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Constructing A Smart City Brand Identity: The Case of South Tangerang

Ummi Salamah & Muhammad Rahmat Yananda

Abstrak/Abstract

Kota dan wilayah perkotaan telah menjadi pusat inovasi sejak revolusi industri dan terus berlanjut di era revolusi digital, mengadopsi konsep kota pintar. Kota ini menggabungkan infrastruktur TIK modern dengan pertumbuhan ekonomi, kualitas hidup yang tinggi, pengelolaan sumber daya alam yang bijak serta investasi dalam modal manusia dan sosial melalui pemerintah yang partisipatif. Dengan menggunakan dua pendekatan, yaitu (1) pembangunan daya saing regional dan (2) branding tempat, tulisan ini menganalisis identitas merek kota Tangerang Selatan yang dibangun melalui pengalaman langsung para pemangku kepentingan dan dokumen resmi berdasarkan atribut kota pintar dan indikator yang dibuat oleh Nam & Pardo (2011). Studi ini menganalisis data yang dikumpulkan dari desk research dan wawancara semi-terstruktur dengan 19 informan yang mewakili quadruple helix. Hasil penelitian menunjukkan bahwa Tangerang Selatan memiliki poin kuat dalam dimensi manusia kota cerdas, tetapi masih membutuhkan peningkatan dalam dimensi teknologi dan kelembagaan. Identitas yang dibangun dari persepsi pemangku kepentingan dan data sekunder menunjukkan bahwa Tangerang Selatan adalah daerah perkotaan dan memiliki dasar untuk ekonomi berbasis pengetahuan

Cities and urban regions have become centers of innovation since the Industrial Revolution and continued to be so in the era of digital revolution. This cities adopting the concept of smart city which combines modern ICT infrastructure with economic growth, high quality of life, wise natural resources management as well as investment in human and social capital through participatory government. Employing two approaches, namely (1) construction of regional competitiveness and (2) place branding, this paper analyze the city of South Tangerang brand identities which are constructed via stakeholders' direct experiences and official documents based on smart city attributes and indicators coined by Nam & Pardo (2011). This study analyzed data gathered from desk research and semi-structured interviews with 19 informants representing quadruple helix. The results show that South Tangerang has strong points in the human dimension of smart city, but it still needs improvements in technological and institutional dimensions. Identities constructed from its stakeholders' perception and secondary data indicate that South Tangerang is an urban area and has a basis for a knowledge-based economy.

Kata kunci/Keywords:

Kota pintar, branding kota, kota cerdas, citra kota, kota digital

Smart city, city branding, intelligent city, city image, digital city

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Introduction

Cities are places which reap benefits from density, whether it is the density of activities or people. The density is acquired from the city's geographical position which affects the city's main sectors such as trade, government, and defense. Over time, density then expands to other sectors such as transportation and manufacturing, which are fertile soils for inventions. A city facilitates inventions via interaction and information exchange and in addition, also provides markets as well as manufacturers in case the inventions are to be commercialized. In short, cities become places for inventions and then innovations.

Since the Industrial Revolution, cities and urban regions have become the centers of innovations, driving the industries with myriads of jobs and workers. Theory of economic cycle waves (in

Kim & Short, 1997), reinforced by Perez's (2010), asserts that cities have become technology-based innovation centers and change them based on the type of industries, distinct features of the places, inventions, organizations and types of work. Furthermore, the center role assumed by cities and urban regions prevails in the era of digital revolution. Table 01 below describes the phases of digital revolution compiled by Pattison (2014: 795).

Technological development drove cities and urban regions entering the digital revolution, started with information communication technology (ICT) convergence and the use of the Worldwide Web (www) invented by Tim Berners-Lee who later gave it to public use for free. Worldwide Web in its three versions (namely 1.0, 2.0 and 3.0) is not a mere technology, but it also serves

as a techno-social system since the technology in each version is accompanied by its own supporting social system. No wonder the web was also named social media because it represented what "social" was in its own time.

