

The Readiness of The Cirebon City Government to Enter The Digital Economy Era in an ICT Perspective

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Abstract. The rapid globalization accompanied by democratization and the development of information and communication technology (ICT) pushes government institutions to use ICT in order to improve government public services, especially in the economic field. This research discussed the Cirebon City Government's preparation to launch the Smart City Program planned from May 2017 for facing the development of ICT, particularly in smart economic sector. The research used qualitative and quantitative approaches elaborated by SWOT analysis to measure the readiness of the Cirebon City Government to enter the digital economy era. In addition, the level of the Cirebon City Government's readiness was observed from the numbers of online shops and products managed by Cirebon citizens in online marketplace. The result showed that the Cirebon City Government and the citizens were in the early stages of entering the digital economy era in which it was proved through the existence of a basis/design of Local Regulations, community service products, and the design of the system integration of the Cirebon City that had led to the Smart City Concept.

1. Introduction

The rapid development of globalization accompanied with the development of information and communication technology (ICT) demands government participation in the digital era. The digital era has been begun through the emergence of internet networks and electronic products, for instance, computer and gadget. The challenges of the digital era have entered various fields, such as economics, defense, security, social culture, politics and information technology. The sophisticated digital technology currently makes a big difference to a country. In addition, people are more easily accessing information in many ways, and enjoying digital technology freely and in control.

Inevitably, the digital era have to be faced by the government or the citizens without even looking at their preparation. The rapid development of technology in the human life clearly must be followed by all people, and they have to master and control the technology properly and correctly in order to obtain the great benefits.

Based on the case above, The Cirebon City Government is encouraged to prepare for the digital era by developing a communication and information technology to provide easy access and improve services for the citizens. Therefore, this research aimed at measuring the level of Cirebon City and its citizens' readiness to enter and face the digital era, especially in the economic field.

2. Theoretical framework

2.1 *E-government and smart city*

E-government is explained as the process of using information technology as a tool to help the government system more efficiently at work [1]. E-Government operates the government system by utilizing the use of internet technology and social media as a tool, thus all government processes can be carried out quickly and efficiently, and ease the public to access information.

Based on Presidential Instruction No. 3 of 2003 concerning national policies and strategies, the development of *E-Government* is considered as solution for the application of information and communication technology in the government [2]. Neville, describes the concept of Singapore smart city, which is “being a smart city, smartly managed, is not only about information technology, or being in the vanguard of all types of applications of technology. Being smart city-state is about a total operation as a world city with all economic and social dimensions consistent, integrated, and mutually supported. In the area of economic development, the untidy residual of anachronistic agricultural activity on the island was transformed form a rather primitive, traditionally operated, labor intensive, family based horticultural system into a modern, capital intensive business venture based on FDI, almost entirely on the grounds of economic rationality consistent with achievements in the leading sector of manufacturing and financial and business services” [6].

The transformation of Cirebon City began in 2004 with the initiation of the development of e-Government of Cirebon City [3]. In 2005, there was an expansion of e-Government infrastructure by using wireless technology, and afterwards, in 2006, one-door internet access and bandwidth capacity were carried out. In 2007, the development and implementation of applications were carried out through the Intranet of City Government. In 201, the Master Plan of e-Government had been planned. In 2014, the online applications for Public Services and Information was developed and applied, and in 2017, the concept of Cirebon Smart City was finally launched.

2.2 *Profile of Cirebon*

Cirebon is one of the cities in the province of West Java located at 108,33⁰ East Longitude, and 6.41⁰ South Latitude on the North Coast of Java Island, the eastern part of West Java [4]. Cirebon is a strategic area in terms of transportation because it is the border between West Java and Central Java.

The Cirebon City has developed as an area that receives attention from the government since Kertajati Airports was built in Majalengka as a landing place for domestic and international flights. In addition, as result of this development, many investors are interested in investing in Cirebon City, such as hotels, shopping centers, universities, etc.

Looking at this opportunity, Cirebon City has to improve the use of internet technology, especially in information and communication. The technology is expected to facilitate the Cirebon citizens in accessing information and communication with government in Cirebon City.

