



**Do people support the
smart city program?
Measuring public support for the
smart city program**

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Table of Contents

<i>List of Figures and Tables</i>	3
<i>Preface</i>	4
1. Introduction	5
1.1 The Smart City in The Developing World	5
1.2. Scientific and Societal Relevance	9
1.3. Smart City in Bandung	10
2. Theoretical Framework	12
2.1. Public Support	12
2.2. Smart City	14
2.3. Public Support and Smart City	17
2.4 Theory: In Sum	20
3. Research Methods	21
3.1. Concept Operationalization	21
3.2. Research Design	27
3.3. Data Quality Check	30
3.4. Data Analysis	30
4. Limitations	31
5. Reliability	32
5.1. Public Support	32
5.2. Transparent Government	33
5.3. Participation	33
5.4. Political Branding	34
6. Population and Sample	35
7. Findings	38
8. Discussion	50
9. Conclusion	51
10. Reflection	53
11. Suggestion for further Research	54
Bibliography	56

Figures

2.1 Model of Hypotheses	21
6.1. Age of the respondents	37
6.2. Respondent's gender	38
6.3. Population's gender	38
7.1. Factor Analysis for H1	40
7.2. Frequency table of variable for H1	40
7.3 Correlation Analysis for H1	41
7.4 Regression Analysis for H1	42
7.5. Factor Analysis for H2	43
7.6. Frequency table of variable for H2	44
7.7 Correlation Analysis for H2	45
7.8 The 1 st policy priority	46
7.9. Factor Analysis for H4	47
7.10 Regression Analysis for H4	47
7.11 Correlation Analysis for H4	47
7.12. Frequency table of variable for H4	49
7.13. Frequency table of variable for H4	49

Tables

3.1 Operationalization Concept of Public Support	22
3.2. Operationalization Concept of Transparent Government	24
3.3. Operationalization Concept of Participation	25
3.4. Operationalization Concept of Priority	26
3.5. Operationalization Concept of Political Branding	27
6.1. The population of Bandung	36

Preface

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Above all, this is not the end of my journey. This is the start, where something bigger will happen in my future. See you when I see you!

Abstract

Within the context of innovative governance, policies aim to deliver an effective and efficient public service. One such innovation program is the 'smart city' program. This is where municipalities use technology in order to maximize a city's public services. Smart city programs can also improve the quality of life of a city's citizens. These programs also help densely populated cities in developing countries to make the municipality more effective and efficient. Recent studies focussing on the smart city have investigated the infrastructure of the city, developed technology for the city, and evaluated the smart city. Studies examining public support for smart city programs, however, have been limited. Although they have become examples of modern policy, several questions can nevertheless be asked: is there public support for these programs? Do people perceive any benefits of a smart city? Do people really feel that a 'smart city' is a priority? Therefore, the proposed study aims to measure public support for the smart city program. Furthermore, studies about implementing a smart city in the developing world are still limited. Scholars have focussed mainly on the smart city in developed countries. Studying the smart city in the developing world may lead to different results from those of developed countries. This study is also expected to bring more insight into the smart city by looking at a developing country. In this study, Bandung, a city in Indonesia, was selected as a case. Despite the benefits that a smart city may bring, there are problems in the developing world. Common problems that arise in developing countries, such as population density, low education, and social-economic problems as well as the political situation, may also be happening in Bandung. Therefore, the study looks at the connection between public support and the smart city by taking these problems into account.

1. Introduction

1.1 The Smart City in the Developing World

In November 2015, Ridwan Kamil, the mayor of Bandung announced, via his Instagram account, that Bandung had been selected as a finalist in the World Smart City Award 2015 (Novriansyah, 2015). This news indicated that Bandung, a city in West Java,

Indonesia, would be competing for the award with 6 other cities in the world. With the slogan “Connected Citizens”, Bandung encouraged people to actively care about developments in their city (Novriansyah, 2015). People could monitor what was going on in the city. Although in the end Bandung did not win the award (Smart City World Congress, 2015), this achievement shows that Indonesian people were informed about the implementation of the smart city.

The smart city allows a municipality to deliver services to its residents more effectively and more efficiently. The implementation of a smart city is expected to solve many problems relating to various fields, e.g. social, economic, and environmental (European Parliament, 2014). In other words, people should perceive many benefits as a result of the implementation of a smart city. In a long term, a smart city can improve people’s quality of life (Rodríguez-Bolívar, 2015). The example of Bandung also indicates that the government in Indonesia is trying to improve their service delivery to its residents. However, their efforts may face challenges due to the country’s enormous population.

Due to their large populations, megacities tend to have more complex problems. These cities are mainly located in the developing world. Therefore, the implementation of a smart city in these places faces challenges. In a developing country, a smart city might not be used maximally because not many people know about it. Furthermore, residents may not support the smart city as a government program.

The high population density (a population of more than 10 million) in several cities across developing countries (for example, those in Asia) has resulted in such cities being referred to as megacities. These megacities have more complex and dynamic problems spanning social issues, health care, the economy, and environmental issues such as climate change (see for instance Sorman 2010; Islam, 2012; Qiu, 2012; or Blum, 2015). Thus, citizens’ quality of life may also be uncertain.

In the developing world, there is more income inequality between countries (World Bank, 2013). The World Bank classifies countries which have a per capita income of around \$37,665 (World Bank, 2013). Below that figure are the developing countries which only own 20% of the world’s income (World Bank, 2013). Additionally,

developing countries also face challenges in their economic growth, which contributes to basic conditions relating to e.g. health care, education, fertility, and the infrastructure (Easterly, 2001). This means that the governments of developing countries have to focus on policies that improve health care, education, and the infrastructure. These policies can be described as relating to the basic needs of people in developing countries.

Apart from the inability of a government to perform well, support from people in developing countries can also be influenced by complicated policy, for instance, when modern technology is used. As citizens are less well-educated, there is a chance that not everybody understands policy that makes use of modern technology. Hence, it is interesting to see how people support policy that makes use of modern technology.

Moreover, in a developing country like Indonesia, the smart city program does not seem to be a priority for the government. In all probability, the public does not see the smart city as a priority either. Baltussen (2006) argues that, instead, the public in developing countries prioritize the improvement of health services. Moreover, in a developing country like Indonesia, the highest priority for public spending is on education (see for instance Lanjouw et al., 2001 and Del Granado et al., 2007). This means that Indonesian people expect the government to invest greatly in education and health services, rather than in building a smart city.

Additionally, the current Indonesian government is pushing to build many infrastructure projects (Sarna & Sumarwan, 2017), i.e., projects that should promote economic growth throughout the country. Investments in the infrastructure amount to about \$350 billion (Sarna & Sumarwan, 2017). Due to this program, Indonesian people are more likely to expect the government to build or repair roads and bridges. This also means that not so many people would expect the smart city innovation.

As mentioned above, the implementation of a smart city is expected to result in more effective and more efficient government. In addition, the use of technology for a smart city can increase public participation (Rodríguez-Bolívar, 2015). Technology can make it easier for people to interact with their municipality. With improved interaction, participation will increase. People can interact with the municipality in a variety of ways, for instance by using the internet, telephones, or the post. This interaction can

help people when making complaints or in relation to other input relating to the government.

Studying smart cities is far from new. Studies have been conducted about the smart city focusing on building infrastructures (see for instance Anttiroiko, 2015; Ojo et al., 2015; Thorne & Griffiths, 2014), evaluating the smart city (Merli & Bonollo, 2014 and Wall et al., 2015) and bringing more innovation into government processes (di Bella et al., 2015 and David et al., 2015). Although the impact of a smart city can increase public participation, this proposed study examines to what extent the government has been able to gain public support for smart city policies. Studies about smart city programs in developing countries have been limited. This study builds on previous research and contributes to current debates by collecting data in one developing country: Indonesia.

In the Indonesian democracy, people tend to believe that certain successful policies are little more than a promotional tool for politicians. A recent political phenomenon shows that political candidates tend to use media as political branding (Ahmad & Popa, 2014). A campaign, especially for incumbent candidates, helps promote their policy as a political product (Ahmad & Popa, 2014). As a result, people are aware that the policy is no more than a promotional tool in relation to the future. It is highly likely that Indonesian citizens perceive the smart city program in this way.

People would like to support the smart city because it allows them to participate more in the governance process. Research in India, for example, demonstrates that it has increased public participation in decision-making (Innovation Centre Denmark, 2015). In Bandung, Indonesia, the mayor has made use of social media (Warsia, 2014), which subsequently increased public participation.

Consequently, smart city programs are not likely to be easily accepted by citizens of a developing country, particularly Indonesia. The research proposed here thus aims to measure public support for smart city programs.

To do this, the proposed study seeks to address the following question:

To what extent do people support smart city policies in Bandung and how should we interpret this level of support?

Answering this question would give academia many insights about the smart city in the developing world, specifically in Bandung. The next section discusses the relevance of this study.

1.2 Scientific and Societal Relevance

Linking innovation to public administration is becoming more popular due to the increased amount of technology used in the governance process. The study of smart cities is but one example of developments in the e-government field. Measuring public support for smart city programs would provide insight into public administration studies, particularly in e-government.

This study aims to achieve results which show that the smart city program can be both supported and contested from the perspective of citizens. Their perspective may be due to citizens' difficulties in understanding how to use the technology, or it may be that they did not really regard the smart city as a priority. After obtaining results on how much public support exists for the smart city, the results of this study will allow the municipality to make possible improvements in the smart city program. This study also looks at how citizens and the municipality interact.

Research into the smart city has been done in many countries, especially in Europe. However, though much is being written about smart cities, we actually know very little about smart cities in the developing world. This is the key contribution of this paper, to obtain more insight into smart cities in the non-western world.

As one of the larger cities in Indonesia, Bandung faces a potential problem due to its significant population growth. Bandung is the capital of the West Java province, where the largest part of the population of Indonesia live. Being at the centre of West Java and due to its location as the nearest big city to Jakarta, Bandung attracts many people as a place to live. This requires that the municipality of Bandung takes the liveable city program into account. It can be inferred that, due to the increasing number of inhabitants, Bandung needs to establish beneficial policies to make the city more inhabitable for its people.

The local government in Bandung is investing more money in smart city

technology because they think it can make a contribution to the city. At the same time it is crucial for them to gain people's support for this policy. This study will provide them with insight into how they can encourage greater public support.

Studying public support for smart city programs within Indonesia, the third largest democratic country in the world, will contribute to the academic field of public administration. In addition, the fact that Indonesia's population will significantly increase within the next 15 years, because of the demographic bonus, means this study will contribute further to public administration studies.

In addition, this study will bring new insight for society. Whether there is public support or not regarding the smart city, the results of the study will improve awareness of the municipality of Bandung. The government will know whether or not they have promoted the smart city sufficiently. Also, they will know what improvements they should make in their smart city programs.

1.3 Smart City in Bandung

“Designing Smarter Bandung, Creating Happier Citizens”. That was the slogan of the municipality of Bandung in implementing the smart city. This city is home to 2.5 million live. The smart city programs aim at happier citizens. By utilizing technology, the municipality hopes that service delivery will be easier, faster, and cheaper. As a result the residents will be happier with the services provided by the municipality. The municipality of Bandung believes that many things can be done using the internet, while simultaneously reducing costs and time spent.

In implementing the smart city, Bandung has introduced several programs. First, the infrastructure. This program aims to provide internet access for Bandung's residents. Thus, the municipality has built about 5,000 wifi access points in such public spaces as schools, parks, and mosques (Kamil R. , 2016). By doing so, the municipality expects to increase the enjoyment of people who visit public spaces in Bandung. Second, the municipality of Bandung aims to realize a more open government. To do this, the local government has made the activities of Bandung municipality open to the public (Kamil R. , 2016). For instance, they have created a *Youtube* channel where people can see important meetings or events about Bandung. By using *Youtube*, people will be able

to follow what the mayor has been doing to achieve his goals. Moreover, the municipality also created a website where people can open about 409 documents about the population, the economy, education, health care, tourism, the environment, and the infrastructure (Kamil R. , 2016). All these data can be accessed by all residents by using the municipality's website. By opening the data, people can access, for instance, a document on planning and budgeting. Thus, people will know how much of their tax contributions the government has spent on certain programs.

Third, the municipality of Bandung has initiated a smart government. This program was implemented by introducing technology-oriented government. The online system allows people to get services easier and more cheaply. Services that can be organised using the online system are school admission, smart health care, tax-paying, obtaining a birth certificate or trade business license, etc (Kamil R. , 2015). Additionally, the municipality has introduced many applications that can help the residents of Bandung. Examples of these applications are the *Bandung Panic Button* which can prevent criminal action and keep people safe on the streets, and *Rute Angkot Bandung* (public transportation route) which is useful for people when using public transportation.