Web 1.0 is a computer system network based on human cognition. According to Durkheim, cognition is social because the thinking process molded external social world. Web 2.0 is a network of computer systems based on human communication, an act of communication as Weber called it. Last but not least, web 3.0 is a network of computer-based cooperative systems among people in forms of community development and collaborative production according to Tonnies and Marx (Fuch, 2014: 44-45). In short, web 1.0 is about interactions (i.e. Yahoo), web 2.0 is concerned about connectivity (i.e. Google), whereas

Table 1. Phases of Digital Revolution

	Table 1. Phases of Digital Revolution
1971 – 1991 Emergence of ICT	Development of mainframes and minicomputers, software, data communication and networking
	Internet for military and academic use
	Personal computer "democratizes" computing for individual and home use
1991 – 2010	Public/commercial access to the internet
New Economy	Worldwide web (www) as a software creation, storage, sharing and distribution system-and easy public interface to the internet
	Web-Based Business – and social activities – the emergence of e-mail, messaging, e-commerce and e-marketing, search engine, web service
	• Digital Mobile Communication (2G, 3G), broadband for region and countries, switch from speculative to productive investment in digitization (dot. com boom, bust, and recovery)
	• Development web as a platform (Web 2.0) with increasing intelligence and virtual capabilities (semantic web, virtual worlds)
	The emergence of social computing
	The emergence of social media
2011 – 2020 – 30?? Digital Economy	Digital-based, driven and rendered function for education, government, business, organization and social
	Digital rendering of "self"
	High-Speed Mobile Communications driving business (4G, 5G out about equivalent to 8G?), institutional and social development
	Location-based digital business and marketing models
	Analytics everything, big data analysis, cloud computing, e-research based on data-driven discovery and application to thought and action
	Behavior Company
	Augmented reality and immersion blurring creation from reality
	Full digital manufacturing and delivery-FAB and 3D printing, rendering, additive, manufacturing and production

web 3.0 is about collaboration (i.e. Wikipedia) (in Bauwens, 2012: 22). Web 3.0 as a social media system is the forerunner of collaborative urban development and cooperation that strengthens the role of citizens (Yananda, 2017).

This paper aims to explore the identity of South Tangerang in the eyes of its stakeholders. The city residents along with the local government and other stakeholders assume their role as the city brand's owners to create the smart city's identities which are based on differentiation and uniqueness of the city to obtain a competitive identity. The chosen identity is then communicated to build a good image and a strong reputation. The stakeholders are classified using the quadruple helix which consists of Academicians, Business community, Civil Society and Government (Yananda, 2017).

The city's stakeholders - based collaboration is a baseline needed to adopt innovations such as smart city initiatives. South Tangerang is a relatively new city in Jakarta Greater Area. Its newness made South Tangerang local government eager to position this city among other satellite cities in Jakarta Greater Area. South Tangerang is a special case in terms of "new cities". It was once part of Tangerang municipality and is the most urban area of all this municipality due to private property developers' role. 80% of its land are owned by corporations and gated communities can be found all over the areas. The construction of identity – based uniqueness and differentiation which served as baseline for the city brand and then smart city can be quite complicated since the residents are city dwellers.

Literature Review

Smart Cities

Modern ICT infrastructure, coupled with other factors such as economic growth, high quality of life, wise natural resources management and investment in human and social capital through participatory government, are what make a city named a smart city (Caragliu, Bo & Nijkamp, 2011: 70). Though the term smart city often overlaps with other terms such as cyber cities, digital

cities, or intelligent cities, in this paper, the term smart city refers to a combination of a smart city and an intelligent city, that is a smart city with collective intelligence shared in terms of resources, social capital, and human (not machine) collaboration in learning as well as innovations. The city is supported by and utilizes tools in building a smart environment to be a smart city. Below is the definition of terms related to smart city (Schaeffers *et al.*, 2011: 434).

Nam & Pardo (2011) conceptualize the term smart city based on 3 (three) dimensions, namely technological dimension, human dimension and community dimension. The technological dimension is not much different from the explanation above related to smart city, which associates cities with traits (and things related to anything) that is digital, intelligent, virtual, hybrid, ubiquitous, and information – based.

The human dimension of smart cities relates to the concepts of creative city, humane city, learning city, and knowledge city. A creative city is one of the visions of smart city that places human infrastructures, such as employment and creative workers, knowledge networks, voluntary organizations, crime-free environments, and night entertainment, as important axis of urban development. Social capital and talents are irreplaceable in building a creative city as a combination of education/training, arts/culture, and business/trade. Meanwhile, humane city provides opportunities for its residents to explore their potentials and to experience a creative life which focuses on education.

