

CHAPTER I

INTRODUCTION

1.1 Background

The industrial revolution gives a tremendous change to the order of human life. This change can be seen in the industrial era 4.0, which is an era that is closely related to the development of information technology. Industrial revolution 4.0 has fundamentally changed human life in various sectors of life (Harahap & Rafika, 2020). The government service sector is no exception, where the use of technology is a must. It is due to the demands for bureaucratic reform and transformations in public services that force the government to increase the competence and individual capacity of the State Civil Apparatus in providing public services.

Based on the data from the Ministry of State Apparatus Empowerment and Bureaucratic Reform, there are 30% or around 1.35 million state civil servants whose performance is in the low category (Komisi Aparatur Sipil Negara, 2020). Then, Asman Abdur, as the Minister of State Apparatus Empowerment and Bureaucratic Reform, also revealed that out of 4,475 civil servants in Indonesia, 64% of them only have administrative skills (Anggoro, 2017).

Undeniably one of the things that can affect the low quality of service is the development of leadership training. Leadership is the basic foundation that determines the organization's goals, can motivate followers to achieve these goals, and can affect the achievement and quality of public services. Therefore, to provide assistance or, in this case, mentoring, the government should pay attention to adjust service delivery to

the community to face the Industrial Revolution 4.0. It can be done by utilizing digital-based technology because, with technology, transparency, speed, and convenience, the key to a service will be realized.

Mentoring is a method used in an organization in government to develop and maintain the competence of its staff (Rosmaya, 2018). Usually, mentoring for public servants is done conventionally, namely by holding face-to-face meetings, then training for several days to increase their capacity. Mentoring is a process related to disseminating knowledge, social capital and then is connected to psychosocial support which recipients can significantly consider relevant with work, professional development, or career (Neely et al., 2017).

Currently, Indonesia is facing and trying to adapt to the era of the industrial revolution 4.0. This condition is directly demanded all aspects and sectors to adapt to long-distance communication technology, including Indonesia. As one of the country's foundations, the government must still provide full service to its people. It can be done by maximizing the potential of human resources in the government or bureaucrats who work as state civil servants, such as building a virtual mentoring system.

To maximize the implementation of mentoring, the use of technology is an alternative in running it. The implementation of mentoring by utilizing technology is referred to as Digital Mentoring Technology. The existence of digital mentoring technology can make it easier for the government to maximize the implementation of mentoring because there are no distance and time limits which are usually obstacles in a conventional way or face-to-face meetings (Merritt & Havill, 2016). Thus, with these

advantages, the use of technology indirectly also impacts the performance of government services (Nurjanah et al., 2021).

On the other hand, digital mentoring technology offers many conveniences, including reducing costs, being able to provide additional and timely support, providing opportunities for privacy and honest discussion on sensitive issues, increasing knowledge assimilation, facilitating the formation of social support, and maintaining communal bonds and learning (Chong et al., 2020). Moreover, the current conditions and situations that force the acceleration of the bureaucracy and the state of the COVID-19 pandemic are the main reasons for developing digital mentoring technology.

In this study, the Republic of Indonesia State Administration Agency (LAN RI) is closely related to the development of digital mentoring technology. As an agency with duties and functions in developing the quality of state civil apparatus resources, LAN has a large enough share in utilizing digital mentoring technology as stated in the Presidential Regulation of the Republic of Indonesia Number 79 of 2018 concerning State Administration Agency Article 3. The regulation explains one of the tasks of LAN, namely fostering, organizing, planning, and supervising both education and training of ASN employees and national ASN needs.

The regulation above aligns with the State Administration Agency of the Republic of Indonesia Number 10 of 2018 concerning the Development of Civil Servant Competencies. LAN is a non-ministerial government agency that has the authority to conduct studies and training for ASN. LAN has undertaken many forms of leadership

training through the education and training held, but the implementation is still primarily done in a conventional way (face to face).

Based on the background of study described above, it can be said that the development of digital mentoring technology is a necessity that can be owned and utilized by the State Administration Agency of the Republic of Indonesia in carrying out its duties. The various facilities offered by using technology in mentoring can be considered the main reason for developing digital mentoring technology.