Fourth is citizen engagement. The municipality of Bandung wants to involve its residents in running the city. Thus, the people of Bandung now can lodge complaints using the online system. To support this, the municipality created an application in which people can send their complaints (Kamil R. , 2015). Moreover, the smart city programs have also obliged every department of the municipality to create a social media account. This step was very important in creating more interaction between the municipality and its residents.

Fifth, the municipality wants to create the Bandung Teknopolis (Kamil R. , 2016). This is part of a big dream of the government to move the city centre to a new area. The old area will be transformed into a location for tourism, arts, culture, and academic centres, and the new city centre will be a centre of innovative government (Kamil R. , 2015). Although a lot still has to be done for this step, many problems in the centre of Bandung will be reduced when the program is finished. Traffic problems, for instance, would be solved by this program. As a result, it will increase people's enjoyment when

visiting Bandung and tourism activities will increase.

All in all, Bandung has created five steps in implementing the smart city. The programs were designed to create the infrastructure for easier internet access, open up governmental data to the public, create governance applications, increase public interaction, and realize the dream of Bandung teknopolis. The objective of the programs is to make people happier and make them enjoy their time spent living in Bandung. As a result, these programs will improve people's quality of life.

The above describes the Bandung smart programs, while the following sections present a theoretical framework in which definitions and some theoretical issues in relation to public support and the smart city are discussed. This then allows a conceptual model of the relationships between these concepts to be discussed.

2. Theoretical Framework

2.1 Public Support

There are many ways in which the public can support the government, including by giving financial support (Netzer, 1978 and Barone, 2016), through political actions such as voting in a referendum (Leous, 2012), or by providing the government with input for a particular policy (Boyte & Kari, 1996 and Wildavsky, 1979). Since the aim of giving input is to create a better and more responsive society, this study focuses on public support.

A more detailed concept of public support can use a framework applied in a political perspective. Easton (1975 as cited in Chierici, 2005) describes political support as: "...support [that] refers to the way in which a person orients himself to some objects through either his attitudes or his behaviour" (1975: 436). Support from the public can thus be influenced by their attitudes or behaviour. Some people have their own reasons for disagreeing with or disliking policies, while others will have an argument for supporting policies. One of the reasons for supporting policies is when people think that policies are very useful in their life. In other words, the public tends to support a policy if it provides them with benefits (Hicks, 2001). This shows that behaviour or attitudes that support policy depend on how the policy affects the life of citizens.

Moreover, a discussion about public support also relates to self-interest and political ideology (Jæger, 2006). Jæger (2006), gives the example that people who have an interest will manifest different attitudes in relation to a policy. That particular example was strongly related to financial benefits. People with different self-interests will respond differently; for example, people experiencing financial problems and who are financially dependent will be more likely to support public welfare policies compared to people who do not have the same financial experiences (Jæger, 2006). This leads to different attitudes between people about a given policy, where one group will be more likely to support the policy, while the other will be against it. The difference is due to whether people perceive benefits or not. Attitudes can influence how much confidence people have in the government.

In addition, public support also relates to political trust (Rudolph & Evans, 2005). People tend to support a government policy when they trust their government. Leuos (2012) describes that the public will support a policy if the policy gives both social and economic benefits, and the policy demonstrates the effectiveness of the government. As a result, people will trust the government when they perceive benefits from the policy. People who support the policy will trust the government. I would argue that, from a political perspective, confidence in the government can be divided into either confidence in the government as an organization, or confidence in a given political actor who initiated the policy. I think this confidence is very important for the government. If people trust the government as an organization, they are more likely to have positive expectations of future policy. Also, if people trust a specific political actor, they are more likely to vote for him/her in a future election.

According to the above, public support relates not only to financial help; instead it is also a political matter. Public support is influenced by self-interest, attitudes or behaviour. People are more likely to support policies when they have a personal interest in the matter; it will depend on how the policy affects their life. In addition, public support is also related to political trust. A policy will be supported when people have confidence in the government. Support also comes from political ideology. Political values and beliefs, for example, influence whether people support a policy or not.

One example of a policy that citizens may either support or reject is policy

regarding how the government should govern the city. It is important to investigate support for such a policy because people will react if the city in which they live is not comfortable. This is because the lives of people are likely to be influenced by policy made for the city. Hence, people will support policy about the city's governance if they perceive many benefits. Examples of benefits are easier and cheaper procedures for data and information, more transparent government, or increased public engagement with the government. These benefits can be perceived when a city implements smart city programs. Before going deeper into the concept of public support, however, the following section discusses smart city programs.

2.2 Smart City

First, we need to look at the definition of 'smart'. Some sources suggest that different concepts of 'smart' is often used interchangeably (Thorne & Griffiths, 2014). For example there are smart phones, smart televisions, smart cars and even smart villages (see for instance Ragupathi & Prabu, 2015; Rhiu, et.al, 2014; Yu, et.al, 2014; Shukla, 2016). Bolivar (2015) further gives the example that smart also relates to automatic routine functions that serve an individual. Bolivar also defines the 'smart city' as not only a city that provides automated services, but also as one that improves the efficiency, effectiveness and quality of life of its citizens (Rodríguez-Bolívar, 2015).

The definition of a smart city is, however, still debated among scholars. This is because there is no universally acknowledged specific definition of a smart city (Cocchia, 2014). However, according to Giffinger (2001 cited in Cocchia, 2014, p.31), "a Smart City is a city performing well, built on the 'smart' combination of endowments and activities of self-decisive, independent and aware citizens". This shows that a smart city has been developed to increase the municipality's awareness of its residents. People's awareness has become a requirement of a smart city. In addition, according to Hall (2012 cited in Cocchia, 2014, p.31),

[a] "Smart city is a city that monitors and integrates conditions of all of its critical infrastructures, including roads, bridges, tunnels, rails, subways, airports, seaports, *communications*, water, power, even major buildings, can better optimize its resources, plan its preventive

maintenance activities, and monitor security aspects while maximizing services to its citizens”.

This means that, apart from just being aware of its residents, the city has to provide them with impressive services. Good services can be provided by investing in infrastructures that increase the enjoyment of citizens and improve their quality of life.

The core aspect of a smart city is technology. The European parliament, for example, considers the use of information and communication technologies (ICTs) and data as tools for solving social, economic and environmental problems of cities (European Parliament, 2014). The use of technology in the city not only makes the infrastructure more automated, it also helps to analyse, monitor, and plan the city to improve citizens' quality of life (Rodríguez-Bolívar, 2015). The smart city, therefore, can help the municipality to become more effective and improve the quality of its services. By looking at the definition of Rodríguez-Bolívar (2005), the main benefit of a smart city that can be perceived by the people is more transparent government. People can easily find out what is going on in the city. The use of technology is maximized in order to give more access to data and information about services in relation to city governance. A more transparent government makes governance of services easier and cheaper. At this point people become happier and enjoy the time spent living in the city. Therefore, this increases citizens' quality of life.

To better understand the smart city, we need to look at its main elements. Scholars suggest that there are three central issues in a smart city (Meijer, Gil-Garcia, & Bolivar, 2015):

1. Smart depends on such conditions as the political system, geographical situation, and technological diffusion.
2. The governing process that requires innovative forms of governance. This is also related to government leadership, participative models of governance, and the collaborative structures needed to adopt smart city development.
3. Public value.

Furthermore, Meijer and Bolivar (2015) found that definitions of a smart city emphasize three aspects: smart technology, smart people, and smart collaboration; the

transformation of urban governance; and better outcomes and transparency as a legitimacy claim of smart city governance, thus also influencing economic gains and other public values. Apart from a more transparent government, the above explanations show that people also perceive benefits from increased public participation. Implementing a smart city improves collaboration between the government and its citizens. The utilization of technology, for instance, allows people to send their input regarding a government service. This can induce the government to improve the service.

In order to realize more transparent government and to increase public participation, the smart city program should have some core elements. Bolivar and Meijer (2015) explained the 6 elements of a smart city. These elements include:

- a. The use of Information and Communication Technologies (ICT's).
- b. External collaboration and participation.
- c. Internal coordination
- d. Decision-making process
- e. E-administration
- f. Outcomes

The 1st and 5th elements are very important in creating a more transparent government. By using ICT and electronic administration, the government makes their data and information accessible to the public. These data and information can, for instance, be put on the government's website. People can then easily access them and use them to be informed about or monitor the government. The other elements are very important in increasing people's participation. Good collaboration between the public and the government results in engagement between people and their government.

A more transparent government will increase public participation. This also becomes more possible when technology is utilized. "Public participation" encompasses a group of procedures designed to consult, involve, and inform the public to allow those affected by a decision to make an input in respect of that decision (Smith, 1983 cited in Rowe & Frewer, 2000). A smart city allows citizens more interaction with the municipality. Consequently, political participation in an election will also increase.

Based on the above concepts, we could also discuss the limitations of a smart city.

Firstly, a smart city focuses on technological use, which modernizes the city. Secondly, a smart city is about transforming the governance of a city. This depends on the political situation, leadership, and also on the relationship between the government and its citizens. Finally, implementing a smart city should aim to deliver clear and transparent public services to citizens. In addition to increased public satisfaction due to smart city implementation, it will also lead to economic gains. Effective governance will attract investors, and subsequently help a country's economic growth in the long-term.

2.3 Public Support and the Smart City

As discussed above, the public will participate in decision-making if they have an interest in a certain issue. Their interest could be because they will be affected by the policy either economically or socially. Policy in creating a smart city will very likely be embedded in public support (Negre & Rosenthal-Sabroux, 2014).

In a developing country like Indonesia, the government and citizens have their own priorities regarding policy. Priority in relation to a policy is a sense of urgency which is shared among policy-makers (Rip & Nederhof, 1986). Thus, citizens may not expect the smart city to be a priority. This could be because the residents of Bandung might think that education, health care, or jobs are the main priority that the government needs to solve.

Also, introducing a successful smart city will give a government massive credit. This is related to promotional tools and political branding. Promotion is about raising awareness among the audience (Pitts & Harms, 2003). A smart city will be successful if the citizens are aware of the policy. They need to know about the policy and how to use it. People also need to know who introduced the policy. At this point, a smart city would be good political branding. According to Ahmad and Poppa (2014), political branding is using a working policy when campaigning. Thus Bandung's smart city program might be advantageous for the mayor or other public officials to increase their credit and could be of use to them during the next election.

The municipality of Bandung has introduced several programs within the framework of a smart city. The programs are, for instance, upgrading internet facilities, the Bandung Panic Button and the Bandung Command Centre (Ardisasmita, 2015). To

measure public support for a smart city, it is important to know whether the people know about the smart city, are interested in it, and benefit from it. The people will know about the smart city if information about the smart city is provided for citizens. Implementing a smart city in Bandung should lead to changes in Bandung's society. Citizens may perceive many things after the implementation of a smart city. Upgrading the internet service will increase the integration of inter-departmental data in the municipality of Bandung. Therefore, implementing a smart city in Bandung will have also an impact on more transparent government. Citizens will see how the use of social media by the municipality can improve their participation in governance processes. Thus, people will be interested in and benefit from a smart city. Additionally, people's perceptions will change. The change will happen when people have their own perceptions of the smart city. For instance, in relation to policy priorities. For some people, a smart city is important and needed, while others feel there are more important programs in relation to their life. Also, perceptions about the smart city will lead to changes in political views. This happens when people see the smart city as an achievement of the municipality. Subsequently, the success might build perceptions that the smart city is a political branding for the municipality as well as the mayor. This could be an advantage for further steps, for instance in relation to voting in the next election. Thus, people will react by giving feedback about the program. According to the elements listed by Bolivar and Meijer (2015), the following can be expected regarding public support for a smart city:

2.3.1. Smart cities lead to a more transparent government, because the policy works.

The use of technology will result in a more transparent government. For example, in respect of the process of selecting civil servants in Indonesia (Ministry of Finance, 2014), maximizing computer-assisted tests enables participants to know their result quickly. The public can also monitor the selection process, and know that the selection process is fair. From the perspective of Bandung, improving the internet service within the municipality of Bandung (Ardisasmita, 2015) will allow citizens to get information more easily. As a result, people will perceive the smart city as having given them a more transparent government.

