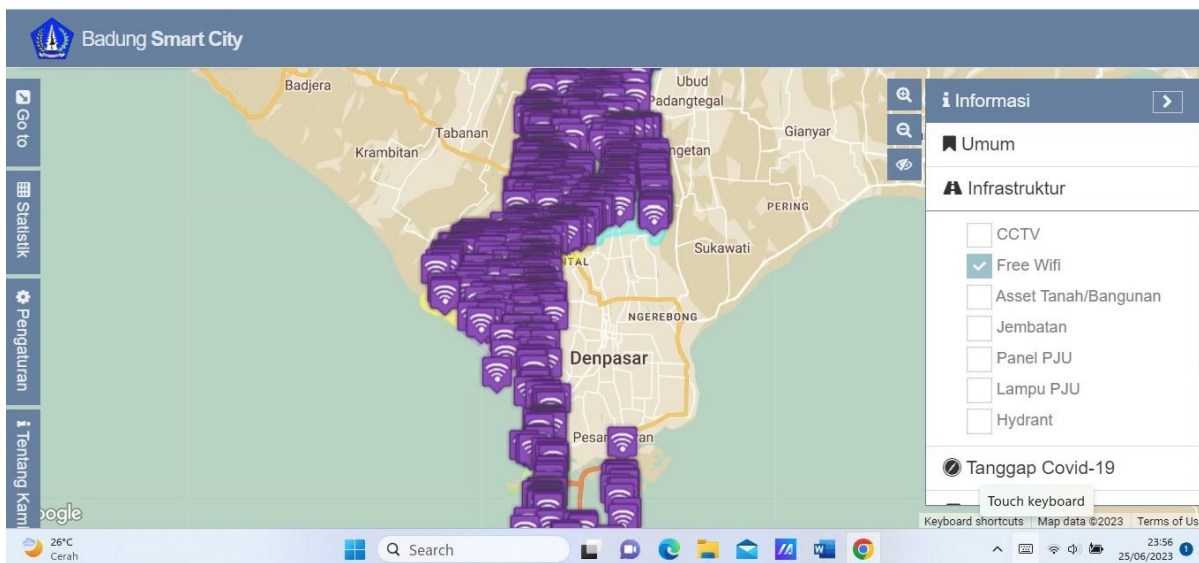


Picture 4.3: Display of the District Boundary Field

Source: <https://map.badungkab.go.id/>

Then the Infrastructure category which consists of: CCTV, Free Wifi, Land/Building Assets, Bridges, PJU Panels, PJU Lights and Hydrants. The Covid-19 Response Category, consists of Spraying Disinfectants and ODP & PDP Situation Monitoring. There are quite a number of emerging sub-sectors in the Tourism category such as Pokdarwis, Tourist Attractions, Tourism Villages, Special Interest

Tourism, Calendar of Events for Tourism Accommodation and Creative Economy. The Agriculture and Plantation Category only displays data on subak. The Fisheries and Livestock category features chicken farms and fishing groups. The Free Wifi Infrastructure category as an example, can be seen in the following figure.



Picture 4.4: Free WiFi Information Infrastructure Category

Source: <https://map.badungkab.go.id/>

The picture above shows the location of free wifi available, for example Free WiFi in SDN 1 Tanjung Benoa, and so on. Likewise, for example, if you click on the Petang District feature, it will display an image of the area of 7 villages in the Petang District area.

Furthermore, the Traffic category consists of:

- 1) ATCS
- 2) Road Traffic
- 3) Traffic signs
- 4) Terminal/Stop

In the Economy category displays data about:

- 1) Cooperative
- 2) LPD (Village Credit Institutions)
- 3) Bank
- 4) UKM (Small and Medium Enterprises)
- 5) Save Other Loans
- 6) Traditional/Modern Market
- 7) Business entity

In the Education category displays:

- 1) SD (Elementary School)
- 2) SMP (Junior High School)
- 3) SMA (Senior High School)
- 4) SMK (Vocational High School)
- 5) TK/PAUD (Kindergarten/Pre-School)
- 6) SLB (Special Education)
- 7) Course/Private

The Social Category only displays data on poor families. Furthermore, in the Health category, it includes data on:

- 1) Hospital
- 2) Public health center
- 3) Doctor's Clinic/Practice
- 4) Pharmacy

Then in the Arts and Culture category includes data on:

- 1) *Banjar Adat*
- 2) *Sulinggih*
- 3) Lontar Manuscript
- 4) Arts Group
- 5) *Sekaa Shanti*
- 6) *Sekaa Teruna*
- 7) *Pecalang*

The place of worship category displays data on mosques or prayer rooms, monasteries, churches and temples. The last category, namely setra, displays setra or cemeteries and crematoriums.