In preparation for being a smart city, the Cirebon City Government has created several bases, namely as follows:

- a. Decree of the Mayor of Cirebon Number 555 / Kep.88-DISHUB.INKOM / 2014 concerning the Determination of Electronic Letters (E-MAIL) the Cirebon City Government on Cirebon Official Government Domain (cirebonkota.go.id)
- b. Decree of the Mayor of Cirebon Number 555.4/Kep.124-DKIS/2017 concerning the Register of Electronic Systems at the Local Government of Cirebon City
- c. Decree of the Mayor of Cirebon Number 555.4/Kep.123-DKIS/2017 concerning Domain Name Officials in the Local Government of Cirebon City

2.3 *Digital economy era*

The digital era has been begun through the emergence of internet networks and electronic products, for instance, computer and gadget. Nowadays, the digital era affects major changes in the world. People have been facilitated in accessing information through networks that are connected to each other through the internet network [5]. The government urges to make economic development

using digital technology, such as social media, online marketplaces and other media on the internet. These media are expected to improve the national and regional economy.

3. Research method

The research was conducted using a descriptive approach because this research aimed at getting a concrete and detailed description of the success of Cirebon City which was considered as preparation to be a Cirebon Smart City, including "smart economy". The method used a qualitative approach by conducting surveys on online media and website of the Cirebon City Government, and quantitative methods through web crawling to obtain real information and statistics. This research was expected to find out the readiness of the Cirebon City to enter the digital economy era.

4. Result and discussion

4.1. Cirebon's Government Service

Based on the survey result on the public services of the Cirebon City Government, especially in the field of information and communication, there was an effort to provide public services through the digital media, for example, forming an Android application developer's team called Cirebon Smart City. In addition, the Cirebon City Government had also created a website that was accessed in <http://www.cirebonkota.go.id/>

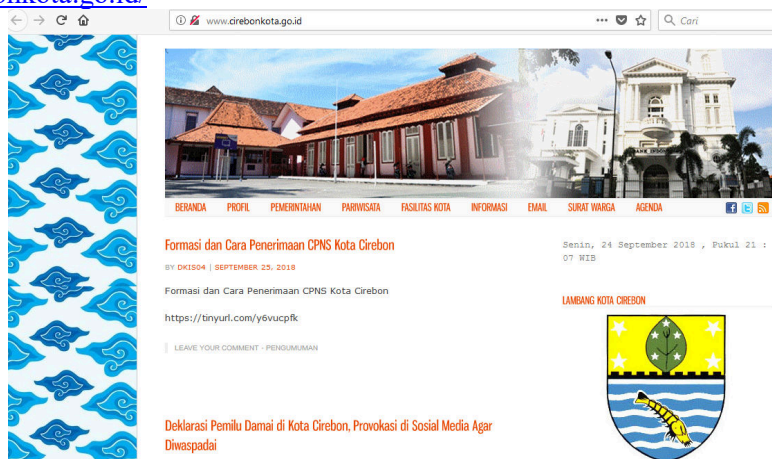


Figure 4.1 Website of Cirebon

People can access information regarding government, tourism, facilities, and even transparency of funds of the Cirebon City via the website. The website was still being used for regular update of all the latest information about the Cirebon City. This evidence was proved from the last post, 25 September 2018. Based on the statistical data "free counter", the website had been visited by 245.632 visitors.