H1: There is a positive relationship between public support for a smart city

and a more transparent government

2.3.2. A smart city is a good policy because it can improve participation.

A smart city can increase public participation in decision-making. With its advanced technology, a smart city allows citizens to interact with the municipality (Innovation Centre Denmark, 2015; Warsia, 2014). The aim of the municipality program on maximizing the use of social media is to increase citizens' participation. The implementation of a smart city in Bandung will oblige the municipality to create more opportunities for people to interact with the government. Ardisasmita (2015) gives an example of how the integration of data allows collaboration between the government and the public. This means that the participation of people will increase.

H2: There is a positive relationship between public support for a smart city and increased participation by using social media

2.3.3. The smart city is a not a priority for people.

In a developing country like Indonesia, residents expect the government to provide them with good health services and education (Baltussen, 2006; Lanjouw et. al., 2001; Del Granado et al., 2007). Therefore, proposing a smart city may not gain support from citizens because they may think that the government should prioritize other needs within society. These people will have a different perception of the smart city. Poorer people might think about their basic needs. Consequently, for them a smart city may be seen as an unimportant and unnecessary part of the government's program. On the contrary, richer people may have a different perception of a smart city.

H3: The people do not support the smart city because it is not a priority for them.

2.3.4. The smart city is just political branding for the campaign of an incumbent candidate.

Politicians tend to use previously successful policies as a promotional tool. Such political branding could include using a working policy, especially by incumbent candidates, for their campaign (Ahmad & Popa, 2014). The success of a smart city will influence

people's political perception. Success will be used as a campaign manifesto in a future election. This is not a good example for Indonesian society (Loisa & Setyanto, 2012). Consequently, this could make people less enthusiastic about the smart city program.

H4: There is a negative relationship between public support for the smart city and the perception of a smart city program as political branding.

2.4 Theory: In sum

People tend to support a policy if they perceive benefits from the policy. With the assistance of modern technology, a smart city should bring many benefits for residents. Among the many benefits, this study takes into account a more transparent government and increased public participation. People will have easy access to a lot of data and information about the city's governance. Thus, it will also be easier for them to monitor and analyse what is going on in the city in which they live. They will also know what improvements the government are making in governing the city. As a result, interaction between the people and the government will increase. At this point, public participation in the city is increasing, and this will create more engagement between the residents and the municipality.

On the other hand, there is also a negative side to smart city programs. The residents of a developing country expect the government to fulfil their basic needs. This means that policy about health care and education should be highlighted. In other words, the smart city program will not be a priority for people living in a developing country. These people will probably not support a smart city because they do not feel it is important for them. Moreover, in political practice, a successful policy tends to be used as a tool as political branding. People might not support a smart city program because the policy would be used to gain more votes in the future. The following figure gives us a better understanding of key concepts of this research:

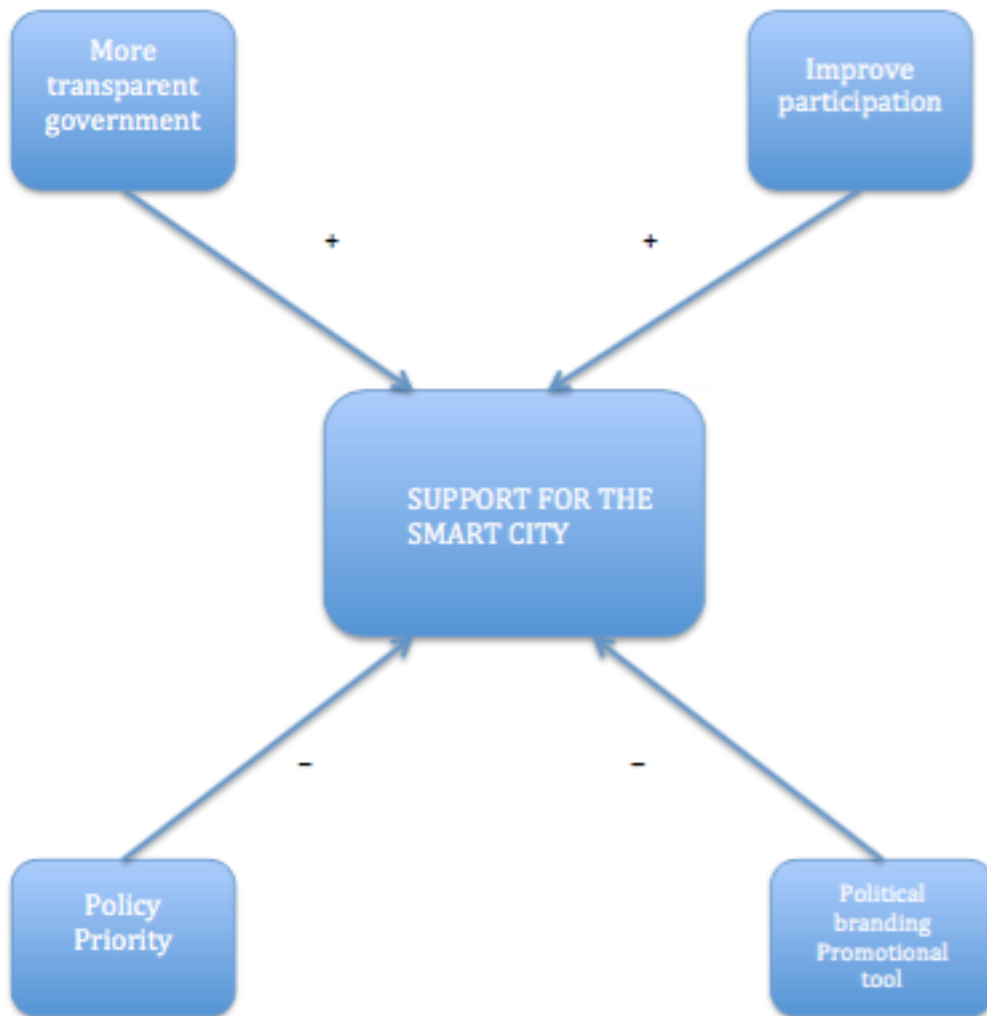


Figure 2.1: Model of Hypotheses

3. Research Methods

3.1 Concept Operationalization

I have now provided a theoretical description of these concepts. To investigate these concepts empirically, we need to operationalize them as a basis for empirical research. In this section I will indicate how I operationalize the key concepts of this research.

3.1.1 Public support

I follow the concept of public support of Rudolph & Evans (2005) and Stern (1999), who say that public support is closely related to political trust and how much people are

willing to sacrifice. People will support the government if they trust them. Also, Jæger (2006) argues that self-interest and political ideology also contribute to public support. This means that people will support the government if they like its policy and/or they have the same political ideology. As a result, when people support the government, it is more likely that, as a supporter, they will be more willing to make sacrifices. However, the concept of willingness to sacrifice is too vague, so measuring this indicator will be quite difficult. Therefore, for this variable I selected political trust as the main indicator. This is because political trust is also related to people's self-interest and political ideology. Thus, public support is apparent from the degree to which people trust a political actor. In this study, I selected trust in the mayor and the municipality of Bandung as indicators. Moreover, the concept of public support is also related to benefits perceived by residents. Leuos (2012) argues that people will support a policy if the policy results in social and economic benefits, and they will also be supportive if a policy makes the government more effective. According to this, benefit becomes one of the indicators of public support. I would argue that people need to believe that a particular policy will benefit them. I would say that another indicator for public support is trust in a policy's benefit. Therefore, in measuring this variable, the indicators are:

- I support Bandung Smart City Programs because I trust the policy's benefit.
- I support Bandung Smart City Programs because I trust the mayor.
- I support Bandung Smart City Programs because I trust the municipality.

These statements are answered using Lickert scales (5-scale, ranging from strongly disagree to strongly agree). The measurement's result will capture the reason why people support Bandung Smart City Programs. In testing the hypothesis, these indicators were selected as the dependent variable. This allows us to see the relationship between these indicators and the independent variables. The result describes whether there is a positive or negative relationship, and also whether it is a weak or strong relationship.

Table 3.1: Operationalization Concept of Public Support

Variable	Meaning	Indicator	Scale
Public Support	Public support	Political trust	• Strongly

	<p>related to political trust and willingness to sacrifice (Rudolph & Evans, 2005; Jæger, 2006)</p> <p>The public will support a policy if the policy results in both social and economic benefits (Leuos, 2012)</p>	<ul style="list-style-type: none"> • Trust the benefit • Trust the government 	<p>disagree</p> <ul style="list-style-type: none"> • Disagree • Neutral • Agree • Strongly agree
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3.1.2 Transparent Government

According to Grimmelikhuijsen and Meijer (2014), transparent government exists where the external actors of an organization are allowed to monitor the internal workings or performance of the organization. A transparent government allows its citizens to monitor and access how the government works, particularly, by allowing them to access such documents as the annual budget and report. With the assistance of communication technology like the internet, the government can share documents publicly. Thus, people can read and learn about them. At this point, the governance service will be more transparent. In Indonesia, a new regulation has been introduced that allows public access to several documents. To avoid corruption, documents such as budget, planning, and the financial report need to be shared publicly. Thus, it is important to see whether people access these documents or not. To measure this variable, the questions are:

- Bandung Smart City Programs allow the government to use internet systems to grant access to data and information.
- Bandung Smart City Programs make it easier to find information about government services nowadays.
- Bandung Smart City Programs make it easier to access the government’s budget plan

- Bandung Smart City Programs make it easier to access the government's financial report
- I support Bandung Smart City Programs because the government service is more transparent

These statements are answered using Lickert scales (5-scale, ranging from strongly disagree to strongly agree).

Table 3.2: Operationalization Concept of Transparent Government

Variable	Meaning	Indicator	Scale
Transparent Government	The availability of information about an organization or actor allowing external actors to monitor the internal workings or performance of that organization (Grimmelikhuijsen & Meijer, 2014)	Data and Information <ul style="list-style-type: none"> • Policy information • Planning, Document availability • Accountability report 	<ul style="list-style-type: none"> • Strongly disagree • Disagree • Neutral • Agree • Strongly agree

3.1.3 Participation

Ways in which people can participate in the governance process include having an opportunity to consult on, be involved in, and provide input in decision-making (Smith, 1983). This will result in more interaction between residents and the government. This interaction may take the form of asking a question, lodging a complaint, or giving feedback about a policy or when people have a bad experience regarding a government service. In Bandung, interaction mostly take place using social media. Due to the increasing number of social media users, the municipality of Bandung is using social media to get closer to its residents. To measure this variable, the questions are:

- The social media used by the municipality encourage me to ask questions.

- The social media used by the municipality allow me lodge complaints easily.
- The social media used by the municipality allow me give feedback on a policy.
- The social media used by the municipality allow me to interact with the mayor easily.
- The social media used by the municipality allow me to interact with other public officials easily.
- I support Bandung Smart City Programs because they facilitate interaction with the municipality.

These statements are answered using Lickert scales (5-scale, ranging from strongly disagree to strongly agree).

Table 3.3: Operationalization Concept of Participation

Variable	Meaning	Indicator	Scale
Participation	<p>“public participation” encompasses a group of procedures designed to consult, involve, and inform the public to allow those affected by a decision to have an input into that decision. (Smith, 1983)</p>	<ol style="list-style-type: none"> 1. Consult <ul style="list-style-type: none"> ● Ask question ● Give complain 2. Involve <ul style="list-style-type: none"> ● Have interaction 3. Input into decision <ul style="list-style-type: none"> ● Give feedback 	<ul style="list-style-type: none"> ● Strongly disagree ● Disagree ● Neutral ● Agree ● Strongly agree

3.1.4 Priority

The priority of a policy is strongly related to how the stakeholders perceive that policy’s

urgency and importance. Rip and Nederhof (1986) explain that priority is the sense of urgency among policy-makers. However, this study also takes residents' sense of urgency into account. In order to know whether people support a policy, it is important to know their preferences. In developing countries, the policies that attract people's attention are those involving health care, education and the infrastructure. In Indonesia, the government focuses on these policies. Therefore, the question in relation to this variable is to ask people which policy they feel is most urgently needed among policies on the smart city, health care, education and the infrastructure.

The question asked in order to measure this variable is:

Among these policies, how do you prioritize them? Number them from 1 (most priority) to 4 (least priority)

- Smart City 1.
- Health Services 2.
- Education Services 3.
- Infrastructures (e.g. roads, parks) 4.