While a smart city can surely attract talented and smart people who will spark a creative culture, as a learning city it improves urban competitiveness in the global knowledge economy. In a learning city, workforces are trained to sustain the knowledge economy. As a knowledge city is somewhat similar to the learning city, this kind of city aims to increase knowledge in loci such as a *technopole* or an *ideapole*. In some ways, a knowledge city is integrated with an intelligent city and education city or smart city.

Table 2. Terms related to The Smart City

	-
Cybercities	From the words cyberspace, cybernetics, governance and control of space based on information feedback, and city administration; but it also means the negative side of cyberspace such as cybercrime, tracking, identification, and military control of the city
Digital cities	From the digital representation of cities, virtual cities, digital metaphors of cities, cities as avatars, cities as "second life", and simulation cities
Intelligent cities	From smart cities, the collective intelligence of urban citizens, distributed intelligence, shared resources, cities with social capital, learning and collaborative innovation, and human-based innovation
Smart cities	From the words smartphones, mobile devices, sensors, embedded systems, smart environments, smart meters, and smart city sustainability instrumentation

The community dimension is the result of the smart growth movement in the 90's. Communities are dubbed as the pioneer in overcoming urban problems such as congestions, air pollution, overcrowded schools, shrinking public spaces, historical sites demolition, and skyrocketing costs of public facilities. A smart city accommodates some of the smart growth solutions, especially the problems caused by urban sprawling. The figure below illustrates the fundamental components of a smart city (Nam & Pardo, 2011: 286).

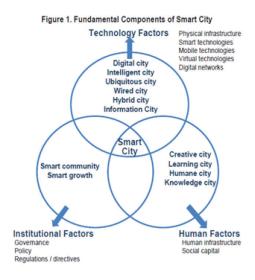


Figure 1. Fundamental Components of Smart City

Based on *Smart Cities Ranking of European Medium-Sized Cities* (2007), a smart city consists of no less than smart economy, smart people, smart governance, smart mobility, smart environment, and smart living. Each of these attributes has its own an indicator in measuring how smart a city is.

Prevailing critiques on smart city mainly highlight corporate domination in its conceptions and practices. Both corporations and governments are suspected of collusion in emphasizing solely their economic interests. "Smart City" was officially registered as an IBM trademark in 2011 and became a dispute among IT companies concerning their visibility and justification over the market since a need to correct and reinterpret the smart city narratives emerged (Soderstrom, Paasche & Klauser, 2014). The concept of a smart city has an ideological perspective. It tends to hide some urban issues and problems behind the advancing information technology, which is believed to make cities more prosperous, equitable, efficient and environmentally friendly all at once. The protocol of smart city is seen as a panacea only if it complies with the corporate version of the concept which encourages entrepreneurial city governance (Harvey, 1989) and accommodates the needs of the citizens as well (Gabrys, 2014).

Corporate – especially global IT (software, engineering, construction, and utilities) companies – domination tends to limit participation from other stakeholders (Haque, 2012; Hill, 2013). When a city declares itself open to businesses, a relatively small room left for ordinary citizens. They can only adjust to the corporate version of smart city accordingly, which in turn making ways to build a condition called "smart mentality" (Vanolo, 2013 in Holland, 2014).

Smart cities development also causes disappointment due to dissatisfaction over existing conditions and corporate performance as the city organizer. Few success stories are those of Songdo, Masdar, and PlanIT Valley, but others such as cases found in Louisiana and Philadelphia show different results (Shelton, Zook and Wiig, 2015) and do not meet expectations (Wiig, 2016).

Table 3. The Smart City Indicators

Characteristics	Indicators
Smart Economy (Competitiveness)	Innovative spirit, entrepreneurship, economic image and trademark, productivity, the flexibility of labor market, international embeddedness, and ability to transform
Smart Governance (Participation)	Participation in decision making, public and social service, transparent government, and political strategies and perspectives
Smart People (Social & human capital)	Level of qualification, affinity to lifelong learning, social and ethnic plurality, flexibility, creativity, cosmopolitanism/open-mindedness, and participation in public life
Smart Mobility (Transportation & ICT)	Local accessibility, (inter)national accessibility, availability of ICT-infrastructures, and sustainable and innovative and safe transport system
Smart Environment (Natural Resources)	Attractiveness of natural condition, pollution, environmental protection, and sustainable resources management
Smart Living (Quality of life)	Cultural facilities, health conditions, individual safety, housing quality, education facilities, touristic attractiveness, and social cohesion

In Philadelphia, IBM offered a social media – based educational applications for 500,000 less literate workforce training, preparing them for the knowledge-based economy. The government via the mayor stated that the program had been successful but eventually, it turned out to be not as expected.