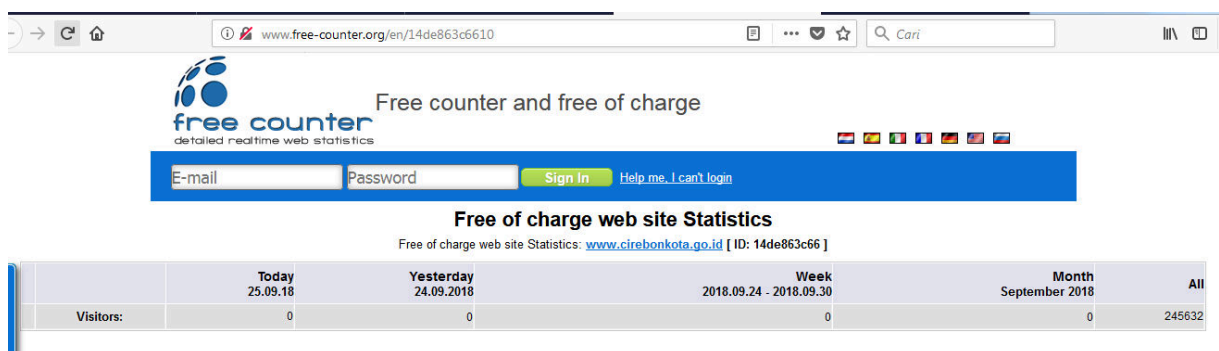


Figure 4.2 Cirebon Website Statistic Data

It showed that the Cirebon City Government had made an effort to provide the latest information to the public. In addition, the Cirebon City Government created an Android application to help citizens access services in the Cirebon City as below:

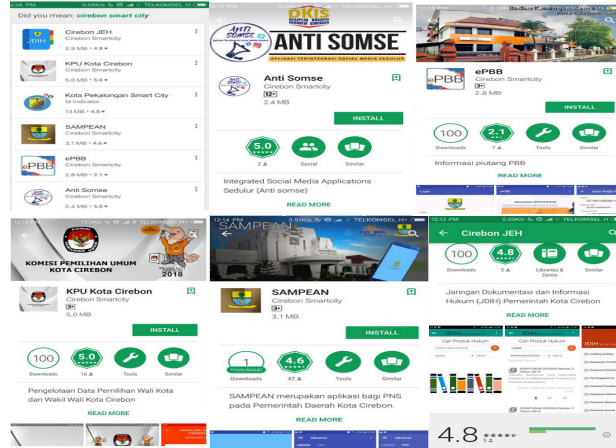


Figure 4.3 Cirebon’s Android Application

Table 4.1 Application Details

Application Function	List of Applications	Description of Application
Financial Management	Management Information System for Regional Development Planning (SIMREDA – <i>Sistem Informasi Manajemen Perencanaan Daerah</i>)	Managing regional development planning data (MUSRENBANG, RPJMD, RENJA & RKPd)
	Financial Management Information System for Regions (SIMDA <i>Keuangan</i>)	Managing financial statements data (RKA, DPA, DPPA, SP2D, LRA)
	Electronic Procurement System for Goods and Services (SPSE – <i>Sistem Pengadaan Barang dan Jasa Secara Elektronik</i>)	Managing procurement for goods and services data
	Electronic System of Procurement Service for Goods and Services (SELARAS – <i>Sistem Elektronik Layanan Pengadaan Barang dan Jasa</i>)	Monitoring procurement for goods and services data
	Workgroup Information System (e-POKJA – <i>Sistem Informasi Kelompok Kerja</i>)	Managing workgroup data of the procurement service units (ULP – <i>Unit Layanan Pengadaan</i>)
	Monitoring and Evaluation System (SIMONEV – <i>Sistem Monitoring dan Evaluasi</i>)	Managing data of monitoring and evaluation of programs and activities
	Management Information System for Regional Development Budget (SIMPENDA – <i>Sistem Informasi Manajemen Pendapatan Daerah</i>)	Managing and monitoring tax data (non-PBB dan BPHTB)
	Monitoring Tax Income – <i>Monitoring Pendapatan Pajak (PBB)</i>	Monitoring data of tax income
	SIMDA-BMD	Managing asset and inventory of regional goods data
	SPTPD Online	Tax calculation that can be accessed online by the taxpayer through all channels of Bank BJB

InfoPajak	Monitoring tax income in real time based on Android application
E-BPHTB	Managing data and tax calculation of BPHTB
E-Lakip	Online accountability report of government performance

Based on the table above, the government created five applications that were distributed through *Google Playstore*, thus the citizens could access them directly. However, based on the analysis above, there were only about 100 people, who downloaded the applications, and the highest application was only 1,000 downloaders for the "Sampean" application. It described a lack of counseling/socialization conducted by the government to the citizen regarding the use of the application. As the result, the citizen did not know about the Cirebon City service application. In addition, lack of research on needs conducted by the Government was considered as the reason for the citizens prefer to use other services that were not products of the Cirebon City Government. Although the result had not satisfied, the appreciation had to be given for the Cirebon City government because they had tried to provide services by utilizing technology. On the other hand, there are also thirteen applications used by government employees, as in Table 4.1.