Table 3.4: Operationalization Concept of Priority

Variable	Meaning	Indicator	Scale
Priority	Sense of urgency shared among policy-makers (Rip & Nederhof, 1986)	1. Urgency <ul style="list-style-type: none"> ● Importance ● Needed 2. Other options	Policies' priority

3.1.5 Political Branding

For this variable, the concept of political branding was selected, which is where a working policy is often used by the government for campaigns (Ahmad and Poppa, 2014). The indicators are about achievements of the policy and about political campaigns. Beforehand, the policy needs to have been well-promoted. People need to know the policy. According to Pitts and Harms (2003), promotion is to increase

awareness among the people. Thus, the indicator is how people came to know about the policy, and who first introduced the policy. Therefore, the questions of this variable are:

- Bandung Smart City Programs makes the mayor more popular
- The success of Bandung Smart City Programs is an achievement of the mayor
- Bandung Smart City Programs will be used as a campaign manifesto in the next election
- I do not support the use of Bandung Smart City Programs as political branding

These statements should be answered using Lickert scales (5-scale, ranging from strongly disagree to strongly agree).

Table 3.5: Operationalization Concept of Political Branding

Variable	Meaning	Indicator	Scale
Promotional tool/Political Branding	<p>Promotion is to create raise awareness among the audience</p> <p>(Pitts & Harms, 2003)</p> <p>Political branding is using a working policy in a campaign.</p> <p>(Ahmad & Poppa, 2014)</p>	<p>1. Awareness</p> <ul style="list-style-type: none"> ● Knowing the policy ● Knowing who introduced it <p>2. Political Branding</p> <ul style="list-style-type: none"> ● Achievement ● Campaign 	<ul style="list-style-type: none"> ● Strongly disagree ● Disagree ● Neutral ● Agree ● Strongly agree

3.2 Research Design

The study will take into account the policy of Bandung municipality in creating a smart city. The empirical study will be performed by conducting a survey, asking the residents

of Bandung about their perception of the smart city programs. This will investigate whether the smart city programs are supported by the residents or not.

Survey research is the testing of objectives theories by examining relationships between variables (Creswell, 2014). In this research the variables are a) public support and b) a smart city. As the study measures the degree of public support for the smart city, the independent variable is the smart city, and the dependent variable is public support. The result will therefore show whether the smart city programs established in Bandung receive high or low support from the city's residents.

First of all, in categorizing the residents, I followed the categories of Newman and Newman (1975) which divides people into several phase of life. The categories are late adolescence (18-24), early adulthood (24-34), middle adulthood (34-60), late adulthood (60-75), and very old age (75+) (Newman & Newman, 2014). This study has added a prior category, i.e., people below 18 years of age. These age-groups were selected because, based on their age, people may have different perceptions and experience regarding smart city programs.

Moreover, in order to know whether people are rich or poor, I followed the concept of the Indonesian Statistical Agency (BPS) which defines poor people by looking at their expenditure (BPS, n.d). Thus, a question was included asking people what their monthly expenditure is. In practice, I found that asking people about their expenditure is generally accepted and answered more easily than asking them about their income.

The study takes into account the policy of Bandung municipality in creating a smart city. The quantitative study is performed by conducting a survey, asking the residents of Bandung about the smart city program. Survey research tests objective theories by examining the relationships between variables (Creswell, 2014). In this research, the variables are a) public support and b) a smart city. As the study measures the degree of public support for the smart city, the independent variable is the smart city, and the dependent variable is public support. The results will therefore show whether the smart city programs established in Bandung received high or low support from the people.

The population sample of the research is formed by people currently living in

Bandung, as well as people who used to live in Bandung. These people would have to know about the smart city program established by the municipality of Bandung. The respondents represent every age group and educational background.

In order to measure the relationship between public support and the smart city, the data are analysed using the SPSS program. In analysing the data, there are two ways that need to be taken into account. The study describes the perception of Bandung's residents about the smart city, which can be either positive or negative. The description is explained in line with the hypothesis. The study describes the hypothesis as follows:

- whether or not there is a positive relationship between a smart city and a more transparent government,
- whether or not there is a positive relationship between a smart city and improving public participation,
- whether or not there is a negative relationship between a smart city and policy priority,
- whether or not there is a negative relationship between a smart city and a promotional tool as political branding.

The survey was administered through a combination of an online and a paper-based survey. The online survey method was chosen because the municipality of Bandung has been active in its use of social media to reach citizens (Warsia, 2014). This allows people to easily interact with the mayor of Bandung and the municipality. Therefore, the online survey is the best way of reaching the residents of Bandung as respondents. The online survey has the advantage of reaching the younger generation and the higher educational group.

On the other hand, a paper-based survey is better for reaching the older generations and the lower educational group. This combined method means the respondents are more representative of a variety of age-groups and educational backgrounds, and thus allows a larger sample group to participate in the research.

Data from an offline survey were collected in Bandung between 18 and 28 April 2017. A total of 210 people participated in the survey. I met the participants in various places in Bandung, e.g., on the street, at bus stations, in neighbourhoods around bus

stations, in parks, religious centres (mosques), traditional markets, universities, cafés and restaurants. During the weekend, the survey was much easier as many people go out to restaurants or cafés. This increased the likelihood of finding many people who know about the smart city. More people were also found on the streets during the weekend. Every Sunday morning the municipality closes several streets in order to give people an opportunity to run, walking and cycle. Also, in these locations there are people who sell food and drinks. Consequently, many people were found and many participated in the survey. People who are familiar with the smart city were also found at the universities. On the other hand, people who meet at traditional markets, bus stations, and neighbourhoods around bus stations are not very familiar with the smart city. I had to tell people about an example of Bandung Smart City Programs before continuing the survey. Also, some people were reluctant to fill in the questionnaire themselves. The process then followed was to ask them the questions while I wrote down the answers.

In addition, data from the online survey were collected between 18 April and 9 May 2017. About 148 people filled in the online questionnaire. However, a filter question was included about people's knowledge of the smart city. If they answered that they did not know about the smart city, the survey ended. Of the 148 respondents, 113 of them knew about the smart city. Thus, there are 113 responses to the online survey. The questionnaire was disseminated through social media and using a mailing list. The questionnaire was also sent to an Awardee LPDP mailing list. This is an email group for the researcher's scholarship sponsor, whose functions include disseminating a questionnaire. A broader, less biased group of people were reached through a *Facebook* group community, Ridwan Kamil Watch, which has more than 11,000 members who regularly post feedback about Bandung's current condition. The combination of paper-based and online questionnaires is expected to include a sample of people who are representative of the population of Bandung in respect of age, gender, income and level of education.

3.3 Data Quality Check

The surveys resulted in 323 responses. It is very important to keep looking at the data in order to make sure all the questions have been answered. At the end of the questionnaire, I asked a question about the respondent's willingness of keep in touch to

confirm their responses. Although this was an optional question, some people left their e-mail address and phone number for confirmation. Fortunately, confirmation was not necessary because when I checked the data, it was apparent that all the participants had answered all the questions. Checking the data, especially for the offline survey, can be done at the end of the survey each day. After I collected the data, in the evening, I made it part of my daily schedule to check the answers.

3.4 Data analysis

The data were processed using an SPSS program. There are several steps to the data analysis conducted in this study. First, the data were entered into the SPSS program by giving each response a code. This is important to make the data easier to analyse by means of the SPSS program. Second, in order to see whether the scale was reliable enough, a reliability test was conducted for each variable. The reliability test was conducted per group of hypothesis variables. For instance, there is a reliability test for the variables of more transparent government, a reliability test for variables of public participation, and a reliability test for variables of political branding.

Third, each cluster of questions was then tested with a factor analysis test. This results in a Kaiser Meyer Oikin (KMO) number. This result is important to see whether the cluster was adequate enough for the factor analysis. Fourth, I selected the most interesting variable in each cluster and then looked at the descriptive statistic. This gives the easiest description for the reader about people's responses in this study.

The fifth step is testing the hypotheses. In order to examine hypotheses 1 and 2, the study looked for correlations between variables and tested them with multiple regression. The correlations were either strong or weak. In testing with multiple regression, the variable 'supports a smart city because of benefit' was selected as the dependent variable. This is because the variable is strongly related with hypotheses 1 and 2 which are about a positive relationship between public support and more transparent government and public participation. Subsequently, the degree of public support was revealed. In addition, hypothesis 3 was proven by using descriptive analysis. In this case, people were asked to prioritize policies based on their perception. People arranged the 4 policies (smart city, health care, education and the infrastructure)

by indicating their most important policy that the government should take into account. Hypothesis 4, 'the public will not support use of the smart city as political branding', was revealed by descriptive analysis. In this case, the variable 'I do not support use of the smart city as political branding' is very crucial. Therefore, the responses will discover the extent to which people do not support use of the smart city as political branding.

4. Limitation

A limitation of this study relates to the understanding of what constitutes a smart city. As mentioned in the theoretical framework section, the definition of a smart city is still not commonly accepted. The concept of a smart city is still being debated among scholars. Thus, in Bandung too, people's understanding of a smart city differs. According to Bandung's Smart City program, examples of a smart city program are making the budget and financial report accessible, developing an application for daily activities such as security, the availability of wifi in public areas, and the use of social media for communication and interaction with the residents of Bandung. Therefore, a smart city in this study covers such examples as those of the municipality of Bandung.

In addition, another limitation of this study relates to the respondents. Not all respondents understand, know about, or have even heard of the smart city. The survey contained a filter question that ends the survey if the respondent does not know about or has never heard of a smart city. Unfortunately, some people who did not know about or had never heard of a smart city are those with a lower education. Some of these people could not participate in the survey. Those who did participate are highly educated people. It was quite difficult to find people with a lower education who knew about Bandung's smart city program. Therefore, the sample of this study does not represent the total population of Bandung from an educational perspective.

5. Reliability

Internal consistency of the measurements was assessed by calculating Cronbach's Alpha of all items measuring attitudes. The item concerning the basis of how respondents prioritize the most important policy was excluded from this calculation, since the response options do not correspond with the other variables using Likert-scales.

5.1 Public Support

The items included in this calculation are about public support for the smart city. The items taken into account in the calculation are “I support Bandung Smart City Programs because the government service is more transparent”, “I support Bandung Smart City Programs because they facilitate interaction with the municipality”, “I do not support the use of Bandung Smart City Programs as political branding”, “I support Bandung Smart City Programs because I trust the policy’s benefit”, “I support Bandung Smart City Programs because I trust the mayor”, and “I support Bandung Smart City Programs because I trust the municipality”. These items used Likert-scales. Cronbach’s Alpha for these items measuring public support for a smart city is 0.611, which is generally considered acceptable.

Reliability Statistics

Cronbach's Alpha	N of Items
,611	6

The result is better after excluding the item “I do not support the use of Bandung Smart City Programs as political branding”. By excluding this item, the new Cronbach Alpha is 0.746, which is obviously even more acceptable.

Reliability Statistics

Cronbach's Alpha	N of Items
,746	5

5.2 Transparent Government

The items included in this reliability test are items relating to people’s perception of a more transparent government. The items in the calculation are “Bandung Smart City Programs allow the government to use internet systems to grant access to data and information”, “Bandung Smart City Programs make it easier to find information about

government services nowadays”, “Bandung Smart City Programs make it easier to access the government’s budget plan”, “Bandung Smart City Programs make it easier to access the government’s financial report”, “I support Bandung Smart City Programs because the government service is more transparent”. Cronbach Alpha for this calculation is 0.837, which means accepted.

Reliability Statistics

Cronbach's Alpha	N of Items
,837	5

Since the item “I support Bandung Smart City Programs because the government service is more transparent” was already included in the reliability test for the variables of public support, we can exclude it from this calculation. After excluding that item, the Cronbach Alpha is now 0.839 which is slightly higher than the first test.

Reliability Statistics

Cronbach's Alpha	N of Items
,839	4

5.3 Participation

The items included in this reliability test are items relating to people’s perception of the increase in public participation due to the use of social media. Items in the calculation are “The social media used by the municipality encourage me to ask questions”, “The social media used by the municipality allow me lodge complaints easily”, “The social media used by the municipality allow me give feedback on a policy”, “The social media used by the municipality allows me to interact with the mayor easily”, “The social media used by the municipality allow me to interact with other public officials easily”, and “I support Bandung Smart City Programs because they facilitate interaction with the municipality”. The result of Cronbach Alpha is 0.809 which means it is reliable enough.

Reliability Statistics

Cronbach's Alpha	N of Items
,809	6

Since the item “I support Bandung Smart City Programs because they facilitate interaction with the municipality” was already included in the reliability test for the variables of public support, we can exclude it from this calculation. After excluding that item, the Cronbach Alpha is now 0.801 which, though slightly lower than the first test, is still reliable enough.