Therefore, this is a fascinating study to see the form of public leadership development through digital mentoring technology that can effectively change mentoring methods. Therefore, researchers is interested in studying the development of public services through digital mentoring technology at the State Administration Agency of the Republic of Indonesia.

1.2 Research Questions

1. How to develop public leadership through digital mentoring technology at the State Administration Agency of the Republic of Indonesia?
2. What are the factors that influence public leadership development through digital mentoring technology at the State Administration Agency of the Republic of Indonesia?

1.3 Objectives of Research

1. To find out the form of public leadership development through digital mentoring technology at the State Administration Agency of the Republic of Indonesia.

2. To find out the influencing factors of public leadership development through digital mentoring technology at the State Administration Agency of the Republic of Indonesia.

1.4 Benefit of Research

1.4.1 Theoretical Benefits

1. The results of this study are expected to be a representative reference who can add insight into the development of public leadership through digital mentoring technology in public services.
2. Become the primary reference for developing public leadership through digital mentoring technology in public services.

1.4.2 Practical Benefits

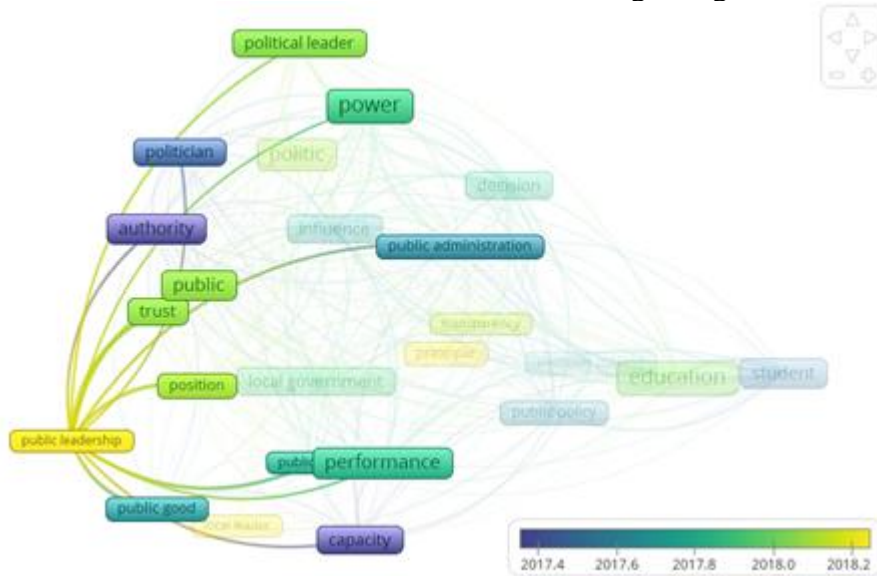
1. The results of this study are expected to provide a lot of insight and repertoires in developing information technology-based public leadership in the Institute of State Administration Agency of the Republic of Indonesia.
2. The results of this study are expected to provide benefits for the State Administration Agency of the Republic of Indonesia in developing public leadership through digital mentoring technology.

1.5 Literature Review

This subsection explains some parts related to the research, namely public leadership and digital mentoring technology. The literature review described in this study is closely related to the background of the problem described in this study. Some literature reviews include:

1.5.1 Public leadership

Figure 1. Visualization of Previous Research Networks Regarding Public Leadership