Smart city initiatives are supposedly equipped with digital infrastructure and big data. Regardless, the initiatives to increase smart urbanism using big data have raised concerns, including technocratic city governance and development, corporatized city, (one kind of) technology trap, vulnerability (from hacking) and panopticon (Kitchin, 2014). The critiques prevail because smart cities are unaligned with the informal attributes of cities and subjects to corporate power that create and trigger social injustice. A smart city becomes the embodiment of second-order cybernetics and urban control (behavior) (Krivy, 2016).

Constructing City Brand

Smart cities construction using the branding protocol is expected to transform a city into a smart city. Cities in non-technology-producer countries which do not have apt institutions for adopting innovations, including Indonesia, are consumers of smart city technology. Then, stakeholders – based collaboration construction to adopt innovation in urban areas is needed (Yananda *et al.*, 2017).

Encouraging a city to become a smart one requires an approach to facilitate understanding and implementation. This paper used two (2) approaches, namely: (1) construction of regional competitiveness (constructed regional advantages) and (2) place branding (Oliveira, 2015). The approach using the construction of regional competitiveness relies on the city's capability to construct its advantages, such as knowledge and innovation as well as other key success factors, to grow and nurture innovations (Boschma, 2014 in Oliveira, 2015). On the other hand, place branding is a branding protocol borrowed for the sake of identity-based urban development (Yananda & Salamah, 2014).

According to Asheim (2011), the construction of regional competitiveness effectively combines regional potentials and promotes them into competitiveness. If a city wants to become a smart city, then the city organizers must be able to construct the city's competitiveness based on the smart city's characters and indicators. Then, these characters and indicators are to be communicated to all stakeholders, especially citizens.

Using the branding approach, city residents altogether with the local government and other stakeholders assume their role as the city brand's owners to create the smart city's identities. The identities are to be positioned based on differentiation and uniqueness of the city to obtain a competitive identity. The chosen identity is then communicated to build a good image and a strong

reputation. The stakeholders of the city are classified using the quadruple helix which consists of Academicians, Business community, Civil Society and Government (Yananda, 2017). City branding is an extension of city marketing and corporate communications. This concept is understood as the means of both achieving competitive advantage in order to increase inward investment and tourism as well as achieving community development, reinforcing local identity and identification of the citizens with their city and activating all social forces to avoid social exclusion and unrest (Kavaratzis, 2004).

Building and Communiating (The Smart) City Image

The image of the city is built based on three (3) modes of communication, namely primary communications (based on direct experiences with the city), secondary communications (based on public relationsand advertisements), and tertiary communications (based on word of mouth) (Kavaratzis, 2004). First and foremost, the image of a city was constructed based on its stakeholders' direct experiences. This mode of communication then became the sources of public relations and advertisements materials which are intentional in nature. The tertiary communications on the other hand are unintentional since words of mouth are uncontrollable and co – created by users and/or citizens. This paper aims to construct the smart city identity of South Tangerang based on its stakeholders' direct experiences. In other words, this paper focuses on primary communications in constructing the identities of the city.

Research Methodology

This paper is based on literature reviews and semi-structured interviews with the stakeholders of South Tangerang. The documents are data taken from Central Bureau of Statistics (Badan Pusat Statistik). A purposive sampling technique was conducted, including the city stakeholders using the concept of the quadruple helix (ABCG). ABCG stands for Academicians, Businessmen, Citizens, and Government officials.

19 (Nineteen) informants with diverse professional backgrounds such as university lecturers, entrepreneurs, SME owners, private sector employees, professionals, homemakers, local politicians, journalists and local government officials were interviewed separately. The result of the desk research and the interviews were used to construct the smart cities' identities based on smart cities' dimensions, attributes/characteristics, and indicators.

Results

South Tangerang City at a Glance

South Tangerang is a city in the island of Java, Indonesia and in the east part of Banten province (coordinates 106'38' - 106'47' East and 06'13'30' - 06'22'30' South). The city is adjacent to Tangerang City, Depok City, Bogor Regency, Tangerang Re-

gency, and South Jakarta. South Tangerang was a part of Tangerang Regency before it was established as a city by the municipal house of representative (Dewan Perwakilan Rakyat Daerah) in 2006 and was authorized via constitution No. 51/2008. South Tangerang consists of 7 (seven) districts, namely Ciputat, East Ciputat, Serpong, North Serpong, Pamulang, Pondok Aren and Setu, with a total area of 147.19 km². The city also consists of 54 administrative villages (kelurahan).

A relatively new city, ten-years-old South Tangerang is one of the favorite residence locations for those who work in Jakarta and Tangerang City. South Tangerang has become a more attractive city to live in since 3 (three) major property developers, namely Bintaro Jaya, Bumi Serpong Damai, and Alam Sutera, expand this area. Roughly half of South Tangerang's area is controlled by 4 (four) large property developers (Kompas, 23 May 2013). Overall, around 80% of the South Tangerang area is already owned by large, medium and small developers (Kompas, 02 August 2011). The total population of South Tangerang is 1,543,209 with a density of 10,484 per km² (South Tangerang in Figures, 2016).

South Tangerang is not only one of the fastest growing satellite cities in Jakarta Greater Area. It is expected to be one of the growth centers to counteract and decentralize business and economy based in Jakarta. This city is a metropolitan city based on its population (more than 1 million people), density rate and residents' (non-rural) work profile.

South Tangerang: Smart Cities Indicators *Economy*

South Tangerang has three (3) basis of economic sectors, namely finance, services, and construction. In term of contributions, the largest contribution comes from trade, restaurants, and hotel (over 30%) as well as transportation and communication (slightly more than 15%) (2012 South Tangerang Economics Indicators). Finance sector in South Tangerang has a relatively low competitiveness, while industrial sector possesses stronghold position though despite its slow growth. South Tangerang is one of the cities with the highest economic growth rates in Banten province. Its unemployment rate, furthermore, is 6.13 percent.

A government official described South Tangerang economy and its attractiveness in the eyes of investors.

"Sangat banyak ya Tangsel ini, karena berbatasan dengan ibukota. Pertumbuhan ekonomi sangat bagus, jadi sangat prospek untuk masyarakat. Makanya banyak investasi yang minat di Tangsel. Tangsel itu adalah daerah yang sangat potensial ya. PAD (local tax) nya tinggi. Pertumbuhan ekonominya bagus. Jadi harus kita kelola dengan baik dan benar".

[Very very (attractive) this South Tangerang,

because it borders the capital city. Economic growth is very good, so it is very prospective for the community. That's why there are many investments in South Tangerang. South Tangerang is a very potential area. The local tax is high. Good economic growth. So we must manage it properly and correctly].

A journalist stated that the city's attractiveness is profound.

"Banyak yang bisa menjadi daya tarik Tangsel terutama soal perniagaan tadi. Kan banyak pasar-pasar di Tangsel mulai dari Ciputat juga Serpong. Trus itu juga bisa dijadikan apa namanya nilai tambah buat Tangsel trus juga pendidikan".

[Many things can be the main attraction of South Tangerang, especially in terms of commerce. There are many markets in South Tangerang starting from Ciputat also Serpong. They served as added value for Tangsel besides education].

Governance

A relatively new town, South Tangerang's local administration has a relatively inward-looking perspective. Between 2010 and 2012, the local administration launched tens of regulations concerning, mainly, financial assets management and government organizations. Based on the national evaluation report on newly formed local governments in 2011, there are a lot of aspects for South Tangerang to catch up, especially in city governance and public services. South Tangerang was ranked relatively low (179), compared to Serang (87) and Cilegon that made it to the top ten list.

After South Tangerang became an autonomous city, 4 villages were transformed into administrative villages (kelurahan). This transformation was considered a progress in terms of public services, as mentioned by a university lecturer and a local government official.

"Ketika Tangerang Selatan ini mekar kemudian di dalamnya ditingkatkan posisi- posisi kepala desa menjadi lurah setidaknya itu sudah meningkatkan status. Nah status itu sudah mulai ada perubahan-perubahan di dalam pelayanan dibandingkan dulu masih berstatus desa dan kabupaten .Infrastruktur tentunya. Trus eh layanan sampai ke tingkat kelurahan itu perlu ditingkatkan. Tidak boleh lagi ada pungutan-pungutan liar. Kejelasan, kepastian sistem pelayanan di Tangsel seperti apa".