Reliability Statistics

Cronbach's Alpha	N of Items
,801	5

5.3 Political Branding

The items included in this reliability test are items relating to people’s perception of the use of the smart city as political branding. The items in the calculation are “I know about the Bandung Smart City Programs”, “Bandung Smart City Programs are an initiative of the mayor”, “Bandung Smart City Programs make the mayor more popular”, “The success of Bandung Smart City Programs is an achievement of the municipality”, “The success of Bandung Smart City Programs is an achievement of the mayor”, “Bandung Smart City Programs will be used as a campaign manifesto in the next election”, and “I do not support the use of Bandung Smart City Programs as political branding”. The result of Cronbach Alpha is 0.608 which is relatively acceptable.

Reliability Statistics

Cronbach's Alpha	N of Items
,608	7

Since the item “I do not support the use of Bandung Smart City Programs as political branding” is already included in the test for the reliability of public support variables, we can leave it out in this test. The new reliability test resulted in Cronbach Alpha 0.683

which means it is more reliable than the first test.

Reliability Statistics

Cronbach's Alpha	N of Items
,683	6

In general, all the reliability tests for the variables are accepted. In other words, the items are reliable enough.

6. Population and Sample

Bandung is one of the most highly populated cities in Indonesia. According to the Indonesian National Statistical Agency (BPS), Bandung is the 4th most populated city. More than 2.4 million people live in Bandung. The total population who could have participated in the study are as follows:

Table 6.1: The Population of Bandung

Age	Total	% from total inhabitants
> 18	230,095	9.3%
18-24	263,635	10.6%
25-34	457,246	18.4%
35-60	765,853	30.9%
More than 61	175,326	7%

Source: BPS Kota Bandung, 2015

In total, by combining the offline and online surveys, 323 people participated in this study. Of the 323 respondents, 36,22% are 25-34 years old, while 31,27% are 35-60 years old. This shows that most of the data come from people of a very productive age. On the contrary, no one in the age-group more than 75 years old participated in the survey. Although about 4.33% of people from the age-group 60-75 participated, it was fairly difficult to reach these people. Most of them do not know about Bandung's smart city programs. Therefore, not many people from the older generation participated in the

survey. The other groups of people who participated are below 18 years old (12.69%) and 18-24 years old (15.48%).

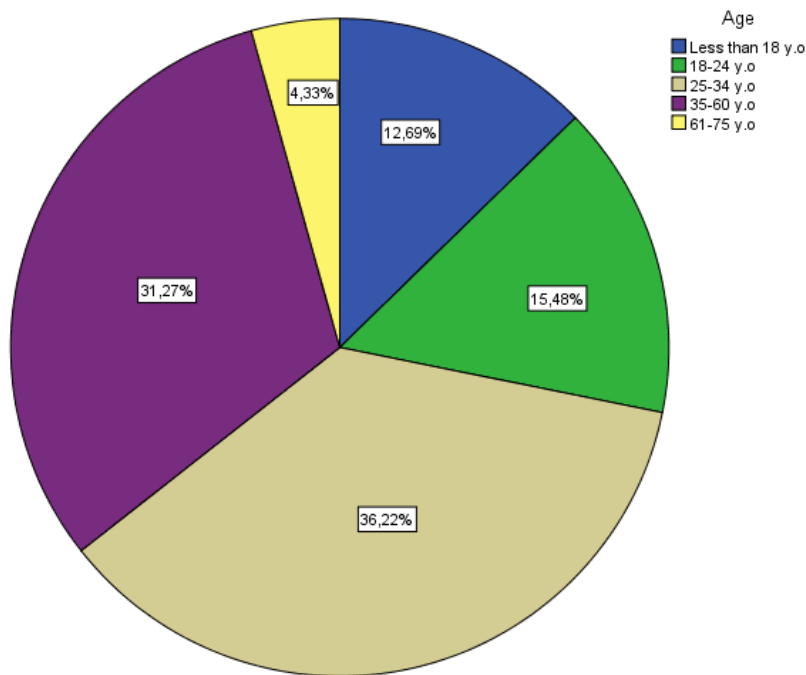


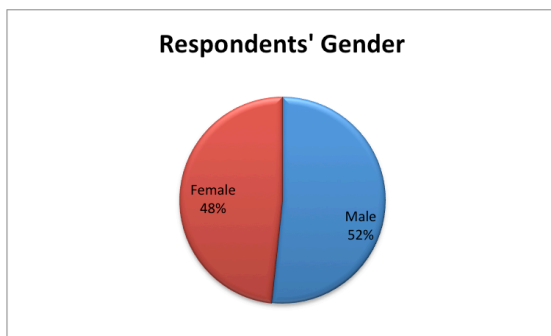
Figure 6.1: Age of the respondents

If we compare this with the population data of people living in Bandung, 9% are in the age-group 15-19 years old, 10% are 19-24 years old, 18% are 25-34 years old, 30% are 35-60 years old, and 7% are more than 60 years old. The data show that the respondents are very close to being representative of the residents of Bandung.

Moreover, in respect of educational level, the background of most people is that of bachelor level (44.58%), followed by people with a high-school background (24.46%), and people with a Master/Ph.D background (18.89%). From the data, we know that people with a higher educational background participated in the online survey. On the other hand, the offline survey was completed by respondents with a broader educational background. The majority of these respondents have a bachelor background (39%), followed by those with a high-school background (32.4%), and junior high-school (15.2%). In addition there were respondents with a Master/Ph.D background (10%), and a few with an elementary school background (2.9%). Lastly, the offline survey was also completed by uneducated people (0.5%). This shows that the online

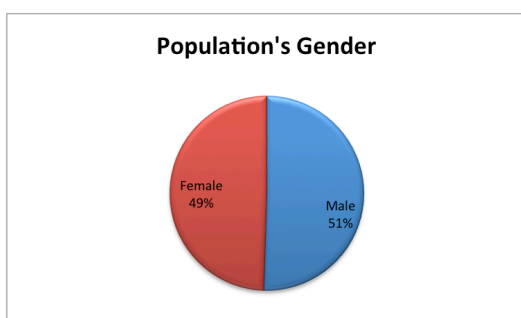
survey only reached people with a higher education. In other words, these people may have greater internet access.

Additionally, in respect of gender, the respondents are representative of the population. A total of 167 males and 156 females participated in the survey. This means that 52% of the respondents were female and 48% were male.



Picture 6.2: Respondents' gender

If we compare this with the total population in Bandung, there are 1,253,274 males and 1,228,195 females in Bandung. The data show that the difference is not really significant. The population of Bandung consists of 51% males and 49% females. This means that the respondents of this study are representative of the population of Bandung.



Picture 6.3: Population's gender

In sum, the sample shows that the data are representative of the whole population of Bandung. Especially in respect of age and gender, the study results can be generalized for the perception of Bandung's residents regarding smart city programs. However, as discussed previously in section 4, people's education is one of the

limitations of this research. Many people do not know about Bandung's smart city programs, and the respondents who do are mainly people with a higher education. This profile was clearly apparent in the online survey. The online survey also indicates that this method of survey was only well-known among people with a higher education. I would say this was probably either because people with a lower education did not understand online surveys, or they did not have internet access.

Having studied the profile of the respondents, the following section now examines each of the hypotheses and the results of the study.

7. Findings

This section discusses what the data tell us about public support of the smart city in Bandung. Overall, what we found in the field regarding transparency is that people are very happy about the implementation of a smart city in Bandung, whereby the municipality has become more transparent. Also, people generally feel that their interaction with the municipality is improving. By using social media, they feel it is easier to lodge complaints and put questions to the municipality. Although the smart city programs do indicate having made a positive impression, according to these people, health care and education programs should be given more priority than the smart city. In addition, perceptions differ as to whether the programs will be used as political branding in the future. We saw these patterns when we compared them with public support. So these phenomena should discover the level of public support for a smart city. To check this we carried out a systematic analysis. The analysis is divided over each of the hypotheses.

7.1 Hypothesis 1: *There is a positive relationship between public support for a smart city and a more transparent government*

First of all, the factor analysis test for H1 shows that the Kaiser Meyer Oikin (KMO) result is bigger than 0.50, i.e. 0.728. This result indicates that the data for H1 are accepted for the factor analysis. Moreover, the significance result shows that the hypothesis is accepted. The variables selected for this analysis are "Bandung Smart City Programs allow the government to use internet systems to make data and information accessible", "Bandung Smart City Programs make it easier to find information about

government services nowadays”, “Bandung Smart City Programs make it easier to access the government’s budget plan”, “Bandung Smart City Programs make it easier to access the government’s financial report” and “I support Bandung Smart City Programs because the government service is more transparent”.

By selecting alpha at 0.005, the significant number of the factor analysis is 0.000, which means that the result is significant because it is below 0.005.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,728
Bartlett's Test of Sphericity	Approx. Chi-Square	847,425
	df	10
	Sig.	,000

Picture 7.1: Factor Analysis for H1

In addition, almost 90% respondents either agree or strongly agree with the statement “I support smart city because the government service is more transparent.” The answer of only 9% respondents was neutral, the level of disagreement was less than 1.5%, i.e., answered by only 4 people. This fact shows that people are happy with the smart city and they see that the smart city makes the municipality of Bandung more transparent nowadays.

I support Bandung Smart City Programs because the government service is more transparent

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	1	,3	,3	,3
	Disagree	3	,9	,9	1,2
	Neutral	29	9,0	9,0	10,2
	Agree	164	50,8	50,8	61,0
	Strongly Agree	126	39,0	39,0	100,0
	Total	323	100,0	100,0	

Figure 7.2: Frequency table of variable for H1

Moreover, the correlation analysis shows that there is a correlation between more transparent government and public support. The result indicates that there is a significant correlation between the variables. However, the correlation between access to the financial budget plan/report and public support is not really significant. The significance for these variables was just 0.009 and 0.011, meaning that the correlation is not really strong. Although the municipality provides public access to the documents, people still think that the documents are not really important for them. These are probably people who do not really understand the financial budget plan and report.

Correlations							
		Bandung Smart City Programs allow the government to use internet system to open the data and information	Bandung Smart City Programs make it easier to find information about governance services	Bandung Smart City Programs make it easier to access the government's budget plan	Bandung Smart City Programs make it easier to access the government's financial report	I support Bandung Smart City Programs because the government service is more transparent	I support Bandung Smart City Programs because I trust the policy's benefit
Bandung Smart City Programs allow the government to use internet system to open the data and information	Pearson Correlation	1	,566**	,372**	,399**	,447**	,388**
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000
	N	323	323	323	323	323	323
Bandung Smart City Programs make it easier to find information about governance services	Pearson Correlation	,566**	1	,605**	,560**	,413**	,396**
	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000
	N	323	323	323	323	323	323
Bandung Smart City Programs make it easier to access the government's budget plan	Pearson Correlation	,372**	,605**	1	,878**	,378**	,144**
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.009
	N	323	323	323	323	323	323
Bandung Smart City Programs make it easier to access the government's financial report	Pearson Correlation	,399**	,560**	,878**	1	,401**	,142**
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.011
	N	323	323	323	323	323	323
I support Bandung Smart City Programs because the government service is more transparent	Pearson Correlation	,447**	,413**	,378**	,401**	1	,399**
	Sig. (2-tailed)	0.000	0.000	0.000	0.000		0.000
	N	323	323	323	323	323	323
I support Bandung Smart City Programs because I trust the policy's benefit	Pearson Correlation	,388**	,396**	,144**	,142**	,399**	1
	Sig. (2-tailed)	0.000	0.000	0.009	0.011	0.000	
	N	323	323	323	323	323	323

** . Correlation is significant at the 0.01 level (2-tailed).
 * . Correlation is significant at the 0.05 level (2-tailed).

Figure 7.3: Correlation Analysis for H1

Later on, the hypothesis was tested by multiple regression. The test selected the variable “I support smart city because I trust the benefit” as the dependent variable. Subsequently, the variable from the H1 question was selected as independent variable. The result for H1 shows that there is a strong and significant result between public support for the smart city because the government is more transparent. The results mainly prove the hypothesis with the variables of availability of data and information

about government services. There are weak and non-significant results about the availability of the budget plan and financial report on the internet. This is because in practice people do not think that the government really gives access to the budget plan and financial report. Even if the government do, not many people are interested to learn about them. To strengthen the regression test, the study also conducted a correlation test on these variables. The Pearson correlation strengthens the multiple regression test, which shows that there is a strong correlation between the variables “Bandung Smart City Programs allow the government to use internet systems to make data and information accessible”, “Bandung Smart City Programs make it easier to find information about government services nowadays”, and “I support Bandung Smart City Programs because the government service is more transparent. The correlations show that there are strong relationships between the dependent variable with the other three variables.