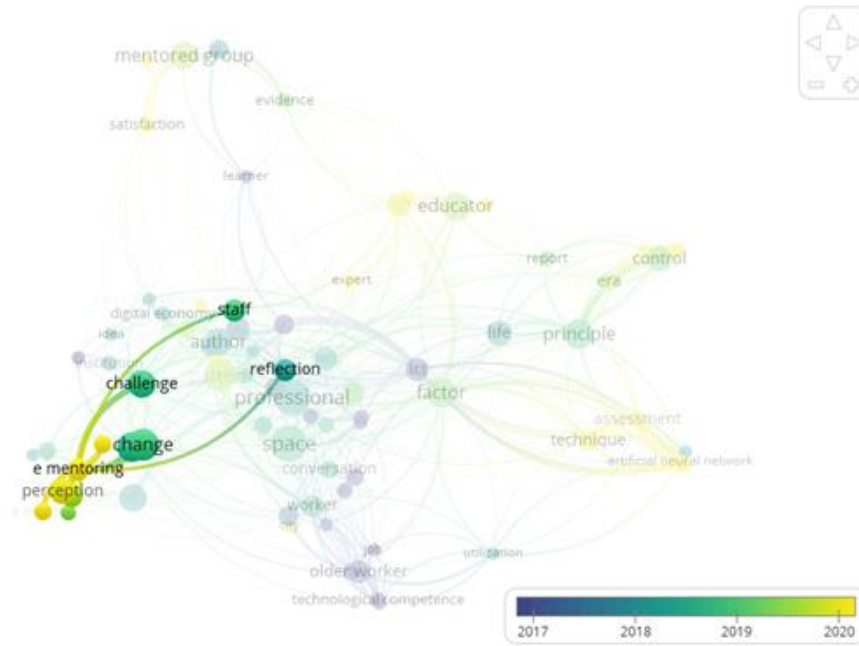


Source: Vos Viewer

The figure above is a mapping of the network of previous studies related to public leadership. Four colors indicate the difference in years in the study. The purple colors are "capacity" and "authority," from 2017 to 2018. Then the blue color involves "public administration," "politician," and "public good." The third color is dark green and light green which has some keywords, namely "power," "performance," "political leader," "public," "trust," and "position." Then the last color is yellow with the keyword "public leadership." In this network, the "public leadership" network is connected to all the networks mentioned above. Thus, the research related to public leadership becomes an exciting study to discuss, especially concerning the development of human resources for the State Civil Apparatus.

1.5.2 Digital Mentoring Technology

Figure 2. Visualization of Previous Research Networks Regarding e-mentoring



Source: Vos Viewer

The figure above is a mapping of the network of previous studies related to e-mentoring, which is determined by different default colors. Based on the picture, it will be explained in three different colors. The blue color is the keyword "reflection," which is from 2017 to 2018. Then, the light green and dark green colors, which have the keywords "staff," "challenge," and "change," are in 2018 to 2019. Then, the last one, which is yellow with the keyword "e-mentoring" "perception," is in 2020. In this network, "e-mentoring" is linked to several other networks, namely "staff", "reflection", "challenge", "change", and "perception". Based on the results above, the

research on digital mentoring technology or e-mentoring is an important study to be discussed in more depth.

Eldo and Mutiarin (2019) revealed that the essence of public service is the government's role in fulfilling the rights of the people to get the best service, whose ultimate goal is to create social welfare. To maximize the part of the government, in this case, the state civil apparatus, it is necessary to develop public leadership. Leadership affects the performance of ASN, Abdullah (2018) found that the development of leadership is a program that aims to establish integrated leadership qualities of individuals and organizations to achieve the organization's goals. A study from J. Nurung et al. (2020) revealed that leadership could increase the motivation of ASN to improve the quality of public services. There is a strong relationship between leadership, both transactional and transformational leadership, on job satisfaction of ASN and the quality of public services.

In line with the above, Tini (2019) asserts that public services carried out by ASN could be optimized with the presence of (digital) technology to achieve various conveniences, transparency, and excellent service. To improve the face of public services, the use of digital-based technology can be a solution. Mutiarin et al. (2019) also say that the use of information technology will impact the management of an organization, especially for developing, creating, integrating, and applying knowledge.

Wiryanto (2018), in his research, also agrees that digital-based technology can be utilized through the development of the competence of the state civil apparatus to overcome the problems and challenges faced in public services. The method that can

be used is digital mentoring technology. It is in line with the expression of Neely et al. (2017) that with more extraordinary technology and virtual growth, it will increasingly influence organizations to use mentoring technology in socializing, training, and developing state civil servants' competence.

Research conducted by Tabrani (2020) revealed that mentoring is a relationship based on trust in the form of concern that will improve performance, accelerate empowerment, and increase motivation. Singh & Kumar (2019) also express that digital mentoring technology is a method of mentoring from a mentor to gain knowledge and accelerate the mentee's growth with the support of the surrounding environment so that it can provide indirect benefits. The advantages offered by digital mentoring technology are that it can increase the potential of mentors, and can reach geographic boundaries, and reduce stereotypes and biases (Merritt & Havill, 2016). A study conducted by MacDonald et al. (2020) revealed that digital mentoring has been effective in helping to reach various sources, increase emotional well-being, self-confidence, and ability to socialize.

