

## Towards a framework of smart city diplomacy

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**Abstract.** This article addresses the impact of globalization on the contemporary society, particularly the role of the city that is becoming increasingly important. Three distinct yet intertwine aspects such as decentralization, technology, and para diplomacy become antecedent of competitiveness of the city. A city has more power and authority in creating wealth and prosperity of the society by utilizing technology. The smart city, in addition to the importance of technology as enabler, we argue that possessing the sophisticated technology and apply it towards the matter is not enough. The smart city needs to build smart diplomacy at the sub-national level. In this article, we extend the discussion about smart city by proposing a new framework of smart city diplomacy as one way to integrate information technology, public policy and international relations which will be the main contribution to literature and practice.

### 1. Introduction

Globalization as a phenomenon of rapid change in the economy, advances in production technology, innovation, especially in the field of communication and transportation has caused three major implications; Increasing the importance of technology, decentralization, and diplomacy at the sub-national level (para diplomacy). Demand on three T's (Time, Transportation, and Technology) is increasing rapidly to meet the need to compete and survive in a globalized world. In this circumstances, the development of Smart City technology attracted the attention of many parties. This has urged the importance of a city as a new actor in International Relations (IR). Smart City is using information and communication technology to optimize the electricity, water, telecommunications, transportation systems, and other social infrastructures urban areas for development [1].

Smart City in Indonesia has been originally established as a result of decentralization since 1999. Smart City is an ideal concept of urbanites with a wide range of facilities and benefits it offers. To that end, among others, six aspects of the smart city should be smart governance, smart people, smart mobility, smart environment, smart economy, and smart living [2]. However, not every city has its own desired technology to build the Smart City concept. This issue creates a dependency between one city to another city in exchange for the knowledge of each city and creates the phenomenon of international cooperation at sub-state actors, namely the city. This phenomenon is known as Para diplomacy.

That being said, the government has a role of switching, and the central government's role switches, and the central government's role switches, the central government's role switch, and the regional



government's Smart City Technology Program [3]. Instead, the role of the individual to compete and cooperate is very high in the perspective of the bilateral relationships, regional, and international. The central government is no longer the only actor who can handle the whole life of the people.

The importance of Technology and City has been growing since the start of globalization phenomenon. However, there is still limited studies concerning about how to gather and exchange technology from one of the other in the world. This paper contributes to the new smart city by establishing a relationship between related stakeholders not only to technology transfer activities, acquisition appropriate technology between Cities, and utilizing it. Our advantage is to provide the framework that can integrate how to make technology more effective and efficient by converging information technology, public policy and International Relations perspectives.

The aim of this paper is to describe a framework of the new role of para diplomacy for the smart city as a sub-national actor. To cope with this challenge, we have proposed a new model of Smart City Diplomacy. The first part of this paper describes the concept of Smart City Diplomacy formed by globalization implications; Decentralization, technology, and para diplomacy. The second part examines the case studies of the usage of the para diplomacy concept as a medium to do transfer technology between cities of Indonesia and other countries. The last part offers the conclusion of this paper.

## 2. Methods

This research is conducted using the qualitative approach to secondary data that is the result of the publication of books, articles, journals, news article, also document and press release that were collected from official organizational or governmental website that is related to the topic of the research. In social sciences especially international relations research approaches the specific crucial question, developing some concepts from literature as guidance, and put into hypotheses that will be tested or verified from social phenomenon [4]. It means that a conclusion will be taken to explain the phenomenon researched following close examination of the data [5]. Please follow these instructions as carefully as possible so all articles within a conference have the same style to the title page. This paragraph follows a section title so it should not be indented.

## 3. Results and Discussions

### *3.1 Globalization as Triggers to Technology and Diplomacy Optimization*

Every improvement linked from globalization has made communication easy, and people became aware of new things that are happening not only in their own country but also in other places around the world. Globalization is a complex and totalitarian force that was closely related with neo-liberalism, in which there are expressions in deregulation, the interdependence of financial, monetary, increased trade, investment, traveling and migration [6]. Globalization then compresses space and speed up the time that was supported by information and communication technology revolution and expresses the level of digital connectivity such as the internet. Not only that, globalization is driving economic integration and cultural homogenization that its implementation could lead to polarization levels resulting in social inequality and fragmentation of politic [7]. In this paper, globalization has urged the role of the city to begin improving their technology to provide the sustainable lifestyle to its people through the Smart City concept, Sister City concept, Foreign Direct Investment (FDI) from Multi National Companies (MNC), etc. Globalization then makes the format of high-level diplomacy turned into the foreign policy and non-central government that refers to diplomacy instead of focusing on micro diplomacy. That means the actor who played the role was in the sub-system of the state or local government that is known as 'para diplomacy' [8].

Para diplomacy is an extra-jurisdiction activity conducted by political entities (administrative unit). The beginning of para diplomacy development is characterized by the phenomenon of globalization that has affected all aspects of human life. Duchachek [9] has examined the phenomenon of increasing involvement of sub-national governments in international relations where sub-national governments do what is called the para diplomacy. The surplus is the local entities can better participate in the

international sphere, such as commercial agreements and cooperation between Macau and the European Community in 1992, when Macau was a Portuguese colony [10]. Paradiplomacy raises actors such as non-traditional groups, individuals, organizations and sub-state to achieve their interests respectively [11]. With that premise, para diplomacy was born as legitimacy for the emergence of new actors in international relations. Thus, diversification of the role of diplomacy actors gives an opportunity to local authorities to be directly involved in international relations such as investment, trade, without having to be active in any particular case to report to the central government.

### *3.2 The Importance of technology in Diplomacy*

As a form of public aspects, diplomacy in international relations is not immune to the global changes taking place in all spheres of social life. Developments in technology and communications have contributed significantly to the more intensive and effective diplomatic conduct. Globalization has changed the way in which countries and international actors communicate, negotiate and interact. Improvement in information and communication technology is radically changing the speed of information and ways of relating to international actors. Since the 19th century, the difference was felt as a result of the transformation of 'classic' diplomacy to 'modern' diplomacy [12].

The increasing of international organization role and the emergence of multilateral diplomacy is one proof of modern changes in diplomacy. The emergence of the United Nations in the 19th century is one example of multilateral diplomacy that is both conferences. Not until there, public diplomacy and e-diplomacy are also present due to globalization as a result of the development of technology weapons through social media and digital [13]. Public diplomacy itself is an escalation of the active involvement of civil society in public debate on international issues obtained from media [14]. The diplomats also can perform actions through partners in diplomacy, which was built with the help of technology (i.e. e-diplomacy) to achieve the goal through soft power with its persuasive expertise. Forms of modern diplomacy are more open than classical diplomacy.

Electronic diplomacy or e-diplomacy is the utilization of the web as well as information and communication technologies to help achieve diplomatic objectives of a country. In the 19th century, diplomats were using the telegraph machine in the process of negotiation so that they do not have to travel far to be able to communicate and conduct meetings. With the increasing of sophisticated technology in the 21st century, diplomacy conducted through the world of social networking and e-mail even involving multiple parties can utilize teleconferencing [15].

The advantage of this diplomacy is that it can publish information quickly, send and receive information in real time, as well as more efficient regarding cost, time, and energy. However, the drawback is vulnerable to piracy, plagiarism, and forgery. An example of e-diplomacy is the US embassy in Venezuela where the government ordered the local government to at least have a Twitter account as a means of information and official news from the US government. It becomes the potential for the US to extend information about the US itself via Twitter media to influence public opinion in Venezuela [16]. In Indonesia, most of the public officials ranging from president to city mayor have their own respective Twitter account and utilize it as the way they reach the public.

### *3.3 'Paradiplomacy' Within The Framework of Regional Autonomy*

Foreign direct investment is an investment in a country that originated from countries through multinational companies is owned by the private sector [17]. FDI is one form of foreign investment in the form of capital investment to establish industries factories in the certain areas including Indonesia. It usually takes as physical form, for example, factory construction, and involves the participation of the company. Also, the capital investment through FDI is also long-term. FDI has a direct relationship with the regional autonomy policy in which the investment management process, the investors will be dealing directly with the existing policy makers in the local area that will, in turn, positively impact the process of sustainable development in Indonesia.

