


# Chapter 12

## Information Frameworks and Business Patterns in Smart Cities

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### ABSTRACT

*There are two methods for cities to become “smart cities” in the Netherlands: one puts commercial models ahead of information architecture, while the other goes in the other direction. With regard to service improvement, resource allocations, and the sustainability of business expansion, the authors selected two cities to explore the fundamental distinctions between these two methods. While the second instance began with the creation of a system which acted as a technological framework to make alterations in commercial processes, the initial instance concentrated on producing marketing benefits via the utilization of technology by upgrading current resources and/or delivering newer ones. With additional innovative services made accessible to the general public, the authors discovered that the initial scenario increased company value more quickly. The second scenario, in comparison, required more resources and moved more slowly toward providing newer resources to the broader public, but the services were far better and more long-lasting.*

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## **INTRODUCTION**

Governments at all levels, including the federal, state, and municipal levels are increasingly using cutting-edge technology (Chatterjee et al., 2022) to alter how they connect with their constituents. The changes that support the development of a smart city, however, present a number of complications, such as choosing the type of newer solutions to build up and which business framework to embrace (for example, is it possible for a citizen-centered technique to furnish a strong framework in the growth of newer facilities); what are the procedures by which newer facilities and/or business frameworks alter the traditional models and influence the current information configuration (for example, can we generate newer amenities without being inhibited by the existing information architecture).

Smart cities need a novel collection of services that educate all residents and companies regarding various facets of urban activity through interactions, city-specific, internet-dependent apps, allowing for all possible forms of transaction. Cities are becoming more conscious of the need for new economic models for providing services to its citizens in order to implement smart cities. The combination of many commodities into a lone solution, the recycle and real-time opportunity of knowledge, the simplicity of communication and consultation with governmental organizations are just a few of the new expectations that inhabitants and industries have for what their municipalities have to provide them. The business models (Reuschl et al., 2022) are influenced by these assumptions. A public organization's primary objective and strategy serve as the foundation for its economic model, which provides the justification and components necessary for the job to be completed effectively, and it captures that rationale to create value. The reasoning discusses how information architecture (referred to as architecture in this work for short) and agency strategy interact to both empower and constrain business models. As a consequence, if smart cities are to be realized, the supporting business cases must cooperate having the basic information architecture.

This begs the issue of how regional administrations may alter their business models and information infrastructures in order to satisfy their constituents' expectations. According to Das and Das (2022), the single most significant problem confronting governments now is preparing the transition to e-government. Numerous researchers have noted different development phases. Four development phases are identified by (Schoormann, Stadtländer, & Knackstedt, 2022), who primarily concentrate on the civic extent. They don't examine newer corporate frameworks and information architecture, despite the fact that they describe these phases related to the different degrees of combination and complications involved.

In order to modernize their online business processes, several municipalities in USA are approaching the idea of smart cities. This has a huge influence on a variety of the civic, commercial, and governmental ties which support city life. Various associations are approaching toward the setup of a smart city business modeling, whether on purpose or not. When a business seeks to furnish a comprehensive variety of facilities both straightforward and by means of partners that control the client connection, this is known as a Smart City Provider (SCP) (Rejeb et al., 2022). This concept incorporates cooperation across a variety of departments, including formerly unrelated businesses, to provide all services in a single location, and simplifies consumer connection via direct information and service providing. Regardless of its apparent attractiveness, the SCP model may not be appropriate for various categories of communal organizations and needs additional processes and corporate-dependent technology adjustments.

Such a large-scale project's conception and execution are labor-intensive and risky undertakings. This is especially true given the number of agencies involved in the needed activities and resources, as well as the likelihood that each agency will have its own heterogeneous collection of systems that will cause

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