Table 1. Literature Review

No	Writer	Title	Result
1.	Dwian Hartomi Akta Padma Eldo and Dyah Mutiarin (2019)	Analysis of Public Service Innovation Best Practices (Study on Service Innovation "Kumis Mbah Tejo" in Tegalrejo District, Yogyakarta)	This study analyzes the concept of Best Practice which consists of elements of impact, partnership, leadership, sustainability, and transferability. The results of this study explained that existing service innovations have received a good response in the community. The impact of the invention is exciting and can be felt directly and getting people's satisfaction in this "Kumis Mbah Tejo" service innovation without the need for all the elements that are the basis of the analysis to be adequately fulfilled.
2.	Abdullah (2018)	Competency Development Patterns for Government Apparatuses in Facing Global	This research focuses on answering questions related to the effectiveness, benefits, and development of education and training conducted by the Ministry of Energy and Mineral

		Challenges (Case Study on Implementation of Level IV Leadership Training at the Ministry of Energy and Mineral Resources)	Resources (KESDM). The results of this study revealed that the activity carried out by MEMR for Level IV Diklatpim alumni at MEMR in 2017 is following the trend of leadership development models that are considered adequate for now. Alumni of the leadership training program also benefit from the training that has been carried out.
3.	Nurung et al. (2020)	The Effect of Leadership on Public Service Quality	This study aims to confirm the relationship between leadership and public service motivation, then the relationship between public services and the quality of public services and job satisfaction of state civil servants. The results revealed that the full mediator between leadership and the quality of public services with job satisfaction of the state civil apparatus is the motivation of

			public services. This study proves that good leadership will increase public service motivation, which will impact improving the quality of public services and job satisfaction of state civil servants.
4.	Dwi Listia Rika Tini (2019)	IT-Based Public Service Innovation in Facing the Industrial Revolution Era in Sumenep	The results of this study indicated that the government of Sumenep Regency has implemented IT-based public services in running the government. The forms of IT-based services are Online Single Submission (OSS) at DPMPTSP, Digital School, SI MANTAP (integrated education service information system), Sakura Mesem (one door for population administration to be prosperous and happy), I-Sumenep, Barokah Tani, Cloud Application, SIKDA/SIMPUS, digital-based village community services and complaints, SIAGA, Smart ID Card, Smart City, Smart Branding, Hi-Sumenep.

5.	Wisber Wiryanto (2018)	Digital-Based Public Services In Indonesia In The Industrial Revolution 4.0	The results of this study explained that digital-based public services face various obstacles and challenges. Then. To solve this, the government established institutions to facilitate alignment between ministries and agencies so that Indonesia could compete with other countries in public services.
6.	Andrea Rae Neely, John L. Cotton, Anthony David Neely (2016)	E-Mentoring: A Model and Review of the Literature	The results of this study indicated that an organization can gain a competitive advantage by embracing technology. E-mentoring is one way for the organization to train and cost-effectively develop individuals without any structural limits and can be implemented as effectively as face-to-face mentoring.

7.	Ahmad Tabrani (2020)	The Influence of Leadership and Mentoring on Motivation in Serving	This study indicated that the majority of mid-level leaders of the Integrated Village Service Foundation have an excellent perception of the influence of leadership and mentoring they receive from their leaders and mentors and influences work motivation.
8.	Preeti Singh and Kushal Kumar (2019)	E-Mentoring: Alternative Paradigm for Entrepreneurial Aptitude Development	This study explained no significant relationship between education, gender, and family business background in e-mentoring. In general, participants did not believe that e-mentoring could help increase business talent, but they still expressed their readiness to accept e-platforms for e-mentoring.
9.	Stephanie M. Merritt and	Electronic And Face-To-Face Communication In Mentoring Relationships	This study indicated that virtual meetings by telephone or email are an average of 69% of the total number of couples studied. The frequency of interaction is essential. The higher

	Lyndsey Havill (2016)		the digital exchange, the more practical understanding of the material will be achieved.
10.	Mandi MacDonald, Andrew Dellis, Shanaaz Mathews, and Jenna-Lee Marco (2020)	Implementing E-Mentoring With Care-Experienced Youth Under "Lock-Down"-A South African Experience	The results of this study showed that E-mentoring presents specific challenges and benefits in South Africa. Although young people do not all have equal access to digital infrastructure, it can be overcome by investing in resources, mentors, and mentees. Then, online platforms' geographical reach can give young people access to a more diverse range of mentors.