Most perpetrators of foreign investment are MNCs. MNC's presence greatly affects the economic situation of a country, especially for third world countries where the MNC is one of the important

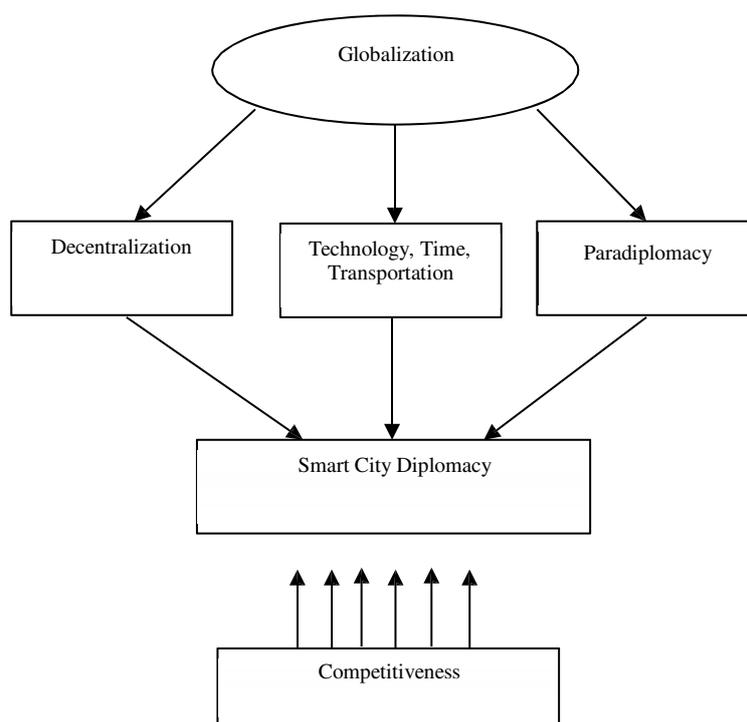
sources of capital for economic development. Since the enactment of Law on Foreign Investment No. 1 of 1967, many foreign investors and MNCs began to invest in Indonesia. Precisely in the same year in April the Indonesian government gave permission to the PT. Freeport Indonesia as the first MNC operating in Indonesia [18]. Target investments in Indonesia are directed at several sectors of industry, for example, oil, gas, mining, manufacturing, technology, and others.

Supported by those facts, with the benefits of the huge potential of natural resources owned by Indonesia, it can attract investors to invest. Each local government, therefore, began to play an active role in exploiting this potential to boost its development. This factor can be considered as an arm of the central government in promoting the local economy. To legalize the role of local governments to harness the potential in the region, the government formulated Law Number 32 Year 2004 on Regional Government later revised to Act No. 12 of 2008 which was subsequently revised again to Law No. 23 of 2014. The emergence of these rules authorizes several semi-autonomous regions to encourage development in the region.

Investment in these fields is essential for promoting economic development. There are four types of economic activity of business, namely the promotion of trade with main focus is not exclusively on handling activities to increase exports; promotion of investment opportunities mainly devoted to investment in the country but not from other countries; proselytize adequate technology; and management of economic assistance necessary for developing countries [19].

#### *3.4 A New Framework of Smart City Diplomacy*

As shown in Figure 1, Framework of Smart City Diplomacy depicts as integrating framework as a response to globalization and a big push for the city to become as competitive as possible therefore a smart city needs to extend their interactions with other stakeholders. Smart City Diplomacy is characterized by three elements: (1) actors; (2) process; and (3) output. The actor consists of local government (city mayor and their bureaucracy), local businesses, associations, academia, journalists, non-government organization, and individual. Other stakeholders are central government, foreign countries government, and business partners. In the process, as part of decentralization local government can push over the maximum services to the local community. This factor becomes possible due to the involving parties knows exactly the character of their area with its potentials and socio, economic, political and cultural aspects of the city. Maximum performance of local governments is certainly instrumental in exploiting the potential of the area through para diplomacy.



