The Information Communication Technology (ICT) Gap and the Generation Gap in Local Government Towards "SMART ASN"

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Abstract

The role of ICT is very important, especially in the era of data explosion or big data, but the government, especially local governments, finds it difficult to take advantage of it due to the uneven development of ICT. This is very helpful for the government in providing services to the community. Based on this, the researchers are interested in examining how the local government applies the mandate of Government Regulation No. 11/2017 towards "SMART ASN" in the field of ICT and HR? What have local governments done to implement it? The purpose of this study is to determine the implementation of the mandate of Government Regulation No. 11/2017 towards "SMART ASN" in the field of ICT and HR carried out by the local government and know what the local government has been done. This research uses the descriptive qualitative method. To get all the information related to the research problem, the researcher used document study techniques to collect data. Data analysis is done by collecting, compiling, and interpreting the data and then making conclusions. From the data are got that there are still many local governments that have not carried out Government Regulation Number 11 of 2017, such as preparation and determination of needs, career development, and unclear career patterns, making the generation gap increase. There are still provinces that have not been able to fully access ICT, so that why they can't utilize the big data optimally. The efforts of the government to implement PP No. 11 of 2017 are many local governments have implemented technical education and training organized by technical agencies, the government tries to make the Palapa Ring and merit system.

Keywords: SMART ASN, ICT, Generation Gap, Big Data and Local Government

1. Introduction

The State Civil Apparatus (ASN) is a reflection of the bureaucracy in Indonesia which is expected to be able to adapt to developments in science and technology to create an ASN that is competent in responding to dynamic situations and conditions. The bureaucratic reform program policies have the opportunity to build Human Capital Management in Dynamic Governance. Currently, millennials dominate all government agencies, both central and regional. Not to mention that in 2019, the Government opened 152,286 formations with details of 37,425 Central Agencies at 68 K / L and 114,861 Regional Agencies in 462 Regional Governments [1] so that it can be said that the number of ASN will continue to be dominated by millennials. The generation that has organized and creative ideas. ASN from a generation that plays an important role in the bureaucracy and can collaborate with a bureaucratic character that is rigid, regulation-based, and difficult to change [2]. Judging from those who tend to be unregulated and think creatively, ASNs from the millennial generation do not experience a clash of cultures at work that have a mindset due to an age gap [3]–[5]. Also, the reform program that has been implemented for more than a decade by the Government of Indonesia is to create a transparent, accountable, effective, and efficient government to improve the quality of public policies and provide better public services through the application of an electronic system of government based (SPBE).

Each local government can develop the competence of each ASN towards smart ASN, as stipulated in Government Regulation Number 11 of 2017 CHAPTER V regarding career development, competency development, and career management information systems. The series of information and data regarding ASN employees is compiled systematically, thoroughly, and integrated based on technology. However, in reality, not all local governments can carry out this mandate. It can be seen...
that not all local governments can carry out public service activities or daily work using technology. The local government bears a heavy burden in facing the industrial revolution 4.0. This cannot be separated from the role of the government in ICT development which is not evenly distributed. This condition will affect the performance of local governments towards smart ASN.

The government continues to strive for an integration of business processes and innovation, although this is still hampered by ineffective and inefficient collaboration between central and regional government agencies. Currently, the government still has minimal data that is open and can be used for sharing [1]. This has an impact on data consistency and completeness of data among government agencies that are questioned by the public and of course this will affect the quality of public policies. Even unequal access to ICT has become common for the government in implementing public services. Therefore, government big data which is based on government data that pay attention to data, data accessibility, and data quality to improve government services in developing the quality of public policies, public participation, and economic growth through the use of big government data will be severely constrained due to economic growth. Unequal access to ICT, especially for Eastern Indonesia.

This study aims is to determine the implementation of the mandate of Government Regulation No. 11/2017 towards "SMART ASN" in the field of ICT and HR carried out by the local government and to know what local government has been done.