Based on the previous studies described above, it can be concluded that previous research tends to discuss related to training and education, e-learning, or the use of technology but in health and education area. There are some literature talk about the use of technology for public service, but not describe about the develop of public leadership trough digital mentoring technology for State Civil Apparatus. The novelty of this research is that this research focuses on developing public leadership with digital mentoring technology and a case study at the State Administration Agency on the development of digital mentoring technology in government.

1.6 Theoretical Framework

1.6.1 Public Leadership

Public leadership has a crucial role in the state apparatus and is believed to determine the direction in the course of a government. Leadership is the key to running an organization. Apriani (2015) revealed that a leader must be a driver, mover, protector, servant, and responsible for various public service activities. Public leadership is generally assumed to be related to public service leadership. Leadership is an action taken to positively influence the behavior of others by helping to increase knowledge and skills (Rosmaya, 2018).

Vogel and Masal (2015) say that leadership is crucial to achieve efficiency and accountability of public organizations. With the development of the times, leaders must maximize their potential and creativity in performing services. In the public sector, leadership is a priority in preparing the public sector for the future. It requires collaborative leadership that can involve the development of alliances and partnerships in the public service sector (Page, 2016). In its development, public leadership must also pay attention to and develop the capacity to face technological challenges that arise in the future (Andrews, 2019). Using technology in government requires good quality, management, and regulation in running it to provide optimal results. Tummers and Knies (2014) describe the five dimensions of public leadership habits, namely:

a. Accountability

Accountability is paramount in the public sector. Accountability in leadership here defines how leaders can stimulate their members to justify and explain

actions to stakeholders. Accountability is closely related to responsibility in running an organization, whether it is a success or failure.

b. Lawfulness/Obedience

The second thing that is important in leadership development and its relation to administration is Lawfulness or Obedience. It is closely related to legal compliance (obedience). Leaders must be able to prevent or reduce violations of the law or comply with existing regulations.

c. Ethics

Ethics of leadership is related to behavior following normative views from actions and personal relationships that are closely related to members of a leader. One of the concepts of public leadership must be able to encourage state civil servants to behave ethically.

d. Loyalty

Loyalty can be described as a leader who stimulates his members to align their actions with existing interests. ASN commitment, in this case, is assessed to fulfill public policies determined by politicians.

e. Network governance

Network governance relates to how a leader can actively encourage employees to connect with stakeholders outside their department.

1.6.2 Digital Mentoring-Technology

Mentoring is a process of informal transmission of knowledge, social capital, and support relevant to work, career, personal or professional development (Gottlieb et

al., 2017). Bierema and Merriam (2002) found that digital mentoring technology is a computer-mediated and mutually beneficial interaction between tutors and students that provides learning, counseling, facilitation, coaching, and modeling in a way which is often borderless, inclusive, and qualitatively different from face-to-face mentoring. In simple terms, digital mentoring technology is a method used by an organization to maintain and develop the competence of its members to maximize a form of public service (Rosmaya, 2018).

Digital mentoring technology involves media users utilizing electronic devices for long-distance communication (MacDonald et al., 2020). Through proper assistance, using digital mentoring technology in public services can help in faster knowledge transformation, there is no distance or time limit, and career success or personal development will impact the quality of service (Singh & Kumar, 2019). There are five stages for developing competence to improve public service, as follows: acknowledging the competency, understanding the competency, demonstrating the competency, practicing using the competency, and implementing the competency (Rosmaya, 2018). These are steps that must be understood in carrying out a development in government services.

