Smart City: The Implementation Through Smart and Innovative Economy Programs by Empowering Msms in Cirebon City

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Abstract

This study aims to determine and analyze the Implementation of a Smart Economy in the Empowerment of Micro, Small, and Medium Enterprises Cirebon City towards a Smart City. The method used in this study is a qualitative method with a descriptive approach. The data collection techniques used are observation, interviews, and documentation. The results showed that 63 Smart City programs in Cirebon City have been made, but not all programs can be implemented due to several obstacles mentioned. Programs that have been implemented, there are two programs that focus on empowering micro, small and medium industries in Cirebon City, these programs include Micro, Small, and Medium Enterprises Development Go Online, Micro, Small, and Medium Enterprises and Center Development. The supporting factors are, Cirebon City Micro, Small, and Medium Industry have potential, access in Cirebon City is very easy, Cirebon City has been branded as a trade and service city, and there is a strong commitment between regional device organizations. While the inhibiting factors are, Attitude of the parties, limited human resources, limited source of funds, lack of digital literacy, and cultural factors.

Keywords: Smart Economy, Empowerment, Smart City.

A. Introduction

The smart city concept was born in 1998 (Van Bastelaer, 1998), but the meaning of the concept and its context are still confusing (Albino et all, 2015), because the definition ranges from the perspective of information and communication technology (Tcholtchev & Schieferdecker, 2021); ICT attributes in cities (Silva, B. N., Khan & Han, 2018); urban life laboratory (Levenda, 2020); the intelligence footprint of a city, as measured by indices such as, the education level of its residents, its innovative spirit of enterprise (Giffinger et al., 2007). The term smart city appeared in early literature in 1998 (Van Bastelaer, 1998; Mahizhnan, 1999) from urban simulation and knowledge base and is still developing into an eco-friendly city (Javed, et all, 2022).

Gagliardi et all (2017) concluded that the smart city concept facilitates interaction and dependence on one another between the community and service providers (Local Government). One dimension of a Smart City is a smart economy. As said by the Head
of the Cirebon City Informatics and Statistics Communication Service, there are six dimensions implemented in the Cirebon City Smart City program, these dimensions include Smart Governance, Smart Branding, Smart Economy, Smart Living, Smart Society, Smart Environment.

This paper focuses on one of the dimensions of Smart City, namely the Smart Economy. Smart Economy focuses on improving the local economy through the use of digital innovation and technology (Kalenyuk et al., 2021). The objective of the Smart Economy dimension in Smart City in Cirebon City is to create an ecosystem that supports community economic activities, which is in harmony with regional leading economic sectors that are adaptive to changes that occur in the current information age, as well as increasing community financial literacy through various programs. Therefore, this Smart City is a joint commitment of related agencies, and the people of Cirebon City to make the information service system easier.

The Smart Economy is an economy that is flexible and capable of generating high added value through knowledge, entrepreneurial innovation (creativity), green growth (responsibility), and competition (openness). Smart Economy can also handle economic challenges, create jobs, and establish new businesses, and increase regional competitiveness (Vinod Kumar & Dahiya, 2017).

The City of Cirebon on the Smart Economy dimension has two programs in community empowerment, these programs are Development of MSMEs Go Online and Development of MSME Centers. These programs are under the auspices of the Office of Cooperatives, Small and Medium Enterprises, Industry and Trade of the City of Cirebon. One of the movements of the Go Online MSME development program is the Go Digital entrepreneur training, where this program is a training program given to MSMEs actors and the community in Cirebon City. Then the movement of the MSMEs Center Development program, namely the SMEs Mall Development (Serving You Through Small and Medium Enterprises Services), where the function of this SMEs Mall is a container or display of products created by MSMEs Cirebon City. This paper aims to identify and analyze the Implementation of Smart Economy in the
Empowerment of Micro, Small and Medium Industries in Cirebon City towards Smart City.

B. Literature Review

Smart Economy

Kumar & Dahiya, 2017) defined Smart Economy is an economy that has high value that is flexible and competitive (openness) based on ability, entrepreneurial innovation (creativity) as well as social responsibility and green growth (responsibility answer). Smart economy is characterized by the ability to master economic challenges, create jobs, establish new companies and increase regional attractiveness and competitiveness. Smart economy is the area where the new economic phenomena take place. Meanwhile Popova & Popovs, (2022) defines smart economy as an area where new economic phenomena occur.

The economy is one of the mainstays of a region/city/country. Regional economic administration must be improved and computerized. The implementation and evaluation of Smart City on the Smart Economy dimension covers two topics, namely the process of innovation and competitiveness. Both are beneficial for the development of a better and smarter nation's economy, because innovation and competitiveness are the main drivers behind progress and increasing a nation's resources. The direction of regional resource development is realized by increasing the availability, equity, relevance, and quality of basic social services, increasing the quality and competitiveness of the workforce, controlling the number, growth rate, and increasing community participation. In other words, a smart economy is the development of economic governance that is able to face the challenges of the times and is adaptive to change so as to create an ecosystem that supports people's economic activities in harmony with the leading regional economic sectors. Smart Economy in the context of a smart city can also be called a concept in which an economic activity is carried out in an integrated and innovative manner in an effort to realize the goal of a smart city.

Bilgah, et all., (2022) states that an area can be said to have implemented the Smart Economy concept, which can be seen from the economic values in that area, for
example the level of income and welfare of its people, the development of its economic
development, and its trade-economic relations with the region or another country.
Usually regions that have implemented this concept have also been supported by
intelligence and technological advances in the area.

**Micro, Small and Medium Industry Empowerment**

Empowerment comes from the word power, which means ability or strength. Empowerment is a process of giving power (power) to a community or group of people to act to overcome their problems, as well as to raise their standard of living and welfare (Coy et al., 2021).

According to Yin et al., (2019), empowerment is a method or method used by individuals, groups, and/or communities so that they become able to manage the environment to achieve their own goals. Chebbi et al., (2020), empowerment is an effort that allows people, groups or communities to take care of their own interests independently. The essence of empowerment can therefore be described as creating self-confidence for individuals, groups and society.

In other words, empowerment can be interpreted as a process of empowerment, or a process of transferring power/ability from those who have power to those who are powerless or less powerful. It can be said that the fruit of empowerment is awareness of talent or ability, independence and commitment. Awareness of hidden talents, skills, independence and commitment are human values that can be optimized in the development process.

The empowerment referred to in this paper is how to implement Smart Economy in Empowering Industry, Micro, Small and Medium Enterprises in Cirebon City towards Smart City. Thus, it can be concluded that empowerment is a process and a goal. From a process standpoint, empowerment is a series of activities to strengthen the power or empowerment of weak groups in society. In terms of goals, empowerment leads to the conditions or results to be achieved by social change, namely people who are competitive and have power or have the knowledge and ability to fulfill their needs both physically, economically and socially such as having self-confidence, being able to
convey aspirations, have a livelihood, participate in social activities, and be independent in carrying out tasks in daily life.

**Smart City**

Apanaviciene et al., (2020), Smart City concept is the concept of developing an environment where people in the regional area can interact and share knowledge, experience, and common interests. Kutty et al., (2023), Smart City is a city that is able to identify problems early on based on the data it has to make better decisions in the process of prevention, mitigation, and development by collaboration on every entity and domain.

Hämäläinen, M. (2020), Smart City is a concept regarding the layout of a city in optimizing information and digital technology to improve people's welfare and happiness, as well as improve government services so as to reduce and reduce costs, time, and energy. In line with this definition, Jaelani et al (2019) stated that smart cities can improve services quickly to the public in accessing information.

Meanwhile, according to Caragliu & Del Bo (2019), Smart City is an innovative city concept that utilizes technology, communication and other technologies to improve the quality of life, efficiency of city implementation and services, and increase the competitiveness of a city and is able to support the needs of the current and future generations. Future with economic, social and environmental aspects.

**C. Research Methods**

The method used in this study is a qualitative method with the descriptive approach proposed by John W. Creswell (1999), descriptive research studies problems in society, as well as procedures that apply in society and certain situations, including the relationship between activities, attitudes, views, and ongoing processes and the influence of a phenomenon. In other words, this research is research that seeks to describe an object or subject under study in accordance with what it is. Data collection techniques were used in a triangulation (combined) observation, interview, and documentation, data analysis was carried out inductively, and the results of qualitative
research emphasized meaning rather than generalization. Qualitative research collects in-depth data, therefore, qualitative research emphasizes meaning over generalizations. Secondary data was obtained from the Cirebon City Office of Cooperatives, Small and Medium Enterprises, Industry and Trade, Cirebon City MSMEs Actors, and the Cirebon City Communication, Informatics and Statistics Office, as the leading sector in Cirebon City Smart City Implementation.

D. Result and Discussion

Smart City Program of Cirebon City

Based on the Smart City Masterplan that has been made by the Cirebon City Communication, Informatics and Statistics Service in collaboration with related Stakeholders and Agencies, 63 programs have been obtained up to 2022 in the 2017-2028 period from each Smart City dimension. These programs are:

Smart Governance, (1) Development of Legislation and Policy Information Service Portal (Cirebon JEH); (2) Development of Personnel Administration and Integrated Performance Evaluation (Cirebon SEGA JAMBLANG); (3) SIMPENDA (Regional Income Information System); (4) Implementation of Participatory and Open Development Planning (E-Musrenbang), as well as Supported by Aspiration Channels (E-Aspirations), and Development Monitoring (E-Monitoring) based on Information and Communication Technology; (5) SIRAGAYA (Cultural Conservation Registration Information System); (6) Population Administration Services (Cirebon Brojol Aja Klalen); (7) Implementation of Office Administration Paperless (E-Office); (8) Handling Public Complaints and Providing Responses in a Short Time and Good Satisfaction (LAPOR); (9) Integrated E-Government Services, Accompanied by Enterprise Service Bus Development for Interoperability and One City Public Information Service Portal (PORTAL SATIN CIREBON PASTI WERU); (10) Integrated Executive Information System (EIS) with Geographical Information System (GIS) and Decision Support System (DDS); (11) Development and Management of the Cirebon Command Center; (12) Management of Development Data in the CIREBON ONE DATA System that Meets the Principles of Public Information Disclosure; (13) Optimization of Online and
Integrated Licensing Services (PTSP-Online); (14) SIMASREKAMAN (Funeral Retribution Management Information System); and (15) Online Kelurahan Administration Services (CIREBON SEDULUR).

**Smart Branding**, (1) Preparation of the Cirebon City Tourism Master Plan; (2) Development of the WISTAKON (Cirebon City Tourism) Program Development and Marketing of City Faces; (3) Empowerment of Art Studios; (4) Growing Tourism Awareness Groups; (5) Formation of Cirebon City Tourism Ambassadors; (6) Launching CITROS (Cirebon Tourism On Bus); (7) Revitalization of Commercial Image; (8) Cirebon City Branding; and (9) Development of a FRIENDLY Cirebon City Landmark.

**Smart Economy**, (1) Development of SIPEKA (Job Vacancies Information System); (2) Development of UMKM Go Online; (3) Development of MSME Centers; and (4) E-Tuku.

**Smart Living**, (1) Development of Cirebon LENGKO (Online Health Electronic Services): Android-based Online Queuing Service System; (2) Development of Resident Health Visit System; (3) Development of Inpatient Room Availability Information System at Gunung Jati Hospital; (4) Development of Independent Outpatient Services for BPJS Participants at Gunung Jati Hospital; (5) E-Puskesmas services; (6) Development of the ATCS (Area Traffic Control System) system; (7) Development and Management of Smart Parking; (8) Development of E-Transportation; (9) Provision of Integrated and Convenient Public Transportation to the Entire City Area; and (10) Development of a Participatory and Online Spatial Planning System.

**Smart Society**, (1) Development of E-Musrenbang; (2) Implementation of Integrated Digital Literacy with Formal Education Institutions; (3) Provision of Digital Books; (4) Implementation of PPDB Online; (5) Development of E-Schooling; (6) Efficient Learning Ecosystem Development Program; (7) Integrated E-Library Development; (8) Mother of Literacy; (9) Provision of CCTV in every corner of the city; (10) Development of a Fast-Response Panic Button System; and (11) Cirebon Siaga 112.

**Smart Environment**, (1) Development of Integrated PJU through Smart PJU; (2) Development of a Garbage Bank Information System; (3) Provision of Integrated and Child-Friendly Green Open Spaces; (4) Formation of the Environmentally Friendly RW
Movement; (5) Urban Forest Expansion Development; (6) Implementation of Restoration of Critical Areas and Rivers with Residents (Coastal Areas); (7) KUDU ELING Program; (8) PROKLIK (Climate Village Program); (9) Jagakali Festival; (10) Mobile TPS; (11) Garbage Bank; (12) Latrinization; (13) WWTP (Wastewater Management Installation); and (14) Development of an Integrative Drainage System.

Based on the results of the research, the programs that have been created jointly by the Cirebon City Communication, Informatics and Statistics Service and the related offices above, not all programs can be realized until 2022. Below are programs that have not been realized in the Smart City program and their constraints, including:

Based on the results of interviews with related agencies, the obstacles are:

**Commercial Image Revitalization**

**Smart Branding**, (1) the Kalitanjung Market which is part of the revitalization plan is a thematic market; (2) Based on the results of a field survey, the former Kalitanjung Market did not have an embryo as a people's market and there were no buying and selling activities; and (3) Unavailability of counterpart funds in the 2022 Fiscal Year APBD.

**Development of E-Transportation**

**Smart Living**, Limited budget and data for city transportation D1-D8 which are decreasing and the low number of people using public transportation in the city of Cirebon.

**Development of a Garbage Bank Information System**

**Smart Environment**, (1) There is no competent Human Resources in the field of Informatics; (2) There is no budget for the Garbage Bank information system development program; and (3) Not yet in orderly administration at each waste bank, making it difficult to record waste bank data.

**Urban Forest Expansion Development**

**Smart Environment**, (1) Limited availability of land in Cirebon City to increase the area of the Biodiversity Park because based on the Regulation of the Minister of Environment of the Republic of Indonesia that the minimum area of the City Biodiversity Park is 3.0 - 4.9 Ha; (2) CSR that has been running has not been able to
accommodate all needs; and (3) the existing Biodiversity Park in Cirebon City is currently not optimally managed as a pilot project for the development of other Biodiversity Parks.

**Development of Integrative Drainage System**

**Smart Environment**, (1) Budget which is a priority for this system; (2) Unable to accommodate excess water discharge during rainfall; and (3) to be more active in consolidating utilities in the drainage system.

**Smart City Program Implemented in Micro, Small and Medium Industries in Cirebon City**

The smart city program that was created covers all existing dimensions, namely Bureaucratic Governance (Smart Governance), Regional Marketing (Smart Branding), Economy (Smart Economy), Residential Ecosystem (Smart Living), Community Environment (Smart Society), and Maintenance Environment (Smart Environment). From each of these Smart City dimensions, all of them are priority programs for better change. However, the author only focuses on the Implementation of Smart Economy in Empowering Micro, Small and Medium Industries in Cirebon City towards Smart City. Where the author only identifies and sees the empowerment of Micro, Small and Medium Industries in the City of Cirebon from the aspect of the Smart Economy dimension in the Smart City program.

Smart Economy, known as smart economic governance. The goal of this smart economy governance is to make the economic ecosystem in the area able to overcome challenges in the unstable information age and demand rapid adaptation as it is today. The creation of an ecosystem that supports people’s economic activities in line with the leading regional economic sectors that are adaptive to changes that occur in the current information age is the goal of the Smart Economy dimension in Smart City. In addition, increasing public financial literacy through various programs including creating a less cash society. This target is realized by developing three elements in the Smart Economy, namely the industrial ecosystem, improving people’s welfare, and the financial transaction ecosystem.

Below are Smart City programs in the Smart Economy dimension, namely:
Development of MSMEs Go Online

According to the explanation from the Head of the Office of Cooperatives, Small and Medium Enterprises, Industry and Trade for the City of Cirebon, Iing Daiman, said that: in 2019 MSME Go Online training had been carried out for 2000 MSMEs in Cirebon City which was the first step to guiding Cirebon City MSMEs to expand the market through the online market and continued with online marketing assistance for MSMEs products during the Covid-19 pandemic. In 2022 the Go Online MSME Development program will be implemented through the Perwira H. Godi (Go Digital Entrepreneurial Training) program, namely digital literacy training on introduction to the digital world, digital ethics, digital competence, digital culture, and digital security. In addition, entrepreneurship training is also provided in the form of digital marketing, digital financial management, access to capital, and digipreneurs. This program/activity is expected to provide understanding to the community, especially MSMEs actors, about the importance of digital world awareness, especially in developing MSMEs in Cirebon City.

This program is run by the Office of Cooperatives, Small and Medium Enterprises, Industry and Trade of the City of Cirebon in collaboration with OPD or Education Agencies for resource persons in go digital training. There needs to be cooperation with the Cirebon City Communication, Informatics and Statistics Office or lecturers as academics who understand digital-based marketing science.

Based on the results of the research, the obstacles faced by this program are (1) Lack of information about the MSME Go Online Development Program, (2) Not all MSMEs are aware of the importance of understanding in the digital world, and (3) Not all universities have collaborated with Office of Cooperatives, Small and Medium Enterprises, Industry and Trade.

Suggestions or implementation plans for solving problems in the Go Online MSME Development program, namely (1) Socializing the implementation of the Go Online MSMEs Development program to MSMEs actors, (2) Establishing cooperation with Universities in Cirebon City in implementing the Go Online MSME development
program, and (3) Continue to schedule technical guidance for the Go Online MSME Development program every year for different target participants.

Based on the theory of policy implementation according to G. Shabbir Cheema & Dennis A. Rondinelli (1983), the Go Online MSME Development program can already be said to be very good in terms of environmental conditions, inter-organizational relations and the characteristics and abilities of its implementing agents. According to Iling Daiman:

This is due to the environmental conditions in which the policies are implemented, the relationships between organizations, as well as the characteristics and capabilities of implementing agents which are very supportive in line with technological developments including the empowerment of IMKM in Cirebon City. However, there are still some resources in this program who do not have awareness.

Development of MSME Centers

Iling Daiman further explained that:

The MSME Center Development program is an effort to provide a platform for MSMEs actors to be able to market their products. In 2021 an MSMEs Gallery has been provided at the Office of Cooperatives, Small and Medium Enterprises, Industry and Trade in the City of Cirebon and at the MSMEs center in Kejaksan Square where MSMEs actors can display their products, for the product buying and selling process assisted by the Cooperatives Office, Small and Medium Enterprises, Industry and Trade in Cirebon City. Then in 2022 an SMEs Mall (Serving You Through Small and Medium Enterprises Services) will open, namely a facility provided by the Regional Government of Cirebon City through the Office of Cooperatives, Small and Medium Enterprises, Trade and Industry of Cirebon City for MSMEs business actors in increasing the marketing of their products the resulting product. Through the SMEs Mall, it is hoped that it can optimize the potential of MSMEs and improve the regional economy. SME Mall (Serving You Through Small and Medium Enterprise Services) consists of several units, namely: Product Display (Shop); SMEs DIGICORNER a place for taking product photos, training on making product captions/content; The CIREBON DIALECT Podcast Room (Cirebon City Economic Dialogue) is a place for sharing with various sources from various educational backgrounds; POTRET KITA Room (Creative Corner Sharpening Talents) is a place for training in batik, knitting, painting, and handcraft making.

This program is run by the Office of Cooperatives, Small and Medium Enterprises, Industry and Trade of the City of Cirebon in collaboration with several parties in several activities, namely, (1) HARBOLKUM Activities (MSME Online Shopping Day) in collaboration with KPP Pratama and OJK, (2) Activities The UKM Kelemprakan Mall (Bazaar for Basic Community Needs) collaborates with the Cirebon City TAPD Team, Transmart, PPI, APINDO, and Indomaret which are held on Fridays
every 2 weeks, (3) an MoU has been established with PT. PELINDO to direct guests on their working visit to shop at the MSME Mall.