4.2 Analysis of eGovernance Program “Badung Smart City”

Adaptation and integration variables are needed as prerequisites for achieving program effectiveness. From the aspect of adaptation, changing the nature of services from manual to electronic services is one of the government's efforts to create a smart city. However, the fact shows that not all people can accept change quickly and are aware of it, the Badung district government opened multi-channel services, namely online as well as offline. Informants revealed that the community felt satisfied and greatly helped by the existence of online public services even though the obstacle they were still experiencing was the existence of an error system if too many people accessed electronic services.

From the aspect of integration, the Badung Regency Government directly conveys information related to online services to the public who come to Disdukcapil. The information provided can be in the form of procedures for using online web services. The Office also works with village and sub-district officials to convey related information. This effort seems only normative. Indirect communication is carried out by conveying information through social media, websites and also whats-app groups to upload important information related to the implementation of electronic services, so that people can see the information. This effort needs to be supported by a community satisfaction survey.

From an e-Governance perspective, BSC is expected to be able to guarantee better public services and have intelligent

management by implementing information and communication technology (ICT) in city development and management. So that with the advancement of ICT in development it can improve the quality of life of its people. Apart from being able to provide faster government services, BSC is expected to be able to encourage the active role and participation of the community in managing the city so that there is a dynamic and close interaction between the public and public service providers. In the digital era as it is today, government transformation is becoming increasingly important and must continue to be carried out so that it can adapt to technological developments and an increasingly sophisticated society. One of the smart city elements related to e-Governance is a governance concept based on information and communication technology (ICT) and includes regional governance that prioritizes community participation and empowerment.

The BSC program is displayed online with the site address map.badungkab.go.id. The site presents information features, which are divided into 14 categories. The BSC map does not clearly and in detail show active community online participation and community empowerment (civic engaging) such as the provision of a Broadband Learning Center for the community, or features for public discussion facilitated by existing community information groups (KIM).

Indeed, there are efforts by the government together with the community to provide free wifi, but the number is still limited. For example, in the Bindu Traditional Village, 52 houses were provided, especially for the benefit of students and Micro, Small and Medium Enterprises (MSMEs). the private sector, so progress has been relatively slow. Only in the Kuta area, the Badung Regency Government cooperates with the private sector, namely PT Biznet Networks so that this internet connection service is spread over 115 points in the Kuta area.

The results of the analysis also found that Badung district still lacks human resources with adequate ICT skills. The increased use of technology and data in BSC also means increasing potential cyber-security risks. The shortage of human resources can become a problem in the event of a system crash or outage. Therefore, governments must ensure that their systems are safe from cyber-attacks and comply with established security standards. Likewise, several obstacles were found in realizing BSC, such as: not all people have Android media in using electronic applications, not all people understand in carrying out electronic-based services, and there are system error disturbances when using these applications.

5. Conclusions and Suggestions

5.1 Conclusion

5.1.1. The Electronic-Based Government System (SPBE) in Badung Regency is directed to build Badung Smart City (BSC). To facilitate the implementation of the BSC, the Badung Regency Government Population and Civil Registration Office provides multi-channel services that are still being integrated. The Population and Civil Registration Office has 41 types of services. All these types of services

are integrated in the Aku Wanted application (Self-Register and Self-Print Population Administration). I'm Wanted is an innovation in population administration services carried out with website-based electronic media.

5.1.2. Implementation of the Badung Smart City Program (PBS) is indicated by the BSC application with a website address at <https://map.badungkab.go.id/>. On the site, the BSC maps data on 14 categories which include General, Infrastructure, Covid-19 Response, Tourism, Agriculture and Plantation, Fisheries and Livestock, Traffic, Economy, Education, Social, Health, Arts and Culture, Places of Worship, Setra and Graves. The information displayed is in the form of an image on a map with associated text. The information displayed by the BSC application program is more of an image and mapping data, and minimal narration.

5.1.3 From the substances that characterize e-Governance, namely e-Public Participation and Community Empowerment (Civic Engaging), it is not clear what actions and impacts they will have. The transformation process from electronic services (e-Government) to the realization of governance processes (e-Governance) also has not mapped the direction of the transformation.

5.2 Suggestions

5.2.1. To anticipate the occurrence of electronic system errors, the government must ensure that they have an emergency plan and sufficient backup systems to overcome these problems

5.2.2 It is necessary to schedule a system evaluation and system improvements in order to prevent system errors from occurring when the community is providing services

5.2.3 It is necessary to synergize with related stake holders, so that collaboration is realized to realize better SPBE management towards the realization of e-Governance.