A two-way involvement is needed between the mentor and mentee to carry out digital mentoring technology. There are several things to be achieved in conducting mentoring, according to Rosmaya (2018), namely performance, personal development, and career development. The importance of using digital technology in mentoring will certainly significantly impact the performance management and quality of public

services. Neely et al. (2017) explains that in conducting digital mentoring technology, there are main things that need to be considered, namely the characteristics of mentors and students (mentees). In digital mentoring technology, the use of technology models will affect the relevance and success. For example, if the mentor and mentee already have a high level of computer-self efficiency (CSE), it will affect motivation in participating in digital mentoring technology. Some variables are used to see this, including gender, age or identity, computer literacy, and perceived similarity (Neely et al., 2017). These five variables can significantly affect the success of digital mentoring technology in public services.

1.7 Conceptual Definition

1.7.1 Public Leadership

Public leadership is a form of leadership that is the key to carrying out government services. It requires a leader to be a driver, mover, protector, servant, and responsible for various public service activities.

1.7.2 Digital Mentoring Technology

Digital mentoring technology is a process of transferring knowledge, social capital, and support relevant to work, career, personal or professional development with computer-mediated and mutually beneficial interactions between tutors (mentor) and students (mentee) who provide learning, counseling, facilitation, coaching, and modeling through the use of technology in its implementation.

1.8 Operational Definition

The operational definition in this study will highlight how the digital mentoring technology develop at the State Administration Agency of the Republic of Indonesia is:

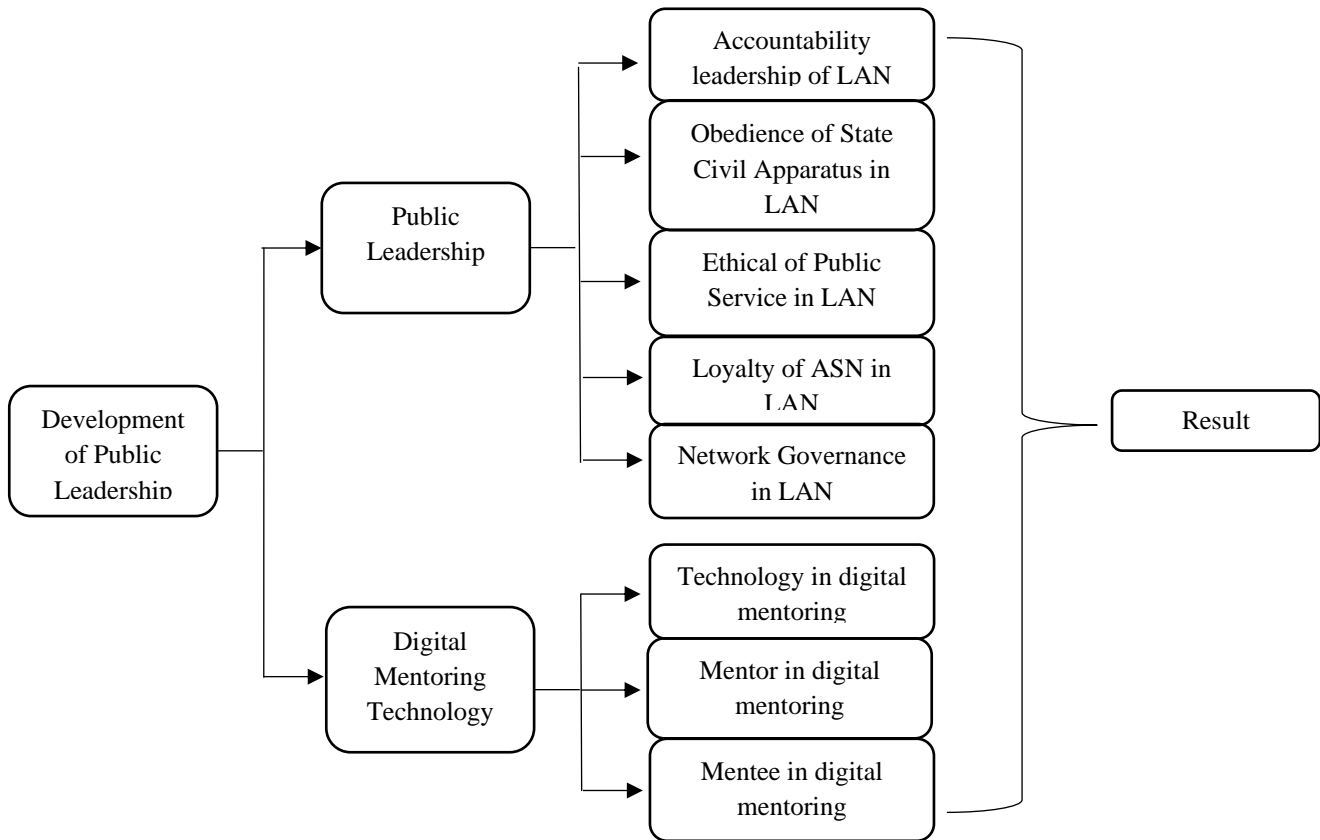
Table 2. Operational Definition

Variable	Indicator
Public Leadership	<ul style="list-style-type: none">a. Accountability leadership of LANb. Obedience of State Civil Apparatus in LANc. Ethical of Public Service in LANd. Loyalty of ASN in LANe. Network governance of LAN
Digital Mentoring Technology	<ul style="list-style-type: none">a. Technology in digital mentoringb. Mentor in digital mentoringc. Mentee in digital mentoring

Source: Author's Analysis

1.9 Framework of Thinking

Figure 3. Framework of Thinking



Source: Author's Analysis

1.10 Research Method

1.10.1 Type of Research

The research method is a scientific step or procedure that must be carried out systematically with a specific purpose to answer the problem under study. The method used is a qualitative research with a descriptive approach. A Qualitative research is used to answer questions about meaning and perspective, experience, and most often the author's opinion (Hammarberg et al., 2016). Then, Al-Hamdi et al. (2020) explain

that qualitative research is an effort and interpretation through the reality of life based on the researcher's understanding. This method collects data in a natural setting to interpret the phenomena where the researcher is the key instrument, and sampling data sources is carried out purposively and snowballing.

1.10.2 Research Setting

This research was conducted at the State Administration Agency of the Republic of Indonesia office, located at Jalan Veteran, No. 10, Gambir, Central Jakarta. The researcher selected the location because it is the center of several Indonesian Administrative Agency offices in Indonesia.

1.10.3 Data Source

The data used in this research is secondary data that took from various kinds of literature such as journals from LAN, LAN year-end reports, LAN policy briefs, news of LAN, website LAN, legal regulations related to this research, and sources from the internet as the secondary data. Secondary data is one of the strategies used to explore a new problem or test the results of existing research without the need to conduct interviews, observations, or surveys. The use of secondary data is to emphasize the data sources owned by utilizing existing data by generating new ideas. In addition, the authors can explore the data from a different point of view by conducting verification, refutation, and refinement. Thus, the secondary data used can clarify research problems based on experiences similar to the author's research.

1.10.4 Data Collection Technique

Data collection is a technique used by the researcher to obtain information and collect the necessary data. This data collection helps strengthening the analysis and accuracy of research (Al-Hamdi et al., 2020). In this study use secondary data which documentation and use Nvivo 12 Plus for analyzing the data. In this study, the techniques used were:

1. Documentation

The first technique used in collecting data is the documentation technique. This technique is one way of collecting data through archives or books on theories, arguments, data, or laws closely related to research problems (Al-Hamdi et al., 2020). In addition, documentation techniques can also use archives from LANs or individuals in writing or pictures from someone. Next, these documents were analyzed for further processing and become data that supports this research.

2. Ncapture

Ncapture is one of the features used in information processing to get data from internet platforms such as social media Facebook, Twitter, Instagram, and online news portals. Ncapture is downloaded on the Google chrome application, which was be used to import data from news portals or social media, and then put into the Nvivo 12 Plus data folder.

