

SMART CITY IMPLEMENTATION IN INDONESIA: TRENDS, CHALLENGES, AND OPPORTUNITIES

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Abstract

The implementation of the Smart City concept in Indonesia is growing, focusing on the use of information and communication technology to improve the efficiency of public services and the quality of life of urban communities. Positive trends can be seen from the various projects that have been launched in major cities such as Jakarta, Surabaya, and Bandung, as well as government support and private sector involvement. However, Smart City development in Indonesia still faces a number of challenges such as the digital divide, uneven infrastructure, and regulations that are not yet fully supportive. Nevertheless, the opportunity to scale up Smart City implementation remains great, especially with multi-stakeholder collaboration and increased public awareness. By overcoming these challenges, Indonesia has the potential to successfully transform its cities into more efficient, safe and sustainable Smart Cities.

Keywords: Implementation, Smart City, Indonesia, Trends, Challenges, and Opportunities

Introduction

The development of information and communication technology has created new opportunities for many countries, including Indonesia, to implement the Smart City concept. The Smart City concept is a vision of urban development that integrates information and communication technology (ICT) with various elements of the city to improve operational efficiency, quality of public services, and community welfare (Lockwood, 2020). In a Smart City, digitally connected devices and systems are used to collect, analyse and manage real-time data, which is then applied to optimise various aspects of urban life, such as transportation, energy, infrastructure, health, education and security. The main goal of this concept is to create a city environment that is more sustainable, convenient, and responsive to the needs of its citizens, so as to improve the quality of life and support inclusive economic growth (Khan et al., 2020).

Indonesia, as one of the countries with high urbanisation rate, faces various urban challenges such as congestion, air pollution, security, and inefficient resource management. With that, the urbanisation rate in cities shows an increasing trend in the number and proportion of people living in urban areas compared to rural areas (Vyas &