2. Methodology

This research uses a descriptive qualitative method. Qualitative research is a research method used in expressing the problem in the work-life of organization government, private sector, community, youth, women, sports, arts, and culture so that it can be used as a policy to be implemented for the sake of mutual welfare [6]. To get all information to relate to the research problem, the researchers use study document techniques in collecting data. The document such as books, information both from online and internet. Data analysis is done by collecting, compiling, and interpreting data, then concluding it. The collected data is analyzed, selected, sorted, and rearranged into a presentation that can provide an adequate picture of the implementation of Government Regulation (PP) Number 11 of 2017 toward SMART ASN, and what the government has been done as well as the application of Government Regulation (PP) Number 11 of 2017.

3. Basic Theory

3.1. Information and Communication Technology

Information and Communication Technology hereinafter referred to as ICT, are all activities related to the processing, management, and delivery or transfer of information between means [7]. In other words, ICT is a technological medium such as computers and networks that are used to process data processing and management as well as transfer information between media that can be used as needed. The role of ICT in government is to be able to improve services to the community without being limited by space and time and the availability of information that is easily accessible to the public.

3.2. The Generation Gap

Generation can be defined as a group of people who were born in a certain period, so they have something in common because they experience several important events together. Often these events have a big influence on aspects of their lives [8]. Some of the influencing aspects include the mindset and point of view that can influence how to respond to something that is done, for example, the baby boomers generation. They tend to be more careful in dealing with the various changes that occur, meanwhile the millennial generation is more adaptable in facing new changes due to the massive influence of ICT.

3.3. Smart ASN

Smart ASN has a profile, ready to face the era of disruption and challenges in an increasingly complex world. The Smart ASN profile includes integrity, nationalism, professionalism, having a
global outlook, mastering IT and foreign languages, having a hospitality spirit, having an entrepreneurial spirit, and having a wide network. Smart ASN which is not technologically illiterate will lead the Indonesian government system to the 4.0 bureaucracy, which of course goes hand in hand with the 4.0 industrial revolution. All types of public services provided by the government will be digital and integrated. Of course, the digitalization of this government system is also balanced with capable cybersecurity [9].

3.4. Big Data
Big Data is a term that applies to information that cannot be processed or analyzed using traditional tools. Big Data is data that exceeds the capacity process of the existing database system covenants. The data is too big and too fast or not under the existing database architecture structure. To get value from the data, one must choose an alternative way to process it [10].

3.5. Government Regulation Number 11 of 2017 concerning ASN Management
Government Regulation (PP) Number 11 of 2017 concerning the Management of the State Civil Apparatus was issued to implement Law Number 5 of 2014 concerning State Civil Apparatus states that “ASN Information System is a series of information and data on ASN employees that are arranged systematically, comprehensively and integrated with technology-based” [11].

4. Findings and Discussion
4.1. Local Government ICT Gap Towards “SMART ASN”
Based on the results of a survey conducted by APJII in 2018, the total population of Indonesia as many as 246.16 million people, 64.8% or 171.17 million people are internet users. The contribution of internet users per region of all the largest internet users is in Java with a total of 55.7%, Sumatra 21.6%, Sulawesi-Maluku-Papua 10.9%, Kalimantan 6.6% and the last is Bali-Nusa. Southeast of 5.2%. This data shows that the Island has a very large contribution in using the internet. It reflects the digital division between Java and Out of Java [12].

The provincial IP-ICT index value in Indonesia, 2018 is at medium and low levels. Based on the IP-TIK score, all provinces get low scores exactly out of Java. The centralization of information, which is still concentrated on the java island, creates inequality and gaps in obtaining information and knowledge in each region. Even on Java island, there are often gaps in the information of ICT. Inequality of IP-TIK in Indonesia such as West Sulawesi, East Nusa Tenggara, and Papua are the 3 lowest provinces with low IP-TIK scores [13]. They are in eastern Indonesia. This shows that ICT development is still not optimal. It will affect local government public services because the system is not yet organized. Although public services will be easily accessible to the public, such as clear service requirements, procedures, time limits, and service rates that are transparent and easily accessible to the public. It can reduce illegal fees, acts of corruption and boost public trust in public services performed. The negative impact of the existence of ICT disparities between provinces is the existence of high development disparities between provinces that have easy access to ICT and provinces that have difficulty accessing ICT.