1.10.5 Data Analysis Technique

In qualitative research, data analysis techniques become the primary instrument to see the objectivity of the data. Data analysis is a process to find and compile the

results of interviews, notes obtained in the field, or from various sources that are then accumulated and put together to construct the findings into units to become important information (Rijali, 2019). Then, from the analysis, the conclusions were obtained on the object of research and become data reinforcement in the study conducted. One of the programs or applications used to perform data analysis is the Nvivo 12 Plus application. The data analysis was linear from the data collection to final the findings. Thus, the concepts, categorizations, and descriptions must be developed based on events that have been obtained in the field. Miles and Huberman (1992) provide an overview related to the data analysis process, namely:

a. Data collection

Simple data collection was an integral part of data analysis, carried out through interviews and documentation in this study.

b. Data reduction

Data reduction is an activity to conclude data, and then sort it into certain concepts, categories, and themes. The function of the results of this data reduction is processed to make it look complete. The forms can be in the arrangement of sketches, synopsis, matrices, and other conditions. Data reduction starts from creating a summary, making small notes, exploring themes, and analyzing relevant information in the study to facilitate the presentation and affirmation of conclusions.

c. Data Presentation

The presentation of data in qualitative research can be presented in narrative text, diagrams, tables, charts, or in the form of matrices.

d. Conclusion/Verification

Efforts in concluding are carried out continuously, starting from data collection. The researcher records the meanings, patterns, explanations, causes, and effects to increase the initially unclear data to become more detailed and precise. These conclusions are also verified by rethinking during the writing process, reviewing field notes, having discussions with others to develop intersubjective views, and other efforts to support the study's conclusions.

Therefore, the research results collected could be readjusted with the reduction and display of data that could be agreed as a scientific written report and had a high level of accuracy and trust. One of the applications used in data analysis was Nvivo 12 plus, the latest version of the existing Nvivo application. The use of Nvivo software helped in the process of data reduction and presentation of coding results which can be in the form of graphs, diagrams, patterns, audio, and video data transcripts, correcting and analyzing test results, and can develop theoretical concepts whose sources come from data that has been obtained and existed before (Bandur, 2019). Some of the features used included:

a. Crosstab Query

Crosstab query is one of the techniques used to find out research variables that influence the object or focus of research studies with the results of displaying the percentage of numbers, graphs, and conclusions (Hai-Jew, 2020).

b. Cluster Analysis

The purpose of cluster analysis in Nvivo was to explore the correlation between one text and another. Cluster analysis is a technique used to analyze and group files, nodes, documents that have the same value so that researchers can find out similarities and differences based on distance. The cluster analysis results can be used to visualize: similarities and differences across files, similarities, and differences across file nodes (Ozkan, 2004). The cluster analysis in this study used the Pearson correlation coefficient, Jaccard's coefficient, Sorensen's coefficient (Jackson & Bazeley, 2019).

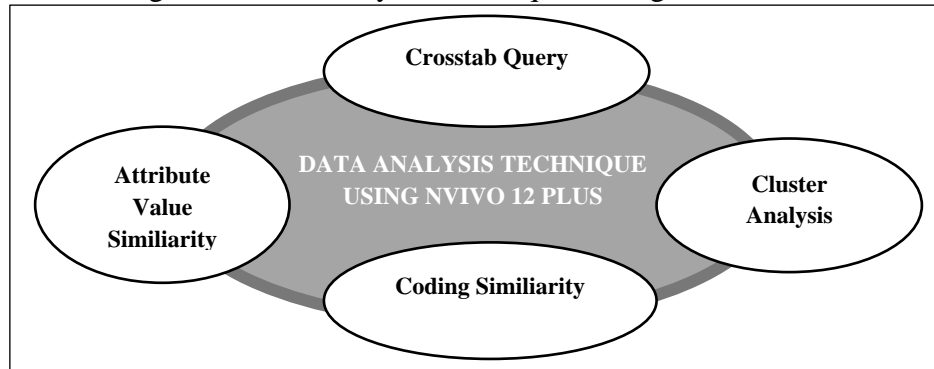
c. Coding Similarity

Coding similarity is comparing the results of coding between a file and a node. Files or nodes that have been coded are grouped based on high values and low values. The results of these values can be displayed in clusters (Hai-Jew, 2020).

d. Attribute Value Similarity

Attribute value similarity is an analysis that compares the attribute values of files or file nodes. Files or file nodes with high attribute values are groups in the cluster analysis diagram, while files or nodes with lower values are further grouped in cluster analysis (Jