

# *Exploring Digital Legislation Concepts and Practices: Inspiration for Indonesia City Government*

Bani Pamungkas  
 Political Science Department  
 Bakrie University  
 Jakarta, Indonesia  
[bani.pamungkas@bakrie.ac.id](mailto:bani.pamungkas@bakrie.ac.id)

Maulana Yusuf  
 Public Administration Department  
 Sultan Ageng Tirtayasa University  
 Serang, Indonesia  
[maulanay1903@gmail.com](mailto:maulanay1903@gmail.com)

**Abstract**—Both in global and local context, cities have become more important politically, economically and socially. With rapid growth of information and communication technology (ICT) over the last decade, human relations have revolutionized, creating new possibilities of encounter and connectivity, as well as the new way for strengthening cities government and citizen relations. The cities government have started to use ICT to foster citizen engagement with broader and deeper contributions in political decision-making process for achieving openness and transparency. Innovative digital and mobile technology facilitate solutions for government to respond demand participation including informing, consulting and engaging citizens during legislation cycle process. However, the development of e-participation in the digital city context still have primary challenge and requires strong vision and commitments from all of the city stakeholders for legislation making process more digitally and participative. This paper tries to elaborate a literature study of conceptual publications on the subject of eParticipation in term of legislation process with the time frame of 2013–2018. Its objectives are to track recent theoretical and practical development in the field, to reveal constraints and limitations the concepts, and to offer some suggestions for city government in Indonesia for developing digital legislation implementation strategy.

**Keywords**—political participation, cities government, citizen relations, ICT, legislation cycle

## I. INTRODUCTION

Cities are complex systems that always attractive to look and studies [1], [2]. Grown up with the geographical and social concentration of a surplus product, city is a reflection of the contestation of power and social class hierarchy. It is described as a growth machine that is influenced by the political struggle among stakeholders [3]. Municipal regulators, urban planners, developers, public and others interact with each other and cause upheaval in defining their respective functions and activities in designated spaces[4]. Hence, a city spaces reflects the struggles and interaction of various influencing forces.

Many research and best practices have indicated that changes are taking place in urban governance [5]–[7]. City government still continues to struggle and enhance their capacity and capability in managing rapid city growth and increasing numbers of citizens. On the other side, the emergence phenomenon of distrust to the government triggered initiated for strengthening public participation in urban policy making process. This initiative is caused by democracy fatigue symptoms and the loss of legitimacy in

political modern representative model. At national, local and event, city government is facing a situation of declining voter turnouts, losing public interest in politics and public discontent, especially by young people [8]. This condition is a challenge ahead in directing urban governance changes in order to respond to the dynamic changes and needs of society and environment.

Therefore, responding to the situation, government all over the world try to exploit the potential of the use of ICT and IoT to restore citizens' distrust and revitalize mechanism public engagement. Electronic governance should play a role for strengthening quality administrative services but also contribute more to policymaking and regulation [9]. ICT technologies is believed to be able to transforming city for become more digitally and smarter [5], [7], [10]. With ICT, all city inhabitants are in a connected environment, that is easy to share information and collaborate.

Utilizing electronic technology and IoT, the urban governance is transforming into e-urban governance mode. Citizens are political agents who are more easily and actively involved in policy formulation and other agenda setting in city governance [5]. City operation, system and infrastructure will create more information, rise up the level of knowledge, strengthen creativity and collaborative innovation through direct interaction between public bodies, private actors and citizens[11], [12]. Hence, creating digital urban environment can potentially expand the scope of citizens engagement and bring up a new model of participation with affordable costs.

Adaptable capacity of city governance for using smart information and communication technologies (ICT) will continue to increase in managing and developing city services for citizens. With new approach of smart city 2.0 which uses people-centric approach can be a tool for handling social problems, serving citizens' needs, strengthening policy and governance as well as foster citizen participation [13]. This is also in line with the reason why city governance develops the participatory governance mechanism to improve public services delivery and increase government responsiveness and accountability. Thus, by involving society in decision-making over city policy, they can consolidate and empower society, as well as promoting public deliberation and strengthening democracies.