According to the above, the results confirmed hypothesis 1, that there is a positive relationship between a more transparent government and public support for a smart city. In this sense, the degree of support is high too. It seems that the public perceive a positive experience of the smart city as it makes the government more transparent.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2,783	,191		14,543	,000	2,407	3,160
	Bandung Smart City Programs allow the government to use internet system to open the data dan information	,204	,049	,252	4,136	,000	,107	,301
	Bandung Smart City Programs make it easier to ind information about governance services	,288	,057	,354	5,029	,000	,175	,401
	Bandung Smart City Programs make it easier to access the government's budget plan	-,084	,080	-,113	-1,040	,299	-,242	,075
	Bandung Smart City Programs make it easier to access the government's financial report	-,040	,074	-,058	-,547	,585	-,186	,105

a. Dependent Variable: I support Bandung Smart City Programs because I trust the policy's benefit

Figure 7.4: Regression Analysis for H1

7.2 Hypothesis 2: *There is a positive relationship between public support for a smart city and increased participation by using social media*

There is similar result in factor analysis for H2. The result shows that the Kaiser Meyer Oikin (KMO) result is bigger than 0.50, i.e. 0.785. The significance is also less than 0.05, i.e. 0.000. This reveals that the data are accepted for factor analysis. The variables selected for this test were “The social media used by the municipality encourage me to ask questions”, “The social media used by the municipality allow me lodge complaints easily”, “The social media used by the municipality allow me give feedback on a policy”, “The social media used by the municipality allow me to interact with the mayor easily”, “The social media used by the municipality allow me to interact with other public officials easily”, and “I support Bandung Smart City Programs because they facilitate interaction with the municipality”.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,785
Bartlett's Test of Sphericity	Approx. Chi-Square	752,527
	df	15
	Sig.	,000

Figure 7.5: Factor Analysis for H2

The use of social media is important in increasing interaction between residents and a municipality. This step started with the mayor of Bandung who posts updates on social media. Consequently, people can have more interaction with the mayor and the municipality. More than 80% of the respondents agree and strongly agree that they support the smart city because their interaction with the government is increasing. On the contrary, less than 6% of the respondents answered that they disagree or strongly disagree.

I support Bandung Smart City Programs because they facilitate interaction with the municipality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	5	1,5	1,5	1,5
	Disagree	14	4,3	4,3	5,9
	Neutral	42	13,0	13,0	18,9
	Agree	163	50,5	50,5	69,3
	Strongly Agree	99	30,7	30,7	100,0
Total		323	100,0	100,0	

Figure 7.6: Table of frequency of variable for H2.

A multiple regression analysis was also conducted to test the hypothesis. Similarly to H1, the dependent variable is “I support the smart city because I trust the benefit”. This variable was selected because the hypothesis is about the benefit perceived by the respondents. This indicates that the variable is suited to the hypothesis.

The result shows that for hypothesis 2 there is a strong and significant result between public support for the smart city because it increases participation by using social media. This indicates that the respondents feel that interaction with the municipality is become easier because of smart city programs.

Additionally, the Pearson correlation test was also conducted to test hypothesis 2. The correlation test shows the same result as the multiple regression test. The correlation indicates a positive and strong relationship between the variables “I support Bandung Smart City Programs because I trust the policy’s benefit” and “I support Bandung Smart City Programs because they facilitate interaction with the municipality”. Furthermore, the correlation is positive and strong with the other variables relating to hypothesis 2.

The results from multiple regression and correlation confirmed hypothesis 2. People perceive the smart city as increasing interaction with the municipality. The degree of public support is also high. This means that people welcome the Bandung smart city programs because they generate interaction with the municipality through social media.

		Correlations						
		The social media used by the municipality encourages me to ask questions	The social media used by the municipality encourages me to address complaints easily	The social media used by the municipality encourages me to give feedback on a policy	The social media used by the municipality encourages me to interact with the Mayor easily	The social media used by the municipality encourages me to interact with the other public officials easily	I support Bandung Smart City Programs because make interaction with the municipality becomes easier	I support Bandung Smart City Programs because I trust the policy's benefit
The social media used by the municipality encourages me to ask questions	Pearson Correlation	1	,603**	,711**	,404**	,360**	,335**	,319**
	Sig. (2-tailed)		,000	,000	,000	,000	,000	,000
	N	323	323	323	323	323	323	323
The social media used by the municipality encourages me to address complaints easily	Pearson Correlation	,603**	1	,640**	,495**	,306**	,202**	,351**
	Sig. (2-tailed)	,000		,000	,000	,000	,000	,000
	N	323	323	323	323	323	323	323
The social media used by the municipality encourages me to give feedback on a policy	Pearson Correlation	,711**	,640**	1	,504**	,345**	,326**	,355**
	Sig. (2-tailed)	,000	,000		,000	,000	,000	,000
	N	323	323	323	323	323	323	323
The social media used by the municipality encourages me to interact with the Mayor easily	Pearson Correlation	,404**	,495**	,504**	1	,362**	,270**	,305**
	Sig. (2-tailed)	,000	,000	,000		,000	,000	,000
	N	323	323	323	323	323	323	323
The social media used by the municipality encourages me to interact with the other public officials easily	Pearson Correlation	,360**	,306**	,345**	,362**	1	,592**	,074
	Sig. (2-tailed)	,000	,000	,000	,000		,000	,184
	N	323	323	323	323	323	323	323
I support Bandung Smart City Programs because make interaction with the municipality becomes easier	Pearson Correlation	,335**	,202**	,326**	,270**	,592**	1	,301**
	Sig. (2-tailed)	,000	,000	,000	,000	,000		,000
	N	323	323	323	323	323	323	323
I support Bandung Smart City Programs because I trust the policy's benefit	Pearson Correlation	,319**	,351**	,355**	,305**	,074	,301**	1
	Sig. (2-tailed)	,000	,000	,000	,000	,184	,000	
	N	323	323	323	323	323	323	323

Figure 7.7: Correlation Analysis for H2

7.3 Hypothesis 3: *The people do not support the smart city because it is not a priority for them.*

For hypothesis 3, people were asked to prioritize the most important policy based on their preferences. Thus, to answer hypothesis 3, descriptive analysis was selected. The data recorded the 1st to 4th policies. The study finds that hypothesis 3 was confirmed as people named the smart city as the 4th most important policy. Only 5.6% of the respondents selected the smart city as having most priority. The policy placed in first position is education services, which was selected by 36.8% of the respondents. Health care came second and was chosen by 32.2 % of the respondents. Finally, the infrastructure programs took third place and were chosen by 6.5% of the respondents. In line with the 1st priority, more than 50% people gave the smart city 4th priority in their ranking.

The data show that the smart city is not a priority for the residents of Bandung.

People are more likely to expect the municipality to improve education and health services as both policies were selected by more than 30% of the residents as 1st priority. Therefore, according to the result, hypothesis 3 was confirmed. The respondents do not support the smart city because it is not a priority. The degree to which this policy is not supported is high.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Education	119	36,8	36,8	36,8
	Health	104	32,2	32,2	69,0
	Infrastructure	61	18,9	18,9	87,9
	Smart City	39	12,1	12,1	100,0
	Total	323	100,0	100,0	

Picture 7.8: The 1st policy priority

7.4 Hypothesis 4: *There is a negative relationship between public support for the smart city and the perception of a smart city program as political branding.*

For hypothesis 4, the degree of public support for the smart city in the relation to the people's perception of smart city as political branding has taken into account. Factor analysis for H4 gave a similar result. The result shows that the Kaiser Meyer Oikin (KMO) is 0.731, which is bigger than 0.50. The significance is 0.000 which is less than Alpha 0.05. This result reveals that the data are accepted for factor analysis. The variables selected for this analysis were "I know about the Bandung Smart City Programs", "Bandung Smart City Programs are the initiative of the mayor", "Bandung Smart City Programs make the mayor more popular", "The success of Bandung Smart City Programs is an achievement of the municipality", "The success of Bandung Smart City Programs is an achievement of the mayor", "Bandung Smart City Programs will be used as a campaign manifesto in the next election", and "I do not support the use of Bandung Smart City Programs as political branding".

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,731
Bartlett's Test of Sphericity	Approx. Chi-Square	342,894
	df	21
	Sig.	,000

Figure 7.9: Factor analysis for H4

Multiple regression was also conducted to test hypothesis 4. The variable “I support Bandung Smart City Programs because I trust the mayor” was selected as the dependent variable. The variables for hypothesis 4 were selected as the independent variables. These were calculated to prove whether hypothesis 4 is accepted or not. The result shows that there are significant and strong results for perceptions about the mayor. Variables which have a strong and significant result are “Bandung Smart City Programs are an initiative of the mayor” and “The success of Bandung Smart City Programs is an achievement of the mayor”. Besides, there is also negative relationship for the variable “I do not support the use of Bandung Smart City Programs as political branding”. However, the degree is not really significant, as it is 0.081. By setting the limit at 5%, this result is still beyond the level of significance, although the value is not very far from the limit. Thus we can say that there is a negative relationship, but not a strong relationship.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95,0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1,766	,281		6,282	,000	1,213	2,319
	Bandung Smart City Programs come from the Mayor's initiative	,215	,062	,195	3,495	,001	,094	,336
	Bandung Smart City Programs make the Mayor more popular	,057	,056	,056	1,019	,309	-,053	,168
	The success of Bandung Smart City Programs is an achievement of the Mayor	,363	,059	,354	6,160	,000	,247	,479
	Bandung Smart City Programs will use as a campaign manifesto for the next election	-,017	,040	-,022	-,417	,677	-,096	,063
	I do not support bandung Smart City Programs to be used as political branding	-,063	,036	-,085	-1,748	,081	-,135	,008

a. Dependent Variable: I support Bandung Smart City Programs because I trust the Mayor

Figure: 7.10 Regression Analysis for H4

Additionally, the study also shows correlation in the variables related to political branding. The result indicates that there is a negative correlation between the variable “I do not support the use of Bandung Smart City Programs as political branding” and “I support Bandung Smart City Programs because I trust the mayor”. Similar to the result with multiple regression, the correlations show that there is a negative correlation, though it is not a strong relationship.

Correlations

		I do not support bandung Smart City Programs to be used as political branding	I support Bandung Smart City Programs because I trust the Mayor	The success of Bandung Smart City Programs is an achievement of the Mayor	Bandung Smart City Programs come from the Mayor's initiative
I do not support bandung Smart City Programs to be used as political branding	Pearson Correlation	1	-,059	,046	,042
	Sig. (2-tailed)		,293	,414	,453
	N	323	323	323	323
I support Bandung Smart City Programs because I trust the Mayor	Pearson Correlation	-,059	1	,453**	,363**
	Sig. (2-tailed)	,293		,000	,000
	N	323	323	323	323
The success of Bandung Smart City Programs is an achievement of the Mayor	Pearson Correlation	,046	,453**	1	,445**
	Sig. (2-tailed)	,414	,000		,000
	N	323	323	323	323
Bandung Smart City Programs come from the Mayor's initiative	Pearson Correlation	,042	,363**	,445**	1
	Sig. (2-tailed)	,453	,000	,000	
	N	323	323	323	323

** . Correlation is significant at the 0.01 level (2-tailed).

Figure 7.11: Correlation Analysis for H4

The results show that there is negative relationship between public support for the smart city and the perception of smart city as political branding. Although the program impresses people with many benefits, the idea of turning smart city as political branding seems not accepted by the people. However, the level of this negative support is not really high. This means that not all people have negative perception about smart city as political branding.

To support this finding, it is important to examine the descriptive analysis of the variable. The descriptive analysis shows that more than 50% of the respondents are divided on whether they agree or disagree that the smart city program in Bandung will very probably be used as a campaign manifesto. The neutral answer of 26.6% of the respondents means that only a few people do not believe that smart city programs will be used as a promotional tool in the next election.

Bandung Smart City Programs will use as a campaign manifesto for the next election

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Disagree	24	7,4	7,4	7,4
	Disagree	48	14,9	14,9	22,3
	Neutral	86	26,6	26,6	48,9
	Agree	125	38,7	38,7	87,6
	Strongly Agree	40	12,4	12,4	100,0
	Total	323	100,0	100,0	

Figure 7.12: Frequency Table of Variable for for H4

In addition, about 32.8% of the respondents agree that the public do not support use of the smart city as political branding. Another 17.3% of the respondents strongly agree with the statement. The fact that 26% of the respondents are neutral means that the number of people who disagree and strongly disagree is lower in comparison with those who are agree and strongly agree.