[When this South Tangerang became a city, the villages became districts (administrative villages). It had improved their status. It increased the (public) services. Of course (it is about) infrastructure. The (public) service in village (public)

offices) needs to be improved. There can be no more illegal levies. Clarity, and of course certainty (is needed) of the service system in Tangsel].

The improvement of public services is a high expectation are not limited to paperwork as informants who are a medical doctor and an entrepreneur stated.

"Pelayanan yang pasti, infrastruktur, pengolahan sampah, pendidikan, juga kesehatan.. Yang kurang sih perizinan yah. Tinggal perizinan dan keamanan aja. Yang lainnya standar kota-kota lain. Jadi eh, jadi cuman perbaikan infrastruktur, keamanan, sama birokrasi untuk pengurusan ijin-ijin".

[Definite service, infrastructure, waste management, education, and health. What is lacking is (on) licensing (procerdures). Just permission and security. Other services are quite standard. So uh, so just improving the infrastructure, security, and bureaucracy for managing permits].

Social and Human Capital

South Tangerang has made it to the top lists of cities equipped with private higher education facilities in Indonesia. The city hosts several universities which meet the international standard or affiliation (German-Swiss University, Jakarta Nanyang School, Binus International School, Sinar Mas World Academy); special interest universities (Universitas Multimedia Nusantara, Universitas Pembangunan Java, Surva University); public and/or government/ministry affiliated higher education institutions (Universitas Islam Negeri, Universitas Terbuka, Sekolah Tinggi Akuntansi Negeri, Akademi Meteorologi dan Geofisika); and national universities (Universitas Pamulang, Institut Teknologi Indonesia). This city is also known as the home of Puspiptek, a state-owned research and development center.

The residents are from diverse backgrounds in terms of ethnicity (Betawinese, Sundanese, Javanese, and others), race (Malay, Chinese, Caucasian) and religion (Islam, Christian, Buddha, and others), which makes them more open to social and cultural differences and more tolerant. South Tangerang welcomes the highest rate of migration in Banten province as it opened its gate to more than 100.000 people in 2010. To date, the numbers are reportedly still growing. The settlers' profile are well - educated (more than 70% of settlers have a middle schools diploma, 20% of them have a higher degree of education); working in service industries (more than 80%); employed (75% are employees or blue-collar workers); are within productive (working) age group (more than 80%).

Transportation & ICT

South Tangerang is connected to Jakarta as the core city in Jakarta Greater Area via land transportation. The city is close to Jakarta's new growth centers such as TB Simatupang and Kembangan business areas. Toll roads (Jakarta Outer Ring Roads) and railroads are available in South Tangerang for transporting goods and people. However, the residents suggested that infrastructure improvements still have some issues.

A university lecturer said that South Tangerang roads are in a state of emergency,

"Kita lihat bahwa Tangsel ini bagian dari outskirt itu infrastruktur jalannya itu sangat mendesak untuk diperbaiki...".

[We see that South Tangerang is part of the outskirt (of Jakarta) and the roads need to be repaired ...].

A government official also stated that this is the case.

"... dan berdasarkan survey pernah kita dapatkan itu bahwa kapasitas kendaraan di Tangsel udah melebihi jalan yang ada. Jadi kita harus memikirkan paling tidak menambah jalan...".

[... and based on the survey the vehicle in South Tangerang has exceeded the existing road capacit. So we have to at least build more roads ...].

South Tangerang is an urbanized city based on the information communication technology (ICT) used by its residents. Tangsel has the highest internet access compared to its neighbors, namely Tangerang city and Tangerang regency. The city also boasts the highest number of smartphone users and highly educated residents.

Natural Resources & Environment

South Tangerang has nine (9) small lakes (situ/setu) spread across its five (5) districts. The lakes are relatively neglected except for Situ Gintung. Situ Gintung is the largest lake in the region and recently rebuilt by the government after its embankment collapsed in 2009. Other than that, land and waste management also pose big issues in South Tangerang as a local government official put it,

"...masalah lingkungan juga banjir di beberapa titik seringkali masih kita lihat banjir trus belum terselesaikan masalah lingkungan misalnya sampah".