Potentially, digital technology has quickly become the core of life, work, culture, and identity of the nations

around the globe, including Indonesia. The number of Indonesians using the internet has followed the upward global trend, increasing sevenfold from 8.1 million in 2005 to 56.6 million in 2015 [14]. The smartphone also has been a game changer in facilitating the adoption of the internet in Indonesia, in 2012, around 29 per cent of the 55 million Indonesians which connected to the internet did so via a mobile phone. Then in 2016, it had increased to 70 per cent, largely because of the massive expansion of the smartphone market [15], [16]. The fact is getting stronger when Jakarta as Indonesia capital city has been named the world's "most active city on Twitter" [17]. Therefore, the demand of internet will continue to increase, especially from young Indonesian, for admittance into the digital world. A common sight, seeing young people interacting with social media in common place, like cafés and malls that are spread in various cities in Indonesia.

Nevertheless, as a concept the digital technology and the use of ICT can boost the quality of public services, leading to reform of the bureaucracy and lifting the level of engagement with the citizens. However, the successful digitalization policy making and public services into e-governance practices need integrative frameworks: a regulatory, an institutional and accountability framework [18]. Therefore, concerning the issues, the paper presents and examines the elaboration of conceptual research based on literature and practice on digital legislation.

Its objectives are to track recent theoretical and practical developments in the field, to reveal constraints and limitations the concepts, and to offer suggestions for

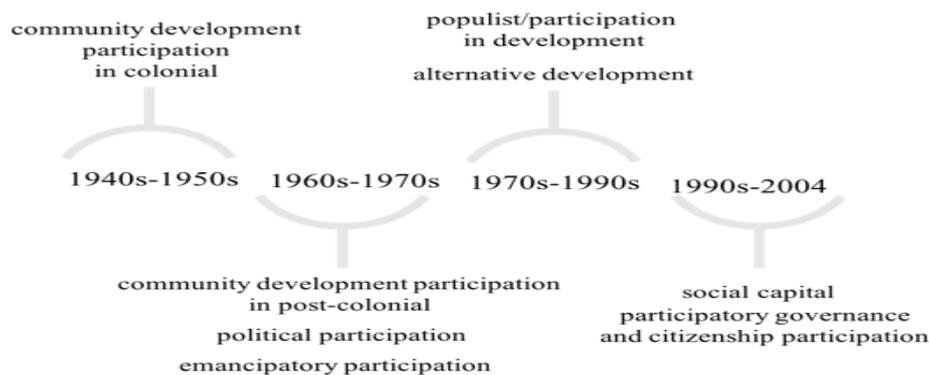
city government in Indonesia to develop digital legislation implementation strategy. Hence, the rest of the paper is organized as follows. In the next section, we take a closer to literature review about public participation from the beginning until come up in the digital era. In the third section, we outline the research method. Following this, in the fourth section, we elaborate and discuss our findings. While in the conclusion, we tie up key messages and implications.

## II. LITERATURE REVIEW

Based on empirical literature from various disciplines, academic debate for and against public participation have been discussed in development theory and policy for many years. The debates have concentrated on the participation of beneficiaries to incorporate local knowledge into the planning, implementation, and monitoring of development projects.

Began in 1940s until 2004, Hickey and Mohan divided 4 (four) phases of participation in development theory and practices into: (1) community development participation in colonial; (2) community development participation in post-colonial; political participation, and emancipatory participation; (3) alternative development, and populist/participation in development; (4) social capital, participatory governance and citizenship participation [19]. The stages show that participation is placed in various functions but with different ideologies, purposes and political goals.

Fig. 1. 4 (four) phase of participation in development theory and practices.



Then in the 1990s, public participation concept continued to strengthen, by being a complement for making public policy process to make it more accountable, legitimate and responsive [20]. Various participatory governance mechanisms have been adopted, including participatory planning, participatory monitoring and evaluation[21]. In many developing countries, a large number of laws on participatory governance have been passed with many civil society initiatives as an effort to increase the level and strengthening public participation institution in policy process. For example, public hearings

models in India and Philippines, vigilance committees in Bolivia and Philippines, participatory budgeting in Brazil and Peru, and forums for participatory planning and decision making over public provision in Bolivia, Mali, Uganda, and Mexico [21]. However, in practice, public participation is merely a jargon and sweetener for the public policy process[22]. Policy makers still simply place public participation as a procedural stamp to declare that stakeholders have been involved.

