Designing Smart City Maturity Level Mapping

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Abstract.

Social profiling and intelligent cities are two concepts that are inextricably linked. As a result, many crucial factors to consider while creating a smart city and social profiling include investors, people, culture, supervision, customers, data, mapping, mentors, capabilities, advertisements, and leadership. This article will establish intelligent city maturity level mapping to create and produce social profiling. The key issues are those related to developing smart cities in terms of technology, human resources, and other aspects. As a result, intelligent city maturity level mapping is a concept for social profiling development that emphasizes building on what the region already possesses. It aims to raise the level of a more stable economy while being adaptable in particular circumstances. This article also strengthens the preceding one on intelligent cities 5.0 (human resources, technology, and marketing). These three aspects later evolved into social profiling, which is valuable for assessing the success and implementation of smart cities in a more structured, systematic, and detailed manner regarding profiles. The result is the maturity level used to gauge a smart city's success, linked to the defender, extender, dodger, and contender.

Keywords: Smart city, Maturity level, Business mapping, Designing, Implementation

Abstrak

Profil sosial dan kota pintar adalah dua konsep yang terkait erat. Akibatnya, ada banyak faktor penting yang harus diperhatikan saat membuat kota pintar dan profil sosial, termasuk investor, orang, budaya, pengawasan, pelanggan, data, pemetaan, mentor, kemampuan, iklan, dan kepemimpinan. Untuk membuat dan menghasilkan profil sosial, artikel ini akan membuat pemetaan tingkat kematangan kota pintar. Isu-isu kuncinya adalah yang terkait dengan pengembangan kota pintar dari segi teknologi, sumber daya manusia, dan aspek lainnya. Oleh karena itu, pemetaan tingkat kematangan kota cerdas merupakan konsep pembangunan profil sosial yang menekankan pada apa yang telah dimiliki oleh suatu wilayah. Ini bertujuan untuk meningkatkan tingkat ekonomi yang lebih stabil sambil beradaptasi dalam keadaan tertentu. Artikel ini juga memperkuat artikel sebelumnya tentang kota pintar 5.0 (sumber daya manusia, teknologi, dan pemasaran). Ketiga aspek ini kemudian berkembang menjadi profil sosial, yang berguna untuk menilai keberhasilan dan penerapan kota pintar secara lebih terstruktur, sistematis, dan terperinci dalam hal profil. Tingkat kedewasaan yang digunakan untuk mengukur keberhasilan kota cerdas, yang juga terkait dengan bek, ekstender, pengelak, dan penantang, adalah hasil akhirnya.

1. Introduction

Smart cities are crucial right now if we want to alter people's lives. It is vital to Properly use concepts like the smart city definition and its connection to social entrepreneurship. So that social entrepreneurship may effectively integrate with the development of a smart city, this article emphasizes how to apply social profiling, a component of a smart city. Furthermore, it's crucial to consider how a smart city will be improved in terms of performance quality. Therefore, three topics will be covered in this article: a business model that will help map out a city or region's strengths and weaknesses; social profiling related to the characteristics of the city or region and the people who have influence; and finally, the maturity level of a city or region,

including whether a smart city can be implemented and, if one already exists, how to improve its performance.

As a result, we must first have a proper understanding of the terms "smart city," "social entrepreneurship," and "maturity level." This concept was developed from many publications that can map maturity levels for social profiles and maturity levels in intelligent cities. Among other things, smart cities can be defined as (1) "Smart cities fall into three categories: smart people, smart technology, and smart integrated, with building infrastructure serving as their primary focus." [1],[2]; (2) "Companies require this technology to use in cities as they develop smart cities. It is so that the idea of a "smart city" can be used to identify various technologies and accomplish many varied and vague goals. "[3],[4]; (3) "Data and technology are used in smart cities to improve decision-making. Additionally, smart cities make use of the environment and social infrastructure to grow their partner networks and implement creative governance" [5],[6]; (4) " The term "smart city" refers to creative and sustainable smart solutions that include significant social interaction and provide positive value" [7],[8]; (5) "Smart cities are a global movement that strives to raise population standards and make investments that can be used to combat ideologies and problems"[9],[10]. From this definition, we understand that a smart city is related to social innovation and other things that involve intelligent solutions and how we make the right decisions to improve performance.

The second thing is about social entrepreneurship. This concept is inseparable from a smart city, so we must understand several definitions, including (1) "Adaptation measures a smart economy against international cooperation and change. As a result, social entrepreneurship tied to social responsibility and management must be established. It's going to have a huge social impact"[11],[12],[13]; (2) "A social entrepreneur is a person who grasps novel concepts and works to establish and sustain a business. It needs to be backed by social entrepreneurship, which arises from various fields, including corporate strategy, entrepreneurship, public sector management, education, and social objectives. "[14],[15],[16]; (3) "Social innovation is something that benefits everyone. Social entrepreneurs might thus collaborate with the neighborhood to spread positive social effects. They operate as agents of good change to create a new strategic environment that can foster creativity, initiative, and social entrepreneurship"[17],[18],[19].