**Figure 1.** Framework of Smart City Diplomacy

The activity is included in cooperation with other parties both domestically and internationally in the level of Government to Government (G to G), G to Non-Governmental Organizations, the Government to Business, Business to Business and so on are closely related to foreign investment. In this case, the intended foreign investment can be in the form of technology transfer in shaping city governance based on information technology. That is the concept of smart city diplomacy as a form of investment for gathering variables to influence the emergence of other areas, such as investment in the economic field of trade, tourism, culture, culinary and others.

Also, technology can also play an important role in the para diplomacy process such as through websites, social media, the internet as well as cell phone or emails. Creative industries can contribute significantly by cultivating city's local knowledge, and wisdom becomes business opportunities. In short, as an output, Smart City Diplomacy will materialize the interests of the city and its communities, and in the end, the city become more prosperous, wealthy, and happy. Examples of the Smart City Diplomacy in practice can be seen from the cooperation of Jogjakarta city with the six parties ranging from 2003 to 2012 [20]. The practices are namely Cooperation with Kyoto Prefecture as a continuation of cooperation that was made on 16 July 1985 with the renewal of cooperation on Monday, July 18, 2005; Cooperation with Suruga Miyagawa Company made on July 2, 2003; Cooperation with the University of Karlsruhe signed on October 29, 2003, which is a continuation of cooperation with BATAN in the use of nuclear science and technology for the welfare of the people on August 12, 1999; Cooperation with the Province Geongsangbuk-Do, South Korea, signed on February 24, 2005; Cooperation with the Province of Chiang Mai, Thailand on 4 September 2007; and Special cooperation in health with the Medical Peace Foundation (MPF), South Korea made in 2007.

Of the six (6) cooperation, the one which has had a concrete follow-up is cooperation with Kyoto Prefecture fairly productive cooperation with Suruga Miyagawa Company, Cooperation with the University of Karlsruhe Germany, Cooperation with Geongsangbuk-Do, South Korea and the MPF, South Korea, while cooperation with Chiang Mai is just limited to diplomatic ethics compliance with the mutual visit between the two parties and the only development of cooperation plan alone. Additional examples would be Jakarta with Paris in City Development and Administration since 8 August 1995 [21], Bandung with Boston in Education sector starting 2016 [22], and Makassar with Netherlands

concerning socio-cultural sector in 2011 [23] and micro-regionalization in Batam [24]. While being packed with the concept of international cooperation between cities, Smart City Diplomacy in another perspective can be viewed as a way to protect a nation's assets. New industries will always exist within one region, and there will always be measurements taken by the government to protect those industries, particularly within the scope of ASEAN region [25]. Despite ASEAN Economic Community that integrates the market between ASEAN member states were officially implemented in January 2016, each respective state still takes precaution to protect their local industries. Therefore, Smart City Diplomacy in this perspective acts as a facilitator to increase one's local technology development through cooperation with their respective sister's city. This factor includes efforts and measurements to improve transportation and technology taken within the borders area of such as Natuna, and Batam in Indonesia.

#### 4. Conclusions

This paper has successfully discussed the emergence of the new role of diplomacy for the smart city. Smart City has been attracting global actors as a concept that can grant the facilities needed to maintain sustainability in a globalized world. There are debates about how globalization caused competitiveness urges which shifted the important role of the city as the new actor to build, exchange and utilizing technological knowledge properly through the para diplomacy concept with other cities from foreign countries. With cities as a new sub-national actor that could interact on the international level in search of investment, business partners, technological knowledge and socio-cultural exchanges, we argue that this is a new framework can enrich the practice of the smart city. Within this framework, optimization of Smart City concept played as the main motive that drives cities to conduct diplomacy internationally in its accordance thanks to the decentralization implicated by globalization phenomenon and the advancement of the technology.

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