Cirebon Government had also prepared a Framework/Blueprint of Interconnection and Integration Systems in all sectors of the public services as below.

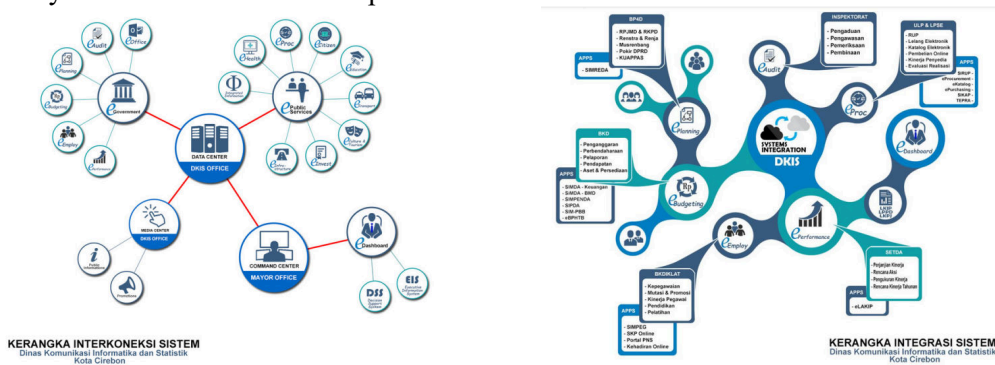


Figure 4.4 Interconnection and Integration Systems

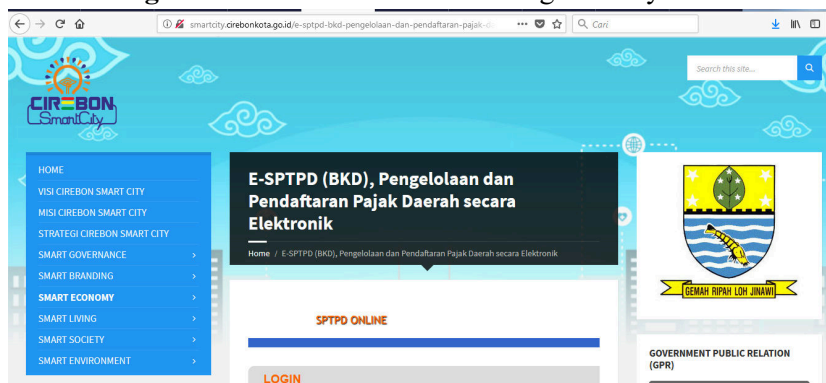


Figure 4.5 Website of Cirebon Smart City

Based on the figures above, it proved that the Cirebon City had a clear goal in designing all public services towards digital direction. In this framework, the Smart Economy aspect showed several plans, such as e-investing, e-budgeting, and some digital economic data management, for example, the management and registration of E-SPTPD regional tax (BKD).

4.2. Cirebon public readiness in facing the digital economy era



Figure 4.6 A survey data of e-commerce activities percentage in Indonesia in 2010