Furthermore, Speer divided stories on participatory governance into 4 (four) perspectives: *first* democratic

decentralization; *second* the deliberative democracy, *third* the empowerment and *fourth* the self-governance [21]. In the first perspective, participatory governance is a strategic tool to increase the accountability and responsiveness of government. This is the answer to the emergence of elite problem and clientelistic policymaking, especially in developing country governments. In context of the deliberative democracy perspective, participatory governance is expected to improve a political system more democratic by strengthening decision making process with deliberative process [21]. With a deliberative process, engagement and public contestation of ideas can influence participatory governance bodies for making policy process more transparent and equitable in creating better policy outcomes. In empowerment context, the prerequisite for successfully participation governance is how to strengthen the power and role of existing social and political institution in society. And for self-governance context, participatory governance is expected to create creativity room for citizens in influencing the design, rules and implementation of daily services with a flexible decision process environment. Therefore, with participatory governance, the institution has spaces to lead and tailor solutions more flexible to bring solution in public services provision.

Public Participation then entered in era of disruption due to the emergence of information technology and IoT. Digital government evolution, in the beginning was started in 90s through electronic government concept, then grew up with Government 2.0 in the 2000s and today transform more digitally by Government 3.0. [23]. IT has rapidly transformed the way government works relate public services and relation to the citizens, business, and other governments [24]. They go inside in the digital era in which technologies have driven the institution to become more agile, responsive and capable as well as more simplifying the administrative process and automated [25]. In short, digital government still evolves to follow the fast-moving technology toward and more complex.

The development of digital governance can be understood in four stages of evolution. The stages includes digitization, transformation, engagement and contextualization [9]. The stages themselves is a continuum of government transformation technology using the development information technology level. In digitization stage, government is developed, making operation and maintaining the technological environment by digitalization data, documents, and other information. Through digital networks, government is automating existing process, services, practices and entire office activities for delivering value to the public.

Then, in the transformation stage, government organizations move for improving internal working structure through the application of digital technology. The improvement is aimed to make public organization more efficiency, effectiveness, rational, simple and responsive due to interact with citizens, business and other external actors. With the digital channel, it is easier for the government to engage and empower the stakeholders in decision making process. After the readiness government

organization in the previous level, the next phase is to transform the relationships model among government, citizens, business and other government actors using digital technologies. In this phase, access and public service delivery system will be more connecting, easy, convenience and effective [9].

In the city context, interaction city development and IT are wrapped in platform of smart cities, which is how cities take advantage of technology to favor the development and provide solution to many city problems and sustainability [26], [27]. Smart cities platform represents a multidisciplinary approach that shapes by advancements in technology and urban development with six main dimensions, including a smart economy, smart mobility, a smart environment, smart people, smart living and smart governance [28]. Then, Angelidou [26] introducing four asset of the integrated model of smart city which includes (1) advancement of human capital: citizen empowerment (informed, educated, and participatory citizens), intellectual capital and knowledge creation; (2) advancement of social capital: social sustainability and digital inclusion; (3) behavioral change: sense of agency and meaning (i.e. the feeling that city society are all owners and equally responsible for our city); and (4) humane approach: technology responsive to needs, skills and interests of users, respecting their diversity and individuality. Therefore, a city can be defined as “smart” when ICT infrastructure could support developing city investment in human and social capital as well as sustainable development, economy growth and high-quality life through participatory governance.

However, the concept about the usefulness of ICT and digital governance is not enough at the theoretical and project level. Nugroho and Hikmat argue that the successful application of e-governance requires three fundamentally aspects as integrated framework: a regulatory, an institutional and accountability framework [18]. A regulatory framework is needed to provide official directives to the bureaucracy. Without direction, authority and clear task, it would not be able to mobilize government resources. Then, an institutional framework is required to govern the organizational arrangement across government institutions. Hence an accountability framework be required to ensure that progress is monitored, reported and measured in an open and transparent manner. Therefore, all three elements are crucial to ensure that the government transforms the policy process and public services that makes a real difference to people’s lives.

#### 1. Research Method

This is a conceptual paper, the research compiles literature from journal, governmental reports, and other mass publications [29]. It will give a discursive analysis of digital governance, in the realm of the legislation process and the practice experience for elaborate the positive value-added to communities, and the consequences. The research context is in city legislation process in Indonesia.

III. DISCUSSION

A. Legislation Process and Public Participation: in Cities Context

Indonesia Cities City Council hold a strategic role in leading regional autonomy application through one of its functions: legislative function. Undang-Undang No. 23 Tahun 2014 with the amendments regarding Regional Government in Article 150 letter a state that Indonesia City Councils (DPRD) together with Governor/Mayor which are discussed together in order to get a consensual agreement. Through this function, Indonesia City Council along with Governor/Mayor are policy makers who determine the district's sustainability and future.