The obstacles faced in this program are (1) there are still incomplete facilities and infrastructure, (2) the existence of the SMEs Mall is not known by the whole community, (3) MSME actors lack knowledge or skills in business management, (4) Inefficient management, such as problems in inventory management, finance, or human resources, can hinder MSMEs growth and success within the SME Mall. These obstacles are in line with the results of Layaman et all (2020) research that this is a common problem that is often faced by small and medium businesses.

From the constraints mentioned above, suggestions or plans for implementing and solving problems in the program can be taken, namely (1) completing facilities and infrastructure through CSR from external parties, (2) increasing outreach and promotion in various media, (3) increasing synergy and collaboration with various parties, and (4) providing guidance to MSME actors to better understand supply chain management.

The positive impacts of the existence of the SMEs Mall are: (1) increasing sales and competitiveness of MSMEs products, (2) increasing the local economy, (3) increasing public awareness of local products, (4) increasing the quality of local products, (5) attracting investors, (6) reducing dependence on imported products, and (7) increasing public knowledge.

Supporting Factors and Inhibiting Factors for Smart City Implementation

According to Iing Daiman, factors that support the implementation of Smart City on the Smart Economy dimension in empowering Micro, Small and Medium Industries in Cirebon City are:

1. MSMEs in Cirebon City have potential. Although there are not as many as in Cirebon Regency, Cirebon City SMEs have more potential and it is hoped that Cirebon City SMEs are creative and innovative.

2. Access in Cirebon City is very easy, so it can make it easier for visitors from outside the city to come to Cirebon City. For example, there are trains, toll roads, even
flights, although not directly to Cirebon City, meaning that people from anywhere are very easy and very easy to visit Cirebon City.

3. Cirebon City has been branded as a city of commerce and services.

4. There is a strong commitment between departments. Mutual support to realize the Smart City program. Including when there is a need for academics and other agencies to really help implement the Smart City program.

Meanwhile, the factors hindering the implementation of Smart City in the Smart Economy dimension in empowering Micro, Small and Medium Industries in Cirebon City are:

1. Attitude of the parties, like bureaucrats. Until now, they are still experiencing a service position that is less than optimal, not fast enough, and not quite right. Because what is being taken care of is not only MSMEs, there are many other focuses that must be done.

2. Limited human resources. Not only from stakeholders, the community also contributed. The large number of people with minimal digital literacy, because there is no will or no ability carry it out.

3. Limited sources of funds. What is really felt, starting after the Covid-19 pandemic, was not only the Cirebon City government, but there was a relative decline in financing.

4. Lack of digital literacy. There are several stakeholders and MSMEs actors who do not know about the rules and even the Smart City program. That is the importance of communication, publication and outreach, all of which must be carried out massively. So people who don't know should ask stakeholders, and vice versa, stakeholders who don't know anything related to government or Smart City are required to ask questions.

5. Cultural Factors. Changes in habits that were completely manual are now completely information technology. This is also an obstacle because not everyone is easy to make changes.
E. Conclusion

1. Cirebon City Smart City Programs are programs that have been created by the Cirebon City Communication, Informatics and Statistics Office together with related agencies. The Smart City master plan for Cirebon City includes Smart City programs, as well as short-term, medium-term and long-term program plans. 63 program activities were produced and 5 activity programs that had not been realized with several obstacles encountered, starting up to 2022 in the 2017-2028 period.

2. The implementation of the Cirebon City Smart City program in the Smart Economy dimension includes, among others, the Development of MSMEs Go Online and the Development of MSME Centers has been going well, even though there are some deficiencies, these programs must be implemented for the success of the City of Cirebon in implementing the Smart City program.

3. Supporting factors in the implementation of Smart City are: (1) Cirebon City MSMEs has potential, (2) Access in Cirebon City is very easy, (3) Cirebon City has been branded as a city of commerce and services, and (4) There is commitment between agencies. Then the inhibiting factors in implementing Smart City are: (1) Attitude (attitude) of the parties, (2) Limited human resources, (3) Limited funding sources, (4) Lack of digital literacy, and (5) Cultural factors.

References