[...environmental problems, we still see flood at some point, and garbage problems have not yet been resolved].

A medical doctor stated that the South Tangerang's environmental problems affects its public services.

"Pelayanan yang pasti, infrastruktur, pengolahan sampah, pendidikan, juga kesehatan".

[Certainty in services, infrastructure, waste management, education, and health].

Quality of life

South Tangerang has second to none housing facilities in Jakarta Greater Area thanks to its large-scale and experienced property developers. This city is on top list among settlers. As stated by an entrepreneur,

"Tangsel itu kota yang baru lahir, tapi kota yang sangat luar biasa dan kota tujuan orang... orang Jakarta cenderung pindah ke Tangsel... indah kotanya dan memang tidak banjir dan tidak macet gitu". [Tangsel is a newly born city, but a very extraordinary city and a destination... Jakarta' residents tend to move to Tangsel ... the city is beautiful, does not flood (in rainy days) and free of traffic jam].

In general, the residents have good experiences living in South Tangerang. A medical doctor stated that South Tangerang has it all when it comes to urban necessities.

"Sudah banyak ya yang sudah ada di Tangsel. Sudah tersedia banyak, saya juga jarang ke Jakarta".

[There are many (facilities) in South Tangerang. There are many available (facilities), I also rarely go to Jakarta].

Discussion

The smart city as an option to construct city's brand image must connect technology use and social system to create an association between the residents and the city's brand. With this approach, all stakeholders are included in the process. The chosen technological platform must enable and encourage stakeholders' collaboration and participation. Desired city's brand image must come from the citizens using a bottom-up approach so the process develops a sense of belongingness toward the smart city's brand.

Based on the factors coined by Nam & Pardo (2011: 286), a smart city consists of technological, institutional, and human dimensions. The technological dimension consists of physical infrastructure, smart technology, mobile technology, virtual technology, and digital networks. Institutional dimension, according to these researchers, includes the government, policy, and regulation or directives. As for human dimension, it consists of human infrastructure and social capital.

South Tangerang has strong points in its human dimension in constructing its smart cities identities. It has only covered technological dimension in one aspect, however, which is the mobile technology used by its residents. Lastly, South Tangerang still has to cover institutional factors since the local government has not initiat-

ed any of the sub-dimensions mentioned before.

According to smart cities' attributes and indicators (Giffinger& Pichler-Milanovic, 2007), South Tangerang has a promising future when it comes to smart economy. It is an urban and metropolitan area due to its focus on service industries and non-rural residents' occupations. However, the local government has to catch up on its governance, regulations, and public services.

Human capital is the strong point considering the settlers' profiles. The city is well endowed with high education institutions, a national research, and development center. However, on the other side of the coin, this soft power is not supported with physical infrastructure. The local government still has to do its homework in building more roads and making improvements in the transport system. It also has to address problems surrounding land and waste management. Nevertheless, overall, South Tangerang is a livable city and its residents enjoy a relatively high quality of life.

In regard to smart city, technology has to be adjusted to the human dimension, as coined by Fuchs by the term "technosocial" (Fuchs, 2014). Top down approach on technology is to be avoided considering that human dimension is the key driver. Human and technology come hand in hand to strengthen the smart city's identities and position. For example, smartphones provide an entry point to start a collaboration and participation in smart city governance and development in South Tangerang, considering its high rate in smartphone users. Human dimension is also the starting point to create an innovation in governmental institutions, be it in governance, regulations, or organization.

These findings are concluded from stakeholders who have direct experiences about spatial and non-spatial factors of the city. These findings are to be completed with other types of communication referring to Kavaratzis' secondary and tertiary communications. Content analysis of existing news and ads related to South Tangerang are the next steps to construct its identities as well as analysis of the word of mouth.

Conclusion

In developing smart city's brand identities, a balance between technological and social factors must be attained in order to enable and encourage citizens' collaboration and participation. The smart city branding effort should align the human, technological, and institutional dimensions. In a nutshell, South Tangerang's identities constructed from its stakeholders' perception and secondary data are: (1) definitely an urban area; (2) has a basis for a knowledge-based economy (based on findings of human capital and social capital). These identities are to be projected in its positioning in order to create the right city's brand, which in turn will convey the desired image of the city.

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