Local/City regulation is basically the main law product in the region, which is an elaboration of higher regulations in accordance with Law No. 12 year 2011, article 7

paragraph (1). Local regulation contains 4 (four) strategic functions, which are (1) guidance in deciding directions of development and governance in the district; (2) basic of public policy making in city; (3) social contract in the city; and (4) support for regional apparatus formulation and organizational structure of regional apparatus. Therefore, sufficient capacity and supporting power are needed in every process or cycle of legislation in order to form a high quality of city regulation. Some requirements related to efforts of system building, preparation procedures, discussion, techniques, formulation, and city councils together with city government must fulfill even its application in order to produce qualified city regulations.

Fig. 2. Hierarchy of laws and regulations in Indonesia

Pre-2000	2000-2004	2004-2011	2012 - onwards
1945 Constitution			
People's Consultative Assembly Decision			
Law and Government Regulation in Lieu of Law	Law		
Government regulation	Government regulation in lieu of law		
Presidential decree	Presidential regulation		
Ministerial regulations and instructions "Other" regulations and instructions	Sub-national regulation	Provincial regulation	Provincial regulation
	Village regulation	Regency/city regulation	Regency/city regulation

The process of forming a city legislation is the beginning phase of the whole process, which is very influential in producing high quality local regulations. Based on provision article 1 verse 1 UU No.12 year 2011 regarding Regulation Formulation, forming regulations is a unified process which contains four related and connected activities: planning, formulating, deliberating process, and enactment. The planning, formulation and deliberating process are the main stages in making a local regulation. Meanwhile, the validating stage is the stage of making political decision on local regulation draft, which has been discussed. On the other side, enactment is administrative stage of the local regulation, which has been produced together by City Council and City Government.

In planning process, based on Law No. 12/2011 and Law No. 23/2014 establishes the obligation for city government to publish city legislation program (Propemperda) for one year ahead. Draft of city regulation (Perda) included in the Propemperda must be accompanied by information on their proposed objective, scope and outcomes. This information is to be drawn from a mandatory academic study (*naskah akademis*). The propemperda are subsequently to be voted by the plenary of City Council before a vote on the annual budget law. In principle, this timing is to ensure that the Propemperda are

included in the annual work plans and budget of city government.

Propemperda is prepared jointly by their respective City Council and city government. City council legislation unit coordinates input from political factions, committees and members within their respective city council as well as the general public. Legal bureau of city government coordinates input from their respective city government units in formulation of propemperda. However, no specific responsibility or mechanisms is required to share their respective propemperda with public.

In practice, there are a number of problems in preparation of propemperda: no priority and just contains the list of draft local regulations for next year without academic study background [31]. Hence, propemperda is finally only a collection of proposed city regulation that want to be discussed.

The second is formulating process. City regulation/Perda is developed by City Government as well as City Council. The material contained is all aspect regulation related to city services that elaborated from higher legislation and special condition of local area. A good Perda can be seen from the substance and process sides. In substance, making Perda should based on appropriate method and standard, fulfills the technical instruction of legislating, as governed in Law No. 12/2011

[32]. The Perda should contain at least three main aspects: philosophical foundation related to the state foundation or ideology, sociological foundation related to empirical condition or reality living within society including need or demand the people deal with, people's predisposition and expectation, and juridical foundation related to the authority of developing, the compatibility of content type and material and certain procedure to higher legislations.

For the process, both city government and city council in formulating perda should engage and give access to public for participate in process. Law No. 12/2011 introduced the formal obligation for the city government/executive branch to conduct public consultation in formulating Perda. While the responsibility for initiating city regulation is deemed to be that of Governor/Mayor and parliament, the public also reserves the right to provide oral and written inputs into the drafting process. The public has right to provide input, either orally or in writing in the formulating perda.

The public is broadly defined as individuals and professional, civil society and local cultural group may affected by or that have interest related to the perda. In practices, city government and city council are formatting the participating through public hearings, working visits, socialization as well as seminars, workshops and discussion. Another mechanism in common forms of consultation included: i) group meetings with experts and stakeholders, including from universities, business associations and non-government organisations; ii) posting the draft of Perda on the city government's website together with an invitation for public comment; iii) public hearings, meetings and workshops to which the public is invited; iv) focus group discussion with affected parties; v) external consultants to conduct analysis; vi) random surveys of the general public; and vii) press releases were sometimes used to generate interest in the consultation process [33].

However, these public rights to involve and participate in formulating process have not been as expected. In consultation process, the problems is show that its difficult exists to assess the quality of public consultation [33]. Hence, when the public provide oral and written inputs into the drafting process, the drafting process tends to be lengthy and complex [34]. The bureaucrats are not able to offer any reports or data about progress after public consultation. In some cases, city regulation/Perda often take up to three years to complete and have to be stringently reviewed to ensure the draft will comply with higher laws and regulations and do not conflict with the public interest. Hence, from the facts above, often public participation is positioned as an obstacle in Perda formulation.

Likewise, in the city council Perda approval process still does not provide access to public involvement in the deliberating process. City council does not maintain easily accessible records regarding the process and outcome [33]. Transcripts of public hearing in city council as one form of public consultation, it is still difficult to access. The lack of any monitoring or recordkeeping about public consultation

makes it difficult to assess the acceptance of public aspiration in the deliberation of Perda.

The last phase is enactment process. This process is the final stage in perda making process. Referring article 242 Law No. 23/2014 states that draft Perda that has been approved by the city council and city government, is delivered from the city council's leader to Governor/Mayor to be determined as Perda. Then the Governor/Mayor obligatorily delivers draft Perda that has been approved to the MOHA or Governor lately 3 days to get Perda register number. The MOHA or Governor as the representative of Center Government in the region have 7 days to give the register. After the registration process, the Governor/Mayor as local leader is signing the draft Perda as lately 30 day after the has been approved by the city council and city government. When the Governor/Mayor does not sign the draft Perda that has gotten register number, then the draft is legalized to be Perda and enacted compulsorily in local gazettes.

## *B. Digital Legislation : Adaption Process in City Legislation Cycle*

### *B.1. Regulatory Framework*

The problem of public participation in city legislation making process can actually be overcome by supporting the use of ICT. With ICT, city government could make the process more accessible and transparent in involving public for more broader and deeper contribution. By implementing digital legislation, the city government can have the ability to make digital connection with multi stakeholders intensively and more deeply. Digital legislation instrument it's cover using web-portal; social media; ICT; and digital command center. In the future, the use of artificial intelligence is also possible to strengthen legislation-making process.

In level connection, digital legislation would strengthen connection within government for permitting 'joined-up thinking. The digital also makes connection government with NGOs or citizens as well for strengthening accountability. With ICT, connection government with business/citizens also could transforming service deliver to respond demand participation including informing, consulting and engaging citizens during legislation cycle process. Then the technology makes connections within and between NGOs for supporting learning and concerted action related to legislation function in city council as well as city government. And by digitalization process, it could strengthen connections within and between communities, political parties, universities, mass media as political infrastructure for building trust and enhancing social capital to political system. It is convinced that by digital legislation can strengthen democratic process and increase public support in political decision-making process by increasing the quantity and quality of interactions between government and their stakeholders.

While digital legislation can certainly help the government to improve the quality of policy making, still this innovation will only be possible if the policy is underpinned by a clear regulatory framework. Therefore, for supporting this effort, city government needs a new

regulatory regime as a legal basis in supporting the implementation of digital legislation. Law No. 12/2011 and Law No. 23/2014 need to amendments by including a number of provisions that can support these efforts.

#### B.2. Institutional Framework

For supporting digital legislation, both city council and city government need a proper institution for implementing digital legislation. City government unit needs additional function for supporting this process with new mechanism, authority and scope of its duties. And also in city council institution, Bapemperda (legislation unit of city council) should have additional duties and supporting unit in carrying out function as a digital legislation machines. An institutional framework is needed to make sure that all actors and stakeholders are involved in a meaningful way.