I do not support bandung Smart City Programs to be used as political branding

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly disagree	22	6,8	6,8	6,8
	Disagree	55	17,0	17,0	23,8
	Neutral	84	26,0	26,0	49,8
	Agree	106	32,8	32,8	82,7
	Strongly agree	56	17,3	17,3	100,0
	Total	323	100,0	100,0	

Figure 7.13: Frequency Table of Variable for for H4

According to above, the result shows that hypothesis 4 was confirmed, though the degree is not really high. The descriptive analysis shows that people do not support use of the smart city as political branding.

8. Discussion

The study confirmed that the residents of Bandung support the Bandung Smart City Programs. People realize that a smart city brings benefits in their life. Benefits that people support are the availability of access to information about government services and the ability to interact with the government. The openness is the first benefit that people perceived. The municipality of Bandung made data and information about their services accessible on the internet. This step was crucial for people. As part of implementing the smart city, people in Bandung feel it is important to put information in the website. As a result, people have easier access to government services. However, in practice, people do not feel that all information posted on the website is necessary. Information about the budget plan and financial report do not interest many people. People may think either that the information is not important for them or they do not know how to understand the report. This is related to hypothesis 3 of this study where people expect the municipality to improve the education service as a priority. This means that people need to be educated before they can be critical about a budget plan and financial report.

In general, the study shows that the smart city in Bandung is an initial step to realising a more transparent government. People believe that the more transparent municipal government is, the more benefits they will perceive. The study reveals that this has gained significant public support. The degree of support for the smart city is also high due to the more transparent government.

In addition, the research also proves that Bandung Smart City Programs bring the benefit of increased interaction between the residents and the municipality. The increasing use of social media makes the municipality more open to interaction. Consequently, interaction with residents is becoming easier. From the public's perspective, social media allow them to ask questions, lodge complaints and obtain feedback from the municipality about government services. They can also make contact with the mayor of Bandung through social media.

The data from this study also prove that residents support the smart city because it makes it easier for them to interact with the government. Thus, the level of support is

also high. This means that the efforts of the municipality of Bandung to increase public participation through the smart city have been accepted by the people.

On the other hand, this study also reveals that the residents of Bandung do not really see the smart city as being very important at the moment. People think the main services that need to be taken into account are education and health care. These policies deserve most priority according to the people, and need to be improved by the government. Statistically, the level of prioritizing education and health is fairly high. In other words, the people of Bandung do support the smart city, but they do not regard the smart city as a priority.

The study also discovered that people do not support use of the smart city as political branding. In the field, people believe that the current mayor will run for the post of governor of West Java next year. People may feel it is okay if the smart city is used as a campaign manifesto next year. Some people said this is quite normal in political practice. However, the study found that people do not support the mayor putting too much focus on the smart city and then using it as political branding. The statistical calculation confirms this theory.

All in all, the residents of Bandung support the smart city programs introduced by the municipality. The support is triggered by their trust in the benefits. The level of support is quite high and significant insofar as the residents perceive the smart city as resulting in a more transparent government and increased interaction. Although they support the smart city, this policy is not a priority. People think there are more important policies that need to be improved rather than the smart city. The political element also reduces the extent to which people support the smart city if it is used as political branding.

9. Conclusion

The study has discovered there are two different perceptions about the smart city. On the one hand people support smart city programs because they make the city more transparent and give them more opportunities to interact with the government. On the other hand, people do not support the smart city because the program is not a priority and it may be used as political branding. The data show that the residents of Bandung

support the implementation of smart city programs. People perceived benefits of smart city programs in transparency and public participation. The study confirmed that people support smart city programs because they make the government more transparent. The same level of support was also revealed in the perception of increased interaction with the municipality. The use of social media allows people to ask more questions, lodge complaints, and obtain feedback about government services.

On the contrary, the residents of Bandung do not support the smart city because they think that health care and education services are more important. They think that the government should give these programs more priority. This is an interesting fact. People actually support the smart city because of the benefits, but they do not think that the smart city should get most priority. The residents of Bandung feel that the government should fulfil their basic needs first, before moving on to smart city programs. This study reveals that the smart city is not an urgent policy that people want. Although they think that the smart city is important and beneficial, at the moment they feel that health care and education programs are more important. Moreover, the negative result also appears in relation to political branding. The residents of Bandung seem not to support use of the smart city as political branding for election purposes. Although the result is not really strong, the level of support in this aspect is negative. The result confirms that people do not support use of the smart city as political branding.

The result of this study indicates that smart city is a good idea in governing a city. The program indeed brings a more effective and efficient government. However, in Bandung, people see smart city is not very important because they think that there are more important programs that should given more priority. Although at the moment people support the smart city program, people think the program is less important than education and health services.

It is interesting to see what lessons can be learnt from this study. Bandung's experience shows that there are different levels of support for the smart city. Other cities where the level of education is still low have the same problems as Bandung. Should the municipality invest more money in the smart city? This study shows that people perceive many benefits from smart city programs. In Bandung, the programs are

popular among the younger generation. This means that smart city programs should be seen as a long-term policy. The population data on Bandung show that the younger generation are in the majority in Bandung. This means that the implementation of smart city programs should have a bright future in Bandung. In the future, young people will make more use of the programs because they are more familiar with modern technology and the smart city.

In practice, the results of this study provide many insights for Ridwan Kamil, the mayor of Bandung. First, people support smart city programs because they bring many benefits. People like the programs once they discover that they make the government more transparent and give them more chance to interact with the municipality. Second, not everyone knows about the smart city. The implication of this is that the government should do to inform people what the smart city is and why the programs are important. Third, people do not really mind if smart city programs are used as a political branding in the next election. However, people do not like the government to place too much focus on these programs as political branding. They want the government to focus on giving benefits. Fourth, if Kamil wants to run as a candidate to become West Java governor, he must take into account the level of people's education. The fact is that not many people know about the smart city. In all probability he will easily win votes in the cities. However, it will be more difficult to win votes in suburban and rural areas.

10. Reflection

The study reveals that in a developing country the utilization of modern technology can result in different experiences from those in a developed country. People's perception can give more insight into how much they support a policy. Theoretically, this study reflects that using innovation technology in a governance process can gain support from the public. Especially in a developing country, people will gladly welcome innovation technology that can bring many benefit for them and their government. A smart city program is an example of programs that need to be implemented in the cities of developing countries. The program can be used to solve many problems in a city such those relating to health care, education or infrastructures. This study reflects the fact that implementation of the smart city in a developing country increases people's trust in smart city programs.

The research permit is the most crucial aspect of this research. The required documents need to be send to the Ministry of Internal Affairs. Due to the distance involved (Netherlands – Indonesia), I had to contact a friend to assist me in obtaining the required permit.

To accelerate the data collection process. I recruited a bachelor student from a local university and divided the survey between us. His recruitment was necessary as a student is more familiar than I am with the location. It was also important in order to reach more people. To attract people to participate in the survey, a small souvenir was prepared as a thank you. When data collection took place in a neighbouring bus station, the survey collected a large quantity of data. To our surprise, the next day, many more people were waiting for us. They wanted to participate so they could get the souvenir too.

Some people were afraid to participate in the survey. They thought that the survey was part of a government project. They were afraid of government officials because they have problems relating to tax and business permits. Consequently, it was necessary to tell people about the purpose of the research before asking the questions. Moreover, respondents from the age-group 35-65 were not sure whether they knew what a smart city is. We first had to explain to them what Bandung smart city programs are. Once we had finished explaining, some of them realized that they sometimes use the programs, such as public wifi or lodging online complaints.

11. Suggestions for further research

This study has revealed that the residents of Bandung support the smart city programs. However, this study does have limitations. Three subjects related to this study could give more insight into research of the smart city and would complement this study. These are studying how the municipality created the smart city in Bandung, how often people use smart city programs, and how the effective smart city is used in a political campaign manifesto.

This study focussed on the perception that Bandung residents have of the smart city. For further research it would be interesting to see how the municipality has worked on the smart city. This would complement the study about public support for the smart

city. Examining it from the perspective of the municipality would reveal how the municipality prepared the programs, how they created the infrastructure, how they implemented it, and how they responded to feedback from the people. In the end, such further research would discover the reason why Bandung achieved the honour of becoming a finalist for the world smart city award in 2015.

In addition, due to the large amount of support for the smart city from Bandung residents, especially due to the government being more transparent and increased interaction with the municipality, it would also be interesting to know how well people use the smart city programs. The residents have realized that the smart city brings benefit for them. Further study now needs to reveal how often people use the smart city. The smart city is indeed an expensive investment for the government. Therefore, further study is important to measure how well people use these expensive programs.

Subsequent research will be related to political research. The mayor of Bandung plans to run as a candidate for governor next year. People believe that the smart city will be used as a campaign manifesto. It will therefore be interesting to know how effective it was to use the success of the smart city as a campaign manifesto. This should also relate to whether or not a smart city becomes a reason for voting for a candidate.

Bibliography

- Abernethy, D., & Trevor, O. (1965). Education and Politics in Developing Countries. *Harvard Educational Review (Cambridge, Mass)*, 35 (3), 287-302.
- Ahmad, N., & Popa, I.-L. (2014). The Social Media Usage and the Transformation of Political Marketing and Campaigning of the Emerging Democracy in Indonesia Case Study of the 2012 Gubernatorial Election of the Special Region of the Capital City Jakarta. In B. Pătruț, & M. Pătruț, *Social Media in Politics Case Studies on the Political Power of Social Media* (pp. 97-125). London: Springer International Publishing.
- Anttiroiko, A.-V. (2015). Smart Cities: Building Platforms for Innovative Local Economic Restructuring. In M. P. Rodríguez-Bolívar, *Transforming City Governments for Successful Smart Cities* (pp. 23-42). London: Springer.
- Ardisasmita, A. (2015, 08 03). *Langkah Bandung dalam Mengimplementasikan Smart City*. Retrieved 03 16, 2017, from Techinasia: <https://id.techinasia.com/bandung-smart-city>
- Baltussen, B. (2006). Priority setting of public spending in developing countries: Do not try to do everything for everybody. *Health Policy*, 149-156.
- Barone, A. (2016). *A new Economic Theory of Public Support for the Arts: Evolution, Veblen and the predatory Arts*. New York: Routledge.
- Blum, S. (2015, 10 19). *'Megacities' Set to Transform Asia-Pacific Region by 2050 The crux of growth will occur in India and China*. Retrieved 05 09, 2016, from Inverse: <https://www.inverse.com/article/7198-megacities-set-to-transform-asia-pacific-region-by-2050>
- Bolivar, M., & Meijer, A. (2015). Smart Governance: Using a Literature Review and Empirical Analysis to Build a Research Model. *Social Science Computer Review*, 1-20.
- Boyte, H., & Kari, N. (1996). *Building America : the democratic promise of public work*.

Philadelphia: Temple University Press.

Chierici, C. (2005). Public support for the European Union From theoretical concept to empirical measurement. *Centre for European Studies (CES) - working Paper*.

Cocchia, A. (2014). Smart and Digital City: A Systematic Literature Review. In R. Dameri, & C. Rosenthal-Sabroux, *Smart City: How to Create Public and Economic Value with High Technology in Urban Space* (pp. 13-44). London: Springer.

Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches 4th Edition*. London: Sage Publications.

David, N., Justice, J., & McNutt, J. (2015). Smart Cities Are Transparent Cities: The Role of Fiscal Transparency in Smart City Governance. In M. P. Rodríguez-Bolívar, *Transforming City Governments for Successful Smart Cities* (pp. 69-86). London: Springer.

del Granado, F., Fengler, W., Ragatz, A., & Yavuz, E. (2007). Investing in Indonesia's Education: Allocation, Equity, and Efficiency of Public Expenditures. *World Bank Policy Research Working Paper 4329*.

di Bella, E., Odone, F., Corsi, M., Sillitti, A., & Breu, R. (2014). Smart Security: Integrated Systems for Security Policies in Urban Environments. In R. Dameri, & C. Rosenthal-Sabroux, *Smart City: How to Create Public and Economic Value with High Technology in Urban Space* (pp. 221-236). London: Springer.

Easterly, W. (2001). The Lost Decades: Developing Countries' Stagnation in Spite of Policy Reform 1980–1998. *Journal of Economic Growth*, 6, 135-157.

European Parliament. (2014). *Mapping Smart Cities in the EU*. Brussels: European Parliament, Directorate General for internal policies.