Finally, regarding a smart city's performance and maturity level, we must also understand several definitions, including (1) "The growth of a city plan is determined by the smart city's maturity level; as a result, policies and instructions must be made. Correct in deciding which technology the city will use"[20]. Determining which technology is appropriate for implementation and what sort of innovation is appropriate for the city is crucial since technology is a deciding factor in creating a smart city; (2) "Competitive development, as evidenced by notable adjustments to attitudes, goods and services, procedures, technology, and business models. Competitive thinking will promote innovation in business models, production, marketing, and technology. "[21] The idea of the remark is that innovation is necessary, especially in business models, to compete worldwide; (3) "Globalization makes a shift in business models"[22]. The same thing also expressed that global competition demands changes in business models and the way we live our lives; (4) "A region must have important facilities, including (1) data connectivity, (2)) logistics, (3) financial flow connectivity, (4) virtual world network.[23]" An area must have these four important things before applying the smart city concept; (5) "Artificial intelligence is a system that is useful for interpreting external data and studying that data and using this learning to achieve certain goals and tasks through flexible Adaptation. AI implementation is needed to be able to apply the principles contained in a smart city[24]; (6) "The level of critical variable capability must be taken into account when determining the maturity level of a smart city"[25]. Several variables need to be taken into account to determine the level of a smart city; (7) "Comparison of the future between user perceptions and attitudes based on different personality characteristics and demographics needs to be taken into account properly."

2. Research Methodologies

Figure 1. The Roadmap Of research
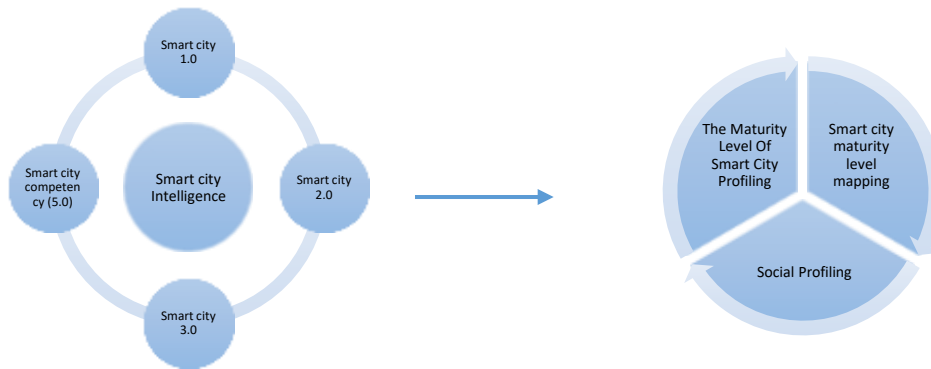
3. Results & Discussions

Figure 2. Framework Smart City Maturity Level Mapping

Figure 2 illustrates the stages of social profiling, with the formula as the initial level. HR = MT.K.C2 where HR (human resource); MT (mentoring); K (knowledge); SC (smart city); M (profiling); T (technology- T1-technology level 1; T2-technology premium); C1 (High-quality competency; C1-level competency; C2-level competency), M = D.P.B2, where M stands for "profiling," D for "differentiation," P for "positioning," B2 for "Brand- B1 for national level, B2 for international level," and T for "technology," I for "integrated," D for "data," and M2 for "maintenance- M1 for high quality, M2 for low quality." These formulas can be combined to create the following formula: SP stands for social profiling, P for profiling, and B for business (B1 for business analysis and B2 for business development). To properly apply this SM formula, it is vital first to understand the advantages and disadvantages of city profiling and whether business management began by boosting local product sales before moving on to a higher level, namely the worldwide market.

Social profiling, which is the second step, covers more specific topics, including culture, client, investor, supervision, data, mapping, and mentor. These seven factors represented the city's core strength and were considered and improved for the deployment of a smart city to be successful.

The third stage: intelligent city profiling, includes three crucial components, human resource competency (availability of human resources), commercial, which is the strength of the profiling (which provides for the number of consumers) in the city, and capital (investors or business owners who have potential for cooperation with the city). These three factors, along with the dodger, contender, defender, and extender concepts, make up the key strengths of a smart city implementation. The third step is crucial because it is here that we will identify the advantages and disadvantages of each city, the goods and services they offer, and the resources essential for putting the intelligent city implementation process into action.

The fourth stage, which is the most crucial, combines these four elements with social and intelligent city profiling to create a Business model mapping 101.

4. Conclusions

This article can draw several conclusions, including the following: 1) Social & smart city profiling are steps taken in creating a smart city in a city or region. To deploy SP and SCP flawlessly, factors like data must be perfect; 2) A new framework called "smart city maturity level mapping" (also known as "Business model mapping 101") helps determine in detail the profile that must be examined first and has answers and solutions; 3) This article will continue on innovation profiling, which is a way to foster innovation in a smart city; 4) The seven criteria that make up the "7s of smart city profiling" are cultural, social, education, technology, business model, market, and implementation. Seven levels exist level 1, none; level 2, unstructured; level 3, initial; level 4, general development; level 5, reasonably good result; level 6, good product; and level 7, high-quality growth.

5. References

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