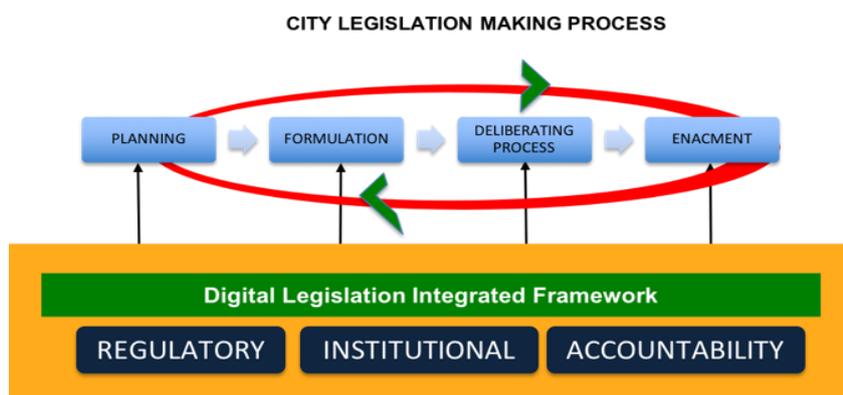
#### B.3. Accountability Framework

This framework is needed to ensure that progress is monitored, reported and measured in open and transparent

manner. The implementing progress of digital legislation will only be possible if the digital transformation has the robust monitoring and evaluation. This idea is not just a project, but a future vision for transforming the process into real engagement and better process.

Therefore, to ensure the implementation of digital legislation is carried out, it is necessary to have a clear road map, working plan, key progress indicator for each phase and report model to the public. This accountability instrument is very crucial in maintaining public trust in implementing and sustainability process. Finally, the city government as well as city council should be encouraged to take ownership of the initiative in order to ensure the sustainability of the system. Digital legislation initiative requires strong vision and endorsement from the city's political leaders as well as public for creating better legislation making process.

Fig. 3. Digital Legislation Integrated Framework



#### IV. CONCLUSION

The city governments have started to use ICT to foster citizen engagement with broader and deeper contributions in political decision-making process for achieving openness and transparency. Innovative digital and mobile technology facilitate solutions for government to respond demand participation including informing, consulting and engaging citizens during legislation cycle process. The successful application of e-governance requires three fundamentally aspects as integrated framework: a regulatory, an institutional and accountability framework. However, the development of e-participation in the digital city context still have primary challenge and requires strong vision and commitment from all of the city stakeholders for legislation making process more digitally and participative.

#### ACKNOWLEDGMENT

This paper has been presented in International Conference on Democratisation in Southeast Asia and thank you for the commite.

#### REFERENCES

- [1] X. Huang and C. Yost-Bremm, "The power law within a metropolitan area," *Cities*, vol. 72, no. October 2016, pp. 201–205, 2018.
- [2] D. Hervey, *Rebel Cities, From the Right to the City to the Urban Revolution*. London: Verso, 2012.
- [3] H. Molotch, "The City as a Growth Machine: Toward a Political Economy of Place," in *Cities and Society*, I., N. Kleniewski, Ed. Oxford: Blackwell Publishing Ltd, 2005, p. 17.
- [4] A. Hanser, "Street Politics: Street Vendors and Urban Governance in China," *China Quarterly*, vol. 226, pp. 363–382, 2016.
- [5] J. Lee and H. Lee, "Developing and validating a citizen-centric typology for smart city services," *Gov. Inf. Q.*, vol. 31, no. SUPPL.1, pp. S93–S105, 2014.
- [6] T. Firman, "From 'Global city' to 'City of crisis': Jakarta Metropolitan Region under economic turmoil," *Habitat Int.*, vol. 23, no. 4, pp. 447–466, 1999.
- [7] M. Angelidou, "Smart city policies: A spatial approach," *Cities*, vol. 41, pp. S3–S11, 2014.
- [8] E. Lironi, "Potential and Challenges of E-Participation in the European Union," Brussels, 2016.
- [9] T. Janowski, "Digital government evolution: From transformation to contextualization," *Gov. Inf. Q.*, vol. 32, no. 3, pp. 221–236, 2015.
- [10] V. U. B. R. M. D. Albino, "Smart cities : definitions , dimensions , and performance Vito Albino Umberto Berardi Rosa Maria Dangelico \*," *J. Urban Technol.*, pp. 1723–1738, 2015.
- [11] R. Jucevičius, I. Patašienė, and M. Patašius, "Digital Dimension of Smart City: Critical Analysis," *Procedia - Soc. Behav. Sci.*, vol. 156, no. April, pp. 146–150, 2014.
- [12] N. Walravens, "Qualitative indicators for smart city business models: The case of mobile services and applications," *Telecomm. Policy*, vol. 39, no. 3–4, pp. 218–240, 2015.