Regional Work Units (SKPD) in border areas also do not have adequate infrastructure to run e-government. The implementation of e-government in border areas is also not supported by adequate human resources [14]. Kasmad Ariansyah, Vidyantina Heppy Anandhita, and Diana Sari (2019) have found many imbalances in the mastery of ICT skills in several provinces in Indonesia. The majority of provinces that are left behind are provinces in eastern Indonesia [15].

These two studies strongly emphasize if ICT inequality occurs in Indonesia, particularly in Eastern Indonesia, and will certainly affect the readiness of local governments in serving the community. For local governments such as Jakarta, Yogyakarta, Surabaya, and Bandung that already rely on ICT in their work and public services, of course, they are ready to move towards SMART ASN. This is inversely proportional to the Regional Government that has not been able to enjoy ICT, which is one of the main assets towards SMART ASN, especially in the Eastern Indonesia region. This is evidenced by the data released by BPS regarding the 2018 Provincial Access and Infrastructure Sub-Index, as many as 5 other provinces occupied the low sub-index group during the 2017-2018
period, such as West Nusa. Southeast, East Nusa Tenggara, West Sulawesi, North Maluku, and Papua which are all located in Eastern Indonesia [16].

Table 4.1. Access and Infrastructure Subindex by Province, 2018

| IP-ICT Value       | Province                                      |
|--------------------|-----------------------------------------------|
| High (7.26-10.00)  | DKI Jakarta, DI Yogyakarta, Bali, Kalimantan Timur, Kepulauan Riau, Banten, Kalimantan Utara, Jawa Barat, Sulawesi Utara, Riau, Kalimantan Selatan, Jawa Timur, Jawa Tengah, Sumatera Barat, Sulawesi Selatan, Papua Barat |
| Medium (5.01-7.25) | Sumatera Utara, Kalimantan Tengah, Jambi, Kep. Bangka Belitung, Bengkulu, Sulawesi Tenggara, Sumatera Selatan, Gorontalo, Maluku, Aceh, Sulawesi Tengah, Lampung, Kalimantan Barat, Nusa Tenggara Barat, Maluku Utara, Sulawesi Barat, Nusa Tenggara Timur, Papua |
| Low (2.51-5.00)    |                                               |
| Very low (0.00-2.50)|                                              |

Source: BPS, Information, and Communication Technology Development Index (ICT Development Index) 2018

The ICT gap is homework for the Central Government and Local Governments towards SMART ASN industrial revolution 4.0 in 2024. The Central Government and Local Governments still have 4 years to resolve the ICT gap following the mandate of Government Regulation Number 11 of 2017 Article 1 Paragraph 28 which reads, “ASN Information System is a series of information and data regarding ASN employees that are arranged systematically, comprehensively and integrated with technology-based.” This ICT gap is the duty of the Central and Local Governments towards SMART ASN. The implementation of big data is the main capital in ICT. If there are ICT and big data, public services will be arranged systematically, thoroughly, and integrated with technology-based.

The government's efforts to reduce the ICT infrastructure gap through the Palapa Ring, which is a small seven-loop fiber optic telecommunication infrastructure project (for the regions of Sumatra, Java, Kalimantan, Nusa Tenggara, Papua, Sulawesi, and Maluku) and one backhaul to connect everything [17]. In addition, the technological gap that occurs is the difference between using the internet properly and incorrectly. The internet can provide knowledge, creativity, and innovation.