References

- [1] Abdurrozzaq Hasibuan, Oris Krianto Sulaiman, 2019. Smart city, konsep kota cerdas sebagai alternatif penyelesaian masalah perkotaan kabupaten/kota, di kota-kota besar provinsi sumatera utara, Buletin Utama Teknik Vol. 14, No. 2.
- [2] Basri, Seta, E-Government dan demokrasi dalam Potret Indonesia, i-book, posting 07 Agustus 2009.
- [3] Bhatnagar, Subhash. 2004. Electronic Government: From Vision to Implementation: A Practical Guide With Case Study. Sage Publications. Panchsheel Enclave New Delhi
- [4] Budiman Rusli, dkk. 2020. Teori Reformasi Administrasi. Universitas Terbuka 2020.
- [5] Caragliu, A., Del Bo, C. and Nijkamp, P. (2009) Smart Cities in Europe. Proceedings of the 3rd Central European Conference in Regional Science—CERS 2009, Kosice, 7-9 October
- [6] Denzin, Norman K. and Yvona S. Lincoln, 1987. Handbook of Qualitative Research. Terjemahan oleh Dariyanto, dkk. Pustaka Pelajar. Yogyakarta.
- [7] Fang, Zhiyuan. 2002. "E-Government in Digital Era: Concept, Practice, and Development", International Journal of The Computer, The Internet and Management" 10 (2):1-22
- [8] Inasari Widiyastuti, Daru Nupikso, Novian Anata Putra, Vieka Aprilya Intanny, 2021. Smart sustainable city framework: usulan model kota cerdas yang berkelanjutan dan integrative, JURNAL PIKOM (Penelitian Komunikasi dan Pembangunan), Vol. 22 No.1.
- [9] Jimenez, Benedict S., Karen Mossberger dan Yonghong Wu. 2012 (Chapter 13) dalam Manoharan, Aroon dan Marc Holzer 2012. "E-Governance and Civic Engagement Factors and Determinants of e-Democracy" Published in the United States of America by Information Science Reference (an imprint of IGI Global)
- [10] Khalil, Ghazzawi. 2014. "Would E-Government Promote e-Governance? A Proposed Restructure to Promote Democracy and Participation of Public in the Decision Making Processes for Environmental Policies" Journal of Administrative Sciences and Policy Studies 2 (1):1-20
- [11] Kim, Seang Tae, 2005. Towards a New Paradigm of E-Government: from Bureaucracy Model to Governance Model. Chapter 5th in Building e-Governance: Challenges and Opportunities for Democracy, Administration and Law, edited by Kim, Pan Suk and Whasun Jho. International Institute of Administrative Sciences, Belgium National Computerization Agency. Korea:23-39
- [12] Lilik Antarini, I Made Yudhiantara, Dewa Ketut Suryawan, 2022. Collaborative Governance in Denpasar Mantap Kesehatan Masyarakat Program at The Health Department of Denpasar City Government, International Journal of Sciences and Research (IJSR)
- [13] Miles, A. Matthew B. Michael Huberman, Johnny Saldaña. 2014. Qualitative data analysis: a methods sourcebook, Arizona State University. — Third edition
- [14] Moleong, Lexy J. 1989. "Metodologi Penelitian Kualitatif". Cetakan 1, Remaja Rosdakarya. Bandung.
- [15] Mujibur Rahman Khairul Muluk, Rino Ardian Nugroho, 2020. Inovasi dan E-Governance, Universitas Terbuka: Jakarta.
- [16] Muliarto, H. 2015. Konsep Smart city Smart Mobility. Bandung: Institut Teknologi Bandung.
- [17] Mundy, Darren and Bandi Musa. 2010. "Towards a Framework for eGovernment Development in Nigeria" Electronic Journal of e-Government 8 (2): 148-161
- [18] Prastowo, Andi. 2011. Metode Penelitian Kualitatif Dalam Perspektif Rancangan Penelitian. Ar-Ruzz Media. Yogyakarta.
- [19] Riska Indayana, 2021. (<https://www.kompasiana.com/riskaindayana0800/61474d7c0101903346072412/badung-salah-satu-kabupaten-perintis-smart-city-di-indonesia>)
- [20] Saraju P.M., 2016. Everything You Wanted to Know About Smart Cities, IEEE Consumer Electronics Magazine, 5(3):60-70
- [21] Strees, R. M. (1990). *Efektivitas Organisasi*. Jakarta: Airlangga
- [22] Suyudi, T. 2021. Kabupaten Badung Jadi Percontohan Smart City di Tanah Air,

(<https://www.itworks.id/38709/kabupaten-badung-jadi-percontohan-smart-city-di-tanah-air.html>)

- [23] Yudhiantara, I Made and Abdul Hakim, and M.R. Khairul Muluk, and Irwan Noor, (2019). Transformasi e-Government Menuju e-Governance Dalam Proses Pelayanan Publik Pada Media Centre Pemerintahan Kota Surabaya , Doctor Thesis, , Program Doktor Ilmu Administrasi Minat Ilmu Administrasi Publik, Fakultas Ilmu Administrasi Universitas Brawijaya Malang (<http://repository.ub.ac.id/id/eprint/188500/>)
- [24] -----, Wayan Sudemen,I Putu Sutarka. 2021. Building The Spirit of Governance in Realizing the Village SDGs in Bali Province, Indonesia, International Journal of Sciences and Research (IJSR).