- [13] G. Trencher, "Towards the smart city 2.0: Empirical evidence of using smartness as a tool for tackling social challenges," *Technol. Forecast. Soc. Change*, vol. 142, no. October 2017, pp. 117–128, 2019.
- [14] M. Pangestu and G. Dewi, "Indonesia and the digital economy: creative destruction, opportunities and challenges," in *Digital Indonesia Connectivity And Divergence*, E. Jurriens and R. Tapsell, Eds. Singapore: ISEAS Publishing, 2017, pp. 227–254.
- [15] R. M., "'Crossroads of innovation', Mobile Southeast Asia Report 2012," 2012.
- [16] Judith Balea, "The latest stats in web and mobile in Indonesia (Infographic)," 2016.
- [17] V. Lipman, "The World's Most Active Twitter City? You Won't Guess It," *Forbes*, 2012. .
- [18] Y. Nugroho and A. Hikmat, "An Insider's view of e-governance under Jokowi: political promise or technocratic vision?," in *Digital Indonesia Connectivity And Divergence*, E. Jurriens and R. Tapsell, Eds. Singapore: ISEAS Publishing, 2017, pp. 21–37.
- [19] S. Hickey and G. Mohan, "Towards Participation as Transformation: Critical Themes and Challenges," in *Participation: From Tyranny to Transformation, Exploring New Approaches to Participation in Development*, S. Hickey and G. Mohan, Eds. New York: Zed Books, 2004, p. 9.
- [20] J. Gaventa, "Towards Participatory governance: Assessing the Transformative Possibilities," in *Participation: From Tyranny to Transformation, Exploring New Approaches to Participation in Development*, S. Hickey and G. Mohan, Eds. New York: Zed Books, 2004, p. 25.
- [21] J. Speer, "Participatory Governance Reform: A Good Strategy for Increasing Government Responsiveness and Improving Public Services?," *World Dev.*, vol. 40, no. 12, pp. 2379–2398, 2012.
- [22] C. Certomà, F. Corsini, and F. Rizzi, "Crowdsourcing urban sustainability. Data, people and technologies in participatory governance," *Futures*, vol. 74, pp. 93–106, 2015.
- [23] M. Katsonis and A. Botros, "Digital Government: A Primer and Professional Perspectives," *Aust. J. Public Adm.*, vol. 74, no. 1, pp. 42–52, 2015.
- [24] L. F. Luna-Reyes and J. R. Gil-Garcia, "Digital government transformation and internet portals: The co-evolution of technology, organizations, and institutions," *Gov. Inf. Q.*, vol. 31, no. 4, pp. 545–555, 2014.
- [25] R. Tassabehji, R. Hackney, and A. Popović, "Emergent digital era governance: Enacting the role of the 'institutional entrepreneur' in transformational change," *Gov. Inf. Q.*, vol. 33, no. 2, pp. 223–236, 2016.
- [26] M. Angelidou, "Smart cities: A conjuncture of four forces," *Cities*, vol. 47, pp. 95–106, 2015.
- [27] T. Monfaredzadeh and R. Krueger, "Investigating Social Factors of Sustainability in a Smart City," *Procedia Eng.*, vol. 118, pp. 1112–1118, 2015.
- [28] J. H. Lee, R. Phaal, and S. H. Lee, "An integrated service-device-technology roadmap for smart city development," *Technol. Forecast. Soc. Change*, vol. 80, no. 2, pp. 286–306, 2013.
- [29] J. Holgersson and F. Karlsson, "Public e-service development: Understanding citizens' conditions for participation," *Gov. Inf. Q.*, vol. 31, no. 3, pp. 396–410, 2014.
- [30] J. G. and A. L. Clarisse Legendre, "OECD Reviews of Regulatory Reform INDONESIA MARKET OPENNESS," 2012.
- [31] E. N. Sihombing, "Problematika Penyusunan Program Pembentukan Peraturan Daerah," *J. Legis. Indones.*, vol. 13, no. 3, pp. 285–295, 2016.
- [32] A. Agustiwati, Isharyanto, and Hartiwiningsih, "Local Regulation Cancellation Mechanism and its Legal Consequence based on Lex Superiori Deregog Legi Inferiori Principle in Economy," in *SHS Web of Conferences*, 2018, vol. 54, p. 01005.
- [33] J. G. and A. L. Clarisse Legendre, "OECD Reviews of Regulatory Reform INDONESIA MARKET OPENNESS," no. September, p. 66, 2012.
- [34] A. D. Tyson, *Decentralization and adat revivalism in Indonesia: The politics of becoming indigenous*. Routledge, 2012.