Chapter 1
Smart City Development in Korea and Its Implications for Cooperative Governance

Yeoul Hwangbo
Tashkent University, South Korea

ABSTRACT

This chapter dealt with the characteristics, the governance structure, policy-making process, the main thrusts, and regional governance of Korean smart cities. Korea defined a smart city as a platform to improve the quality of life for citizens, enhance the sustainability of cities, and foster new industries by utilizing innovative technologies of the Fourth Industrial Revolution era. The smart city consists of three components including technologies, services, and applications, and legislation. Ministry of Land, Infrastructure, and Transport has been in a position to play a leading role in developing smart cities and has accordingly been pushing for deregulation while other ministries have been devoted to the programmes under the inter-agency collaboration framework. The Seoul smart city initiatives are reviewed in terms of policy process including policy formulation, policymaking, policy implementation, and policy evaluation. The chapter also suggests ASEAN regional cooperation types in response to the COVID-19 pandemic.

INTRODUCTION

The UN (United Nations, 2018) estimated that the world's population would be on the rise from 5 billion to 9 billion, with the urbanisation rate reaching up to around 70% by 2050. Urban life will become increasingly attractive than has historically been the case. Asia region has been more urbanised than other regions. Korea is confronted with several challenges over rapid urbanisation: while world average urban level is 54%, that of Korea reached 82.5% as of now (Seoul, 2020). City governments increasingly need innovative arrangements to solve a variety of technical, physical, and social problems. Meanwhile, Korea's smart cities have been gradually expanding and evolving to adapt to changes in circumstances. Associated with the innovative arrangement, a smart city is transforming the way to live in urban. Likewise, rapid

DOI: 10.4018/978-1-7998-8524-5.ch001

urbanisation continues to cause densely populated cities in city and excessive resources consumption and various social problems such as traffic congestion, water shortage, disaster, and infectious disease, facing up to serious threats to a city sustainability. The continuous increasing of city's population and the complexity of city management drive governments towards the strong use of technologies to support a higher quality of urban spaces and a better offering of public services. Countries around the world are paying attention to their smart cities as new vehicle to solving urban problems, and making efforts to develop smart cities in line with the fourth industrial revolution (the 4th IR).

The chapter is designed for policy-maker, practitioners, industries, scholars, and students to be equipped with relevant knowledge and skills to implement smart cities projects, with particular emphasis on Southeast Asian Nations (hereafter ASEAN) smart cities, with the objectives to identify (i) significant implications by different cases of smart cities in Korea, (ii) core components of a smart city, (iii) challenges posed over smart city initiatives; and (iv) collaborate governance architecture for ASEAN Smart Cities Network (ASEAN, 2018). Though there have been researches and implements of smart cities, these are unlikely to deal with smart cities in terms of (i) holistic policy process comprising policy formulation, policy making, policy implementation, and policy evaluation, and (ii) global governance. Recognising this above research gap, this chapter raises three research questions: (i) what are the characteristics and challenges of Korea's smart cities? (ii) how has smart city policy been mapped out in Korea? and (iii) how will the regional collaboration of ASEAN be constructed in response to infectious diseases such as the Covid19 pandemic? This chapter is mainly based on a qualified research where case study method mainly was conducted in a way to interview with the government officials in charge of the smart city projects and its subject matter experts who have experiences in designing and implementing Korea's smart cities projects. The author participates in monitoring the smart city projects. as a citizen's member of the Seoul smart city.

DEFINITIONS, COMPONENTS, CLASSIFISATION, AND CHALLENGES OF SMART CITY

Smart City Definitions

There have not been developed an internationally-agreed guideline and indicators for a smart city. Likewise, the lack of a shared definition of smart city makes it difficult to understand a smart city in a holistic manner. Different countries and organisations are likely to have different definitions for a smart city: a smart city is defined in various ways to explain the terms reflecting their circumstances, and for the definition of a smart city, countries have a wide spectrum ranging from new city development to urban regeneration.

A common theme to most definitions is the utilization of information and communication technologies (ICT) as an enabler to support city development, enhance urban services, and increase stakeholder access to information. Using this theme as a defining element, a smart city is quickly emerging around the world with city-wide investments in ICT to drive technological innovation, supporting the development of new industries, spurring a stronger economy, to maintain a sustainable environment, and to enhance the quality of life of citizens (Kincho, 2019).

OECD (2018) defined a smart city as an initiative or approach that leverage digitalisation to boost citizen well-being and deliver more efficient, sustainable and inclusive urban services and environments