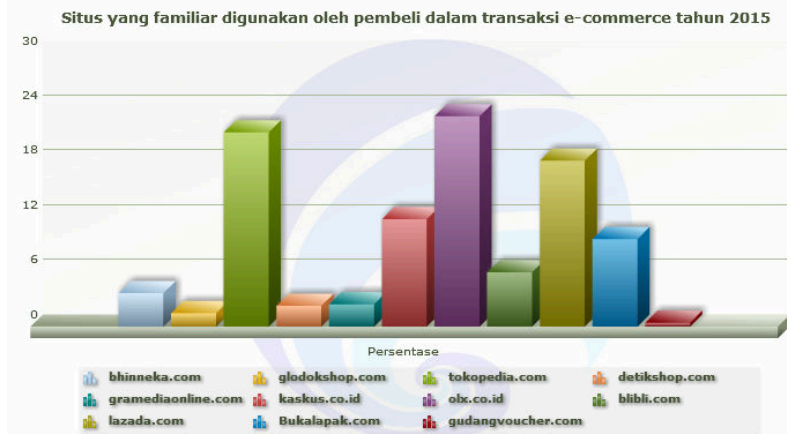


Figure 4.7 A survey data of website used by e-commerce in Indonesia in 2016

This research was based on the KOMINFO survey result in 2016, regarding the marketplace often used by online sellers and which products were often sold. Researchers took the marketplace, which was *Tokopedia*. The samples was obtained from the data of most-selling goods, such as women's tops, women's pants, books, video games, computers and accessories, and biscuits and cakes. Data survey result was as in Table 4.2.

Table 4.2 A data of the use of *Tokopedia* by the citizens of the Cirebon City

No	Product	Total	Total of Store
1	Women's top (fashion)	4.783 Products	68 Stores
2	Women's pants (fashion)	1.531 Products	56 Stores
3	Book	73 Products	4 Stores
4	Video game	0 Product	0
5	Mini PC	19 Products	10 Stores
6	Computer and laptop's accessories	1239 Products	24 Stores
7	Biscuits and Cakes	269 Products	56 Stores

Based on the table above, the most citizens of Cirebon City had used digital internet media to make transactions. In other words, it indicated that the citizens were ready to enter the digital economy era. It could be seen from many online stores emerged in the Cirebon City, especially in fashion and cake business, in which that there were 68 fashion and 56 cake stores.

4.3. SWOT analysis (*strengths, weaknesses opportunities, threats*)

According to the data and information collected, the writer analyzed that the readiness of Cirebon to enter the digital economy era using a SWOT analysis.

4.3.1 *Strength*

- a. The vision of the Office of Communication, Informatics and Statistics of the Cirebon City is "the realization of the Communication, Informatics and Statistics service that is obedient towards Friendly City of Cirebon in 2018" proved that Cirebon was serious to realize the online public services [6].
- b. There were a framework design and integration of interconnection system, thus it defined that Cirebon had already a mature plan to deal with the digital era.
- c. There was a legal basis, which was clearly proved by regional regulations related to the concept of the Cirebon Smart City.
- d. The citizens, who had already various types of online business in the online marketplace, indicated that the citizen was ready to face the digital economy era.

4.3.2 *Opportunities*

- a. The existence of government regulations that supported each region to prepare and face the digital era.
- b. The number of online marketplaces that could be used to sell products with minimal capital because they did not have to open a physical store.
- c. The most of citizens had a smartphone in which it could be opportunity for them to conduct transactions through the digital world.

4.3.3 *Weakness*

- a. There were limited funds that affected the process of developing online services needed a gradual time.
- b. There were some government public services that did not implement online system yet.
- c. The information of the use of an online marketplace was not still delivered to some citizens of the Cirebon City.

4.3.4 *Threats*

Changes in the digital era required government consistency in carrying out these plans. Consistency was required especially when there was a change of government policy, which was likely to change the on-going program.

5. Conclusion

Based on the result obtained above, it concluded that:

1. The readiness of the Cirebon City Government to enter the digital economy era was already good enough, and was in its early stages. It was indicated from the existence of a strategic plan, interconnection framework, clear legal basis and system integration.
2. The citizens of the Cirebon City were also ready to face the digital economic era. It was indicated from the variety of products and several online businesses on tokopedia.com.
3. The readiness of the Cirebon City Government and the citizen of the Cirebon was not similar, it indicated that the services was not used optimally by the citizens, this could be affected by lack of

socialization and research on needs in which it became a reason for the citizens prefer to use other services that were not products of the Cirebon City Government.

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