To implement PP No. 11 of 2017, many local governments have implemented technical education and training organized by technical agencies. Technical competence for the appointment of the position is measured by three things, which are the level and specialization of education, functional technical training, and technical work experience [15]. Technical training consists of various fields, among which are ICT which is needed by ASN. Technical training in ICT has an important role in realizing technical competence in the ICT field for civil servants. ICT training is very useful for getting to SMART ASN.

4.2. Regional Government Generation Gap Towards "SMART ASN"

Smart ASN which was launched by the government intends to change the bureaucratic pattern to make it more effective and efficient. Smart ASN works effectively and efficiently with the help of technology, therefore smart ASN must be able to adapt immediately to all jobs that use technology. The utilization of ICT is key for ASN because the information will have an impact on jobs. Changing the mindset of ASN, such as to serve, not to be served, leave old patterns, change the paradigm with innovation in work programs. The ASN environmental gap occurred in ASN Traditional Generations born before 1946, Baby Boomers who were born between 1946-1964, generation X born between 1965-1980 and generation Y or Millennials born between 1980-1995, generation Z who was born between 1995-2010 [18].

ASN was mostly in the age group 51 - 55 years, followed by the 56 - 60 age group [19]. The statement is reinforced by the data below.
### Table 4.2. Number of Local Government Employees by Age

| Age       | Generation | Number of Employees | Percentage |
|-----------|------------|---------------------|------------|
| 18-25 years | Generation Z | 40,868              | 4.36%      |
| 26-40 years | Generation Y (Milenial) | 313,334           | 33.50%     |
| 41-55 years | Generation X | 467,895             | 50.02%     |
| 56-60 years | Baby Boomers | 113,343             | 12.12%     |
| Total     |            | 935,440             | 100%       |

*Source: ASN Statistics Book 2019 (BKN)*

Based on the 2019 ASN Statistics book (BKN), 12.12% or as many as 113,343 ASNs are in the 50-60 year or Baby Boomers. The baby boomers generation is an old generation, which made it difficult for them to use technology such as computers. Meanwhile, Generation X can adapt to technology but not for everyday life as has been done by Generation Y (Millennial) and Generation Z. Proportion of Generation Y (Millennial) will increase in the future [20].

To change the structure of the ASN and performing a SMART ASN, restructuring is required so that the composition of the ASN is filled with more specific positions with technical/functional expertise so that it is compatible and capable of implementing national development [21]. By utilizing collaboration between generations, the gap between generations of Regional Government Towards "SMART ASN" industrial revolution 4.0 can be easily avoided per Government Regulation Number 11 of 2017 Article 1 Paragraph 1, which states that the management of civil servants is to produce civil servants who are professional, have basic values, professional ethics, free from political intervention, free from practices of corruption, collusion, and nepotism.

Also, to support the implementation of Government Regulation Number 11 of 2017 towards SMART ASN, the local government implemented a merit system. Most of the provinces fall into category II “Poor”, and no province falls into category IV “Very Good”. This condition illustrates that the Provincial Government has not implemented system services, especially in several Provinces in Eastern Indonesia (Category I). Central Indonesia and the island of Sumatra are in category II, while provincial governments that are in category III "Good" are in Java. This is due to several factors, like the ability of the regions to implement the merit system in terms of human resources, budget, limited supporting facilities, and different understanding of the application of the system itself. In addition, the implementation of this provincial government system is still not supported by regional heads and sufficiently strong political intervention [22].

### 5. Conclusion

Based on the results of the study, it can be concluded that there are still many local governments that have not carried out civil servant management as stipulated in Government Regulation Number 11 of 2017, such as preparation and determination of needs, career development, and unclear career patterns, making the generation gap increase. There are still provinces that have not been able to fully access ICT so that they can’t utilize the big data optimally.

The effort to implement Government Regulation Number 11 of 2017, local governments can carry out technical training supported by technical agencies; preparing and determining education and training; career development; and a clear career pattern; also a system that is appropriate for ASN.

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