

Analyse of Smart City Concept as Supporting the Government Information Disclosure

Case Study: Bandung Smart City

Ni Putu Nurwita Pratami Wijaya

Faculty of Business & Management, Widyatama University, Indonesia

Email: putu.nurwita@widyatama.ac.id

Abstract

Smart City is a concept for development, implementation, and implementation of technology that is applied to a region (especially urban) as a complex interaction between the various systems inside (Pratama, 2014). This concept became very hot topic in the community, especially for big cities in Indonesia, one of which is Bandung. Smart City concept was first proposed by the Mayor of Bandung Ridwan Kamil with multiple dimensions of one is Government (Smart Government). The ultimate goal is to better serve the public through the disclosure of information. Basically, according to Glenny (2008) said “*government communication* as one-way communication from the government to the delivery of information to the public”. This one-way communication that often lead to debate in which there will be no feedback from the community that creates an enormous amount of information that is not transparent. This paper was made with the aim of showing that through the concept of smart city with Smart Government dimension, can answer the problem in terms of the openness of government information. Paper is made by the method of in-depth description and discussion based on the existing literature.

Keywords: Smart City, Government Communication, Bandung Smart City.

1. Introduction

Today many problems faced by major cities around the world. The total population is increasingly crowded, uncontrolled traffic, pollution levels are getting worse and many more. These problems are spurring leader for each regional to seek a breakthrough in dealing with problems that occur in their area. Now, smart city is a solution for this problem. Smart City is a concept development, implementation, and implementation of technology that is applied to a region (especially urban) as a complex interaction between the various systems that exist in it (Pratama, 2014: 94). IBM (company's world-class enterprise) as the originator of the first smart city concept, this concept divides into six dimensions: smart economy, smart people, smart governance, smart mobility, smart environment, smart living..

Implementation of smart city, is now up in Indonesia. Major cities in Indonesia have started to apply the concept of smart city is Surabaya, Denpasar, Bandung, Cimahi, Manado, Jakarta, Yogyakarta (Pratama, 2014: 186). One city in Indonesia, which is currently being intensively put forward this concept is Bandung city. With the concept of "Bandung Juara", Ridwan Kamil have 24 work program, one of which is the "Bandung Smart City" program.

With a population of 2,394,873 inhabitants, various methods are used to organize the citizens. With the concept of Bandung Smart City, Ridwan Kamil divided into five major milestones there are:

- a) Infrastructure: This concept is intended to be able to access the Internet anywhere in Bandung.
- b) Smart Government: This concept intended all activities on technology-oriented government.
- c) Open Government: The concept is intended that all government services conducted openly and transparently
- d) Empowerment: This concept emphasizes the use of IT and the Internet in all aspects of society
- e) Technopolis: This concept explains the collaboration between academics, investors, and governments to use ICT to a better economy.

Through the five concepts begin to be implemented Bandung Smart City into several parts, namely: Government (Smart Government), Education (Smart Education), Transportation (Smart Transportation, Smart parking), Health (Health Smart), Energy (Smart Grid / Smart Energy) , Security (Smart Surveillance), Environment (Smart Environment), Community / Social (Smart Society, Smart Reporting, Bandung Passport), Finance (Smart Payment), Trading (Smart Commerce).

The goal of the development of Smart City concept is to connect, to monitor and control various resources that exist within the city effectively and efficiently in order to maximize service to the citizens. Various forms of existing services in the community, focused on the disclosure of information in the current era. The dimensions of smart city that is associated with it is smart government, which main purpose is to provide more transparency in the relationship between government and society. Currently, communication has an important function for the government, in order to build interaction with its citizens, the government must be transparent, serves the public, and responsive (Vos, 2006: 250). Glenny (2008) also said "government communication as one-way communication from the government to the delivery of information to the public". This is often a debate in which the current communication that occurs between the government and the public nature of communication in one direction so that there is no feedback from the public that led to a lack of transparency from the government. In this regard, smart city concept is now used as a way to answer these problems.

2. Problem Statement

Smart city concept have six dimensions is one solution to the problems of the metropolis. Problems often occur in conjunction between the government and the public is the disclosure of information, and it is contained within the dimensions of smart government. The problems are a staple of mind for Bandung as well as one of the cities that implement Smart City concept. It was stated in Bandung milestone, namely Smart Smart City Government and Open Government. Does the existence of this concept can help the disclosure of government information to the public? This will be discussed in this paper through in-depth analysis based on existing literature.

3. Theoretical Framework

a. Smart City

Smart City is a concept development, implementation, and implementation of technology that is applied to an area (especially urban) as a complex interaction between the various systems that exist in it (Pratt, 2014: 94). Smart City concept first proposed public by the world's major IT company is IBM.

Capdevila and Zarlenga (2015: 268) states the concept of Smart City has in common with some other concepts such as the concept of "intelligent city", "information city", "wired city", "knowledge city", and "digital city" which in essence this concept equally explains the use of ICT in urban environments. The purpose of smart city is to connect, monitor, and control a wide variety of resources that exist in the city effectively and efficiently in order to maximize service to the community.

Smart City concept is basically not only discuss the use of ICT for a better life, but also emphasizes on handling the problems that often occur in urban areas. According to Ricciardi (2015) Smart City is basically arise because of the need for addressing the problems that often occur in an urban environment such as air pollution, traffic congestion, resource management bad energy, difficulty in accessing public services, and so on. In order to deal with the problems that occur Smart city is divided into six main dimensions (Pratama, 2014: 96):

- Smart Economy: Dimensions Smart Economy consists of the process of innovation and competitiveness. Both of these are marginally useful to achieve an increase in the nation's economy better.
- Smart people: These dimensions are the criteria of the process of creativity in human beings and social capital. This dimension became the foundation for smart city.
- Smart Governance: Dimensions specializes in governance. Smart governance encompasses all the requirements, criteria and goals for the empowerment and participation from the community and the government together.
- Smart Mobility: This dimension specializing in the problems of transportation and mobility community. The goal is to create a public service for transport and better mobility and removing common issues in transport such as traffic, traffic violations, and others.
- Smart Environment: Dimension aims to create smart environments. In order to meet these objectives while the criteria in this dimension is continuity and resource management better. This dimension is divided into three kinds: VCE includes all device may computers that support smart environment, Physical Environment includes all mobile devices and computing complements the

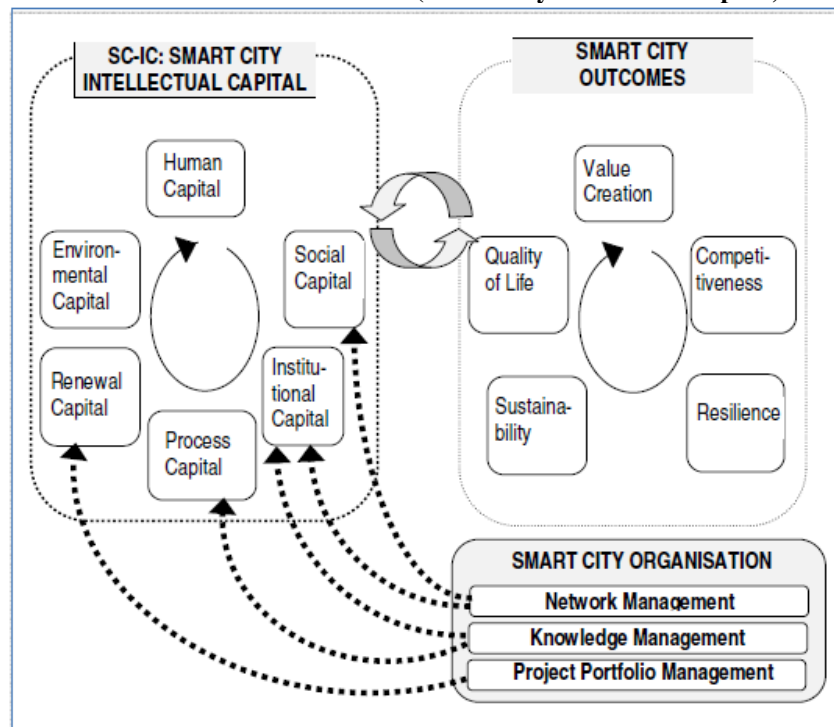
smart environment, and the Human Environment includes all the human environment into the user up to the developer of the software and computer hardware

- Smart Living: These dimensions are the requirements, criteria and objectives for the management of quality of life and culture in order to become better. Smart living consists of three parts: educational facilities are inadequate, provision of facilities, infrastructure, and information related to the tourism potential of the area with good and attractive.

Framework Smartcity

Based on research conducted by Ricciardi (2015), to support the smart city is also the capital needed intelligence from the people in it. For that the research results created a framework that includes smart city and the relationship between intellectual capital

Gambar 1 - Framework SC-IC(Smart City-Intellectual Capital)



Sumber: Ricciardi (2015)

Based on the framework can be described as follows:

- Each entity in the smart city is seen as a new concept of knowledge-based, network-oriented organization, which in many cases need to be managed jointly by people from different traditional organizations, such as public administration, universities, public transport companies, etc.
- Type network-based organization project should be the centerpiece of a new stream of management studies, to investigate the possible business models and organization design can be adopted for the organization of smart cities;
- Smart City requires a certain development, including in network management, knowledge management, and project portfolio management
- Competition, sustainability, durability and quality of life and the creation of a value to be regarded as the ultimate goal of a smart city;
- A peculiarity of the new organizational form is that it can achieve its objectives only by leveraging knowledge flows far beyond the boundaries of the organization; in fact, the city systems and sub-systems, such as transportation, health care, security, etc., must be considered the typical rate study analyzes the smart city management.

- f. A system of cities should be defined as "intelligent" such as utilizing the potential knowledge to optimize the balance between short-term objectives / outcomes, such as economic performance and competitiveness, and long-term objectives / outcomes, such as durability, sustainability and quality of life;
- g. human capital, social capital, Institutional capital, process capital, capital renewal and capital environment should be seen as the basis for the success of smart city

b. Government Communication

Government Communication understood as a concept that refers to public information, public communication or administration or government public relations (Glenny, 2008: 155). In a lot of discussion of government communication is defined as one-way flow of information with a strong focus on the mass media. Based on research conducted Turnbull (2007) in Glenny (2008: 156) regarding the Government Communication, the result is that the government's role in the Government Communication workmanship exceeds the administrative tasks which comprises several dimensions:

- Propaganda and political marketing
- Economic Promotion
- Program the delivery of information about rights and obligations
- Persuasion Behavior
- Approval (through community consultation)

By Vos (2006) outlines the Government Communication understanding into the following framework:

Figure 2 - Government Communication Model

Corporate communication	Policy communication	Organ.-bound communication
Transparency		
Accessibility		
Publicity via the media		
Responsivity		
Interactive policy		
Communication policy		
Effectivity and efficiency		

Source: Vos (2006)

Government Communication can be divided into three parts:

1. Corporate Communication is communication, who presented the organization as a whole
2. Policy Communication is divided into four parts:
 - Communication regarding Policy items
 - Communication as a policy
 - Communication for policy
 - Communication in policy
3. Organization-Bound Communication is defined as the communication that helps in the process of internal and government organizations focused on sustainability.

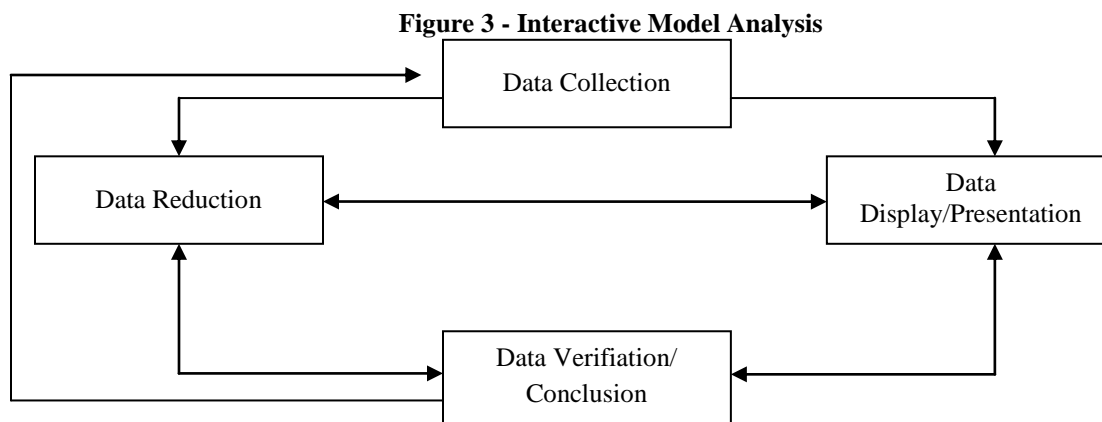
Government Communication is divided into seven dimensions:

1. Transparency means that the information conveyed to the public is transparent
2. Accessibility means that information can be accessed anywhere and anytime

3. Publicity via the media, which means that the delivery of information or publications should also involve the media in order to openness
4. Responsiveness which means that the information in the public service should be responsive
5. Interactive Policy which means that in the delivery of policies should also be conveyed interactively
6. Communication Policy, which means that the government is expected to remain communication refers to policy of communication
7. Effectiveness and efficiency, which means that in every delivery of information in the government communication must refer to communication effectively and efficiently

4. Research Methods

Paper is made using descriptive method with qualitative approach. Where analysis is performed to see how the smart city concept can assist in the disclosure of government information to the public with a case study in the city of Bandung. This study used secondary data obtained from the literature that exists. Data were analyzed using the interactive model analysis (Miles and Huberman, 1984) which can be illustrated as shown below:



Source : Miles and Huberman, 1984

This image describes the analysis model proposed by Miles and Huberman (1984), which is described after the data collection process is done with the data processed through three stages, namely the selection of data, exposure data, and the data verification process in order to draw conclusions.

5. Result and Discussion

Bandung Smart City Concept

The concept of Smart City Bandung was stated by the Mayor of Bandung Ridwan Kamil in its work program to Bandung Champion. The main objective of Bandung Champion made the work program is to connect, control, and oversees a wide range of existing resources effectively and efficiently to maximize service to the public. In accordance with the concept of Smart City which has been almost universally understood and consists of six dimensions, Bandung Smart City concept which has been running up to now can be described as follows:

- Government (Smart Government)
- Education (Smart Education)
- Transportation (Smart Transportation, Smart parking)
- Health (Health Smart)
- Energy (Smart Grid/ Smart Energy)
- Security (Smart Surveillance)
- Environment (Smart Environment)
- Community/Social (Smart Society, Smart Reporting, Bandung Passport)
- Finance (Smart Payment)
- Trading (Smart Commerce).

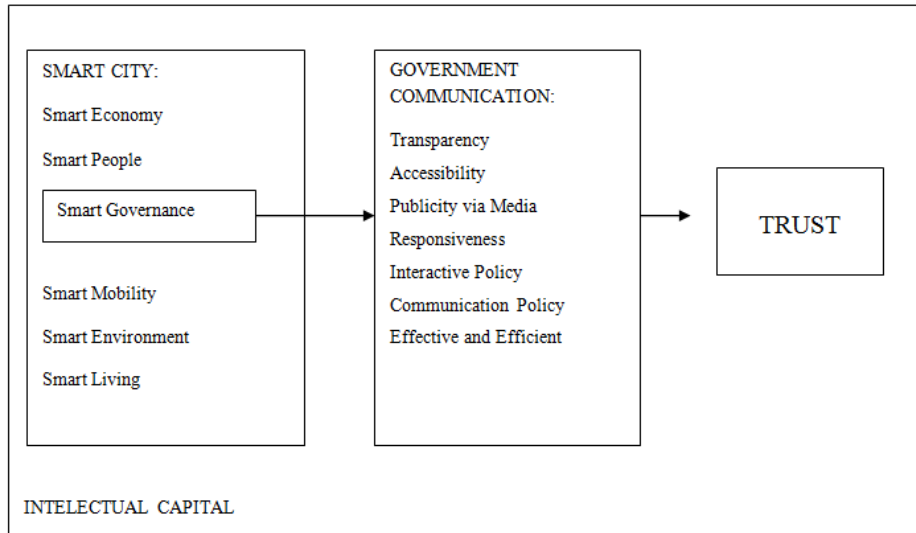
Of all the programs that have been issued while the current priority is smart government run program. Based on the statement from the mayor of Bandung main goal is to provide more services to the community. Smart Government dimension was implemented with two working program: open communication and open government. This is description of each program:

- Open Communication is a program that is issued by the government of Bandung in order to create a Smart City Concept disclosure of information to the public. The program is implemented by creating an account of government in social media. This is done because at the moment many of Bandung people are using social media, for it to create an account on social media is expected to be closer to the citizen with government
- Open Government is a program that is issued by the government of Bandung in the Smart City Concept in order to create transparency to the public. The program was created background of distrust in the government with regard to the budget. Implementation of this program is the city budget online. It is intended to show the public that there is transparency in government.

Based on case studies conducted in Bandung Smart City, it can be seen that the concept of Smart City is one of the programs in favor of the disclosure of information by the government. This can be seen with the dimensions of Smart Governance. In the implementation of many programs that can be made through this dimension with the ultimate goal to bring the relationship between government and society.

If you look at the smart city concept is basically the main capital required is the readiness of the community in the city. Readiness is meant is the intellectual capital. Intellectual Capital which became basic capital is indispensable to the success of smart city. The capital required to implement the entire dimension of the smart city. In association with government communication, the concept is very helpful in supporting the disclosure of government information to the public. Disclosure of this information, will foster a sense of public confidence in the government's primary goal to government communication. Results from this study was formulated into the following image:

Figure 4 – Relation of Smart City with Government Communication



Source: Author

6. Acknowledgement

Authors are very grateful to the government of the city of Bandung for all openness of information. And also to all researchers in the field of smart city on sharing knowledge for the development of this research

7. Conclusion, Limitation and Recommendations

a. Conclusion

Smart City is indeed a warm conversation in the world. Due to the current main problems that occur in the world's urban areas basically have in common. The smart city concept is divided into six-dimension, one of all is Smart Governance. The dimension function is to promoting better arrangement in the government in providing services to the public.

Based on the research that has been carried out it was concluded that the concept of smart city with one of the dimensions of smart governance has managed to provide disclosure to the public. Based on case studies conducted in Bandung, smart governance dimension is intended to provide disclosure to the public of course in terms of service. Program run is open communication and open government. With the disclosure of the information provided can give trust of the public to government.

b. Recommendations

Based on the studies that have been conducted in Bandung then while that can be suggested is as good as any concept created by the leadership of the public still have to prepare readiness in this regard is the Intellectual Capital. This is a major success of the concept of smart capital city with any dimension in it.

Recommendations writer for subsequent research is a model obtained from this study can be used as a basis to examine the success of the program smart city of Bandung with dimensions of smart governance.

References

- Budiman, Yudha Arif. (2014). *"Analisis dan Perancangan Sistem Social e-learning untuk mendukung Program Bandung Smart City"*. Bandung ; Universitas Telkom.
- Capdevila, Ignasi & Zarlenga, Matias. (2015). "Smart City or Smart Citizens? The Barcelona Case". *Journal of Strategy and Management*, Vol.8 Iss 3 pp.266-282
- Glenny, Leanne. (2008). *"Perspectives of Communication in the Australian Public Sector"*. *Journal of Communication Management*, Vol.12 Iss 2 pp.152-168
- Miles, M. B. and Huberman, A. M. (1984). *Qualitative Data Analysis: A Sourcebook of New Methods*. London : Sage Publications.
- Pratama, Putu. (2014). *"Smart City beserta Cloud Computing dan Teknologi-teknologi Pendukung Lainnya"*. Bandung: Informatika Bandung
- Ricciardi, Renata. (2015). *"Smart City Intellectual Capital: An Emerging View of Territorial Systems Innovation Management"*. *Journal of Intellectual Capital*, Vol. 16 Iss 4 pp
- Vos, Marita. (2006). *"Setting the Research Agenda for Governmental Communication"*. *Journal of Communication Management*, Vol.10 Iss 3 pp.250-258



CV AUTHORS

Name	Ni Putu Nurwita Pratami Wijaya, S.M.B, M.M
Email	putu.nurwita@widyatama.ac.id
Background Education	Bachelor degree from Institute Management Telkom, Bandung – Indonesia Master degree from Telkom University, Bandung - Indonesia
Publication	<ol style="list-style-type: none">1. Acceptance Level Measurement Information Systems Knowledge Management Batik Method Using UTAUT2 Case Study: Student Telkom Institute of Management (Konferensi Nasional Sistem Informasi – Makasar 2014)2. The design of the study: "the adoption of the use of e-commerce technology in SMEs Bandung using models UTAUT (Seminar Nasional; Strategi Indonesia Kreatif – Bandung 2015)
Research Interest	Management Informatics, Digital Marketing, Technopreneurship