Grimmelikhuijsen, S., & Meijer, A. (2014). Effects of Transparency on the Perceived Trustworthiness of a Government Organization: Evidence from an Online Experiment. *Journal of Public Administration Research and Theory*, 24 (1), 137-157.

Hicks, P. (2001). Public Support for Retirement Income Reform. *OECD Labour Market and Social Policy Occasional Papers*.

Innovation Centre Denmark. (2015). Pre-conference report Smart Solutions for Innovative Cities. *International Federation for Housing and Planning* (p. 33). Copenhagen: Danish Agency for Science and Innovation.

Islam, S. A. (2012). Dhaka: Social Dynamics of a Megacity. *South Asia: Journal of South Asian Studies*, 35 (4), 885-892.

Jæger, M. M. (2006). What Makes People Support Public Responsibility for Welfare Provision: Self-interest or Political Ideology? A Longitudinal Approach. *Acta Sociologica*, 49 (3), 321-338.

Kamil, R. (2016). *Smart City Bandung 2016*. Opgehaald van Perpustakaan Nasional Republik Indonesia: <http://ipi.perpusnas.go.id/sites/default/files/berkas/Smart%20City%20Bandung%20-%20Ridwan%20Kamil.pdf>

Kamil, R. (2015). *Smart City Bandung*. Opgehaald van Sustainable Development United Nations: <https://sustainabledevelopment.un.org/content/documents/12659kamil.pdf>

Lanjouw, P., Pradhan, M., Saadah, F., Sayed, H., & Sparrow, R. (2001). Poverty, Education, and Health in Indonesia: Who Benefits from Public Spending? *World Bank Policy Research Working Paper No. 2739*.

Leous, A. F. (2012). *variables that Influence Public Support for Transportatiion Referendums*. Atlanta: Georgia Institute of Technology: Master Thesis.

Loisa, R. & Setyanto, Y. (2012). *Mencari Bentuk Kampanye Politik Khas Indonesia: Pencitraan Berbasis Dimensi Budaya*. Fakultas Ilmu Komunikasi : Universitas Tarumanagara.

Meijer, A., Gil-Garcia, J., & Bolivar, M. (2015). Smart City Research: Contextual Conditions, Governance Models, and Public Value Assessment. *Social Science Computer*

Review.

Meijer, A., & Bolivar, M. (2015). Governing the smart city: a review of the literature on smart urban governance. *International review of Administrative Science* , 1-17.

Merli, M., & Bonollo, E. (2014). Performance Measurement in the Smart Cities. In R. Dameri, & C. Rosenthal-Sabroux, *Smart City How to Create Public and Economic Value with High Technology in Urban Space* (pp. 139-156). London: Springer.

Ministry of Finance. (2014, 10 31). *Recruitment Process of Civil Servant Candidates (CPNS) in Ministry of Finance for Fiscal Year 2014*. Retrieved 03 23, 2016, from Ministry of Finance Republic of Indonesia: <http://www.kemenkeu.go.id/en/SP/recruitment-process-civil-servant-candidates-cpns-ministry-finance-fiscal-year-2014>

Negre, E., & Rosenthal-Sabroux, C. (2014). Recommendations to Improve the Smartness of a City. In R. Dameri, & C. Rosenthal-Sabroux, *Smart City: How to Create Public and Economic Value with High Technology in Urban Space* (pp. 101-116). London: Springer.

Netzer, D. (1978). *The Subsidized Muse: Public Support for the Arts in the United States*. New York: Cambridge University Press.

Newman, B., & Newman, P. (2014). *Development Through Life: A Psychosocial Approach* (12th ed.). Boston: Cengage Learning.

Ojo, A., Curry, E., Janowski, T., & Dzhusupova, Z. (2015). Designing Next Generation Smart City Initiatives: The SCID Framework. In M. P. Rodríguez-Bolívar, *Transforming City Governments for Successful Smart Cities* (pp. 43-68). London: Springer.

Qiu, J. (2012, 10 12). *Megacities pose serious health challenge: Researchers call for stringent air-quality control during rapid urbanization*. Retrieved 05 09, 2016, from Nature: International Weekly Journal of Science: <http://www.nature.com/news/megacities-pose-serious-health-challenge-1.11495>

Ragupathi, M., & Prabu, G. (2015). A study on customer satisfaction towards smart

phone users. *International Journal of Applied Research* , 270-274.

Rhiu, I., Rhie, Y., Kim, G.-W., & Yun, M. (2014). Observing The Smart TV - Viewing Experience By A Diary Based Observation Method. *Proceedings of the Human Factors and Ergonomics Society 58th Annual Meeting* (pp. 1209-1213). Seoul: SAGE Publication.

Rodríguez-Bolívar, M. P. (2015). Smart Cities: Big Cities, Complex Governance? In M. P. Bolívar, *Transforming City Governments for Successful Smart Cities* (pp. 1-8). London: Springer.

Rudolph, T., & Evans, J. (2005). Political Trust, Ideology, and Public Support for Government Spending. *American Journal of Political Science* , 49 (3), 660-671.

Shukla, P. (2016). The Indian smart village: Foundation for growing India. *International Journal of Applied Research* , 72-74.

Smart City World Congress. (2015). *The 2015 World Smart City Awards winners*. Retrieved 02 08, 2016, from Smart City Expo:

Sorman, G. (2010). *Asian Megacities, Free and Unfree How politics has shaped the growth of Shanghai, Beijing, and Seoul*. Retrieved 05 09, 2016, from City Journal: <http://www.city-journal.org/html/asian-megacities-free-and-unfree-13332.html>

Thorne, C., & Griffiths, C. (2014). Smart, Smarter, Smartest: Redefining Our Cities. In R. Dameri, & C. Rosenthal-Sabroux, *Smart City: How to Create Public and Economic Value with High Technology in Urban Space* (pp. 89-100). London: Springer.

Wall, R., Stavropoulos, S., Edelenbos, J., & Pajević, F. (2015). Evaluating the Performance of Smart Cities in the Global Economic Network. In M. P. Rodríguez-Bolívar, *Smart City: How to Create Public and Economic Value with High Technology in Urban Space* (pp. 87-114). London: Springer.

Warsia, N. f. (2014, 09 23). *Using social media to manage a city: The Ridwan Kamil way*.

Retrieved 02 08, 2016, from Digital Market Asia:

<http://www.digitalmarket.asia/2014/09/using-social-media-to-manage-a-city-the-ridwan-kamil-way/>

Wildavsky, A. (1979). *Speaking Truth to Power*. Boston: MA: Little, Brown.

World Bank. (2013). *World Development Indicators 2013*. Washington DC: World Bank.

Yu, H., Karimi, H., & Zhu, X. (2014). Research of Smart Car's Speed Control Based on the Internal Model Control. *Hindawi Publishing Corporation Abstract and Applied Analysis*, 1-6.

Annex:

Questionnaire

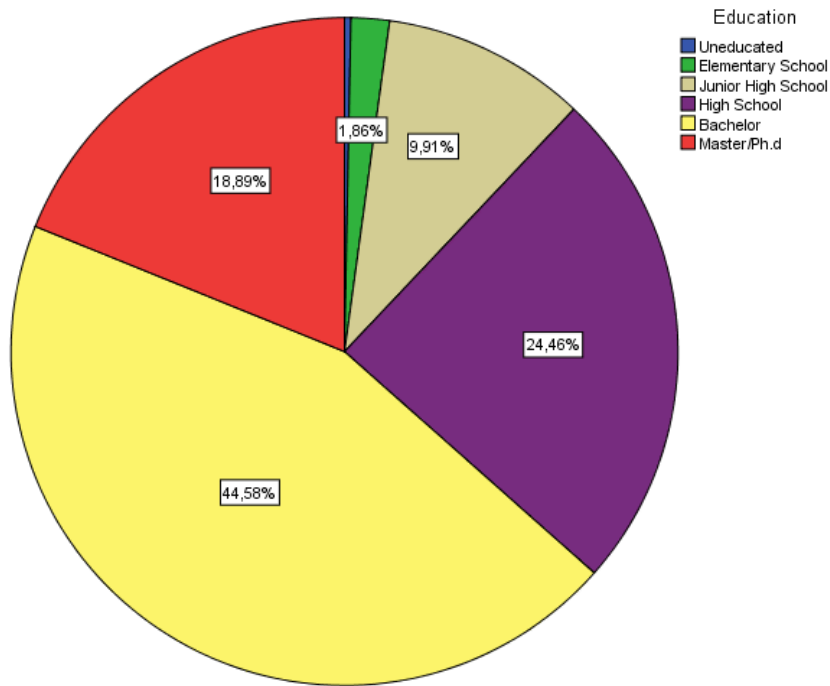
No	Question	Response
	Personal Information	
1.	Age	
2.	Sex	a. M b. F
3.	Education Background	a. Uneducated
		b. Basic School
		c. Junior High School
		d. High School
		e. College/University
		f. Master/Doctoral
4.	Occupation	a. Unemployed
		b. Civil Servants/Teacher
		c. Military/Police officer
		d. Private employee
		e. Merchants/Entrepreneur
		f. Other
	Basic Information about Smart City	
	The Municipality of Bandung has introduced smart city as a program to accelerate service delivery for the people. For instance, the municipality has established Bandung Command Center, a monitoring room where the municipality can watch current traffic condition. The municipality also has	

No	Question	Response
	introduced Bandung Panic Button, an application to prevent criminal behavior in the street. The mayor of Bandung also obliges all sub-districts and some public officials to use social media to improve an interaction with the people.	
5.	Do you know about the Smart City Program in Bandung	a. Yes b. No
6.	Have you ever use the Smart City output	a. Yes b. No c. Not Sure
	Smart City for a more transparent government	
7.	Bandung Smart City Programs make it easier to find information about government services now	Strongly disagree Disagree Neutral Agree Strongly agree
8.	Bandung Smart City Programs make it easier to access the government's budget plan	Strongly disagree Disagree Neutral Agree Strongly agree
9.	Bandung Smart City Programs make it easier to access the government's financial report	Strongly disagree Disagree Neutral Agree Strongly agree
10.	Bandung Smart City Programs	Strongly disagree

No	Question	Response
	allow the government use internet system to open the data and information	Disagree Neutral Agree Strongly agree
	Smart City Improves Participation	
11.	The social media used by the municipality encourages me to ask question	Strongly disagree Disagree Neutral Agree Strongly agree
12.	The social media used by the municipality allows me address complaints easily	Strongly disagree Disagree Neutral Agree Strongly agree
13.	The social media used by the municipality allows me give feedback on a policy	Strongly disagree Disagree Neutral Agree Strongly agree
14.	The social media used by the municipality allows me to interact with the mayor easily	Strongly disagree Disagree Neutral Agree Strongly agree
15.	The social media used by the municipality allows me to interact with other public officials easily	Strongly disagree Disagree Neutral Agree Strongly agree

No	Question	Response
	Priority of Policy	
16.	Among these policies, how do you prioritize them?	Give number from 1 (most priority) to 4 (less priority)
	Smart City	
	Health service	
	Education service	
	Infrastructures (e.g. roads, parks)	
	Smart City as a Promotional tool / Political Branding	
17.	I know about the Bandung Smart City Programs	Strongly disagree Disagree Neutral Agree Strongly agree
18.	Bandung Smart City Programs comes from the mayor's initiative	Strongly disagree Disagree Neutral Agree Strongly agree
19.	Bandung Smart City Programs makes the mayor more popular	Strongly disagree Disagree Neutral Agree Strongly agree
20.	The success of Bandung Smart City Programs is an	Strongly disagree Disagree

No	Question	Response
	achievement of the municipality	Neutral Agree Strongly agree
21.	The success of Bandung Smart City Programs is an achievement of the mayor	Strongly disagree Disagree Neutral Agree Strongly agree
22.	Bandung Smart City Programs will use as a campaign manifesto for the next election	Strongly disagree Disagree Neutral Agree Strongly agree
	Public Support	
23.	I support Bandung Smart City Programs because they trust policy's benefit	Strongly disagree Disagree Neutral Agree Strongly agree
24.	I support Bandung Smart City Programs because they trust the mayor	Strongly disagree Disagree Neutral Agree Strongly agree
25.	I support Bandung Smart City Programs because they trust the municipality	Strongly disagree Disagree Neutral Agree Strongly agree



4th Priority

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Smart City	172	53,3	53,3	53,3
	Infrastructure	99	30,7	30,7	83,9
	Education	30	9,3	9,3	93,2
	Health	22	6,8	6,8	100,0
	Total	323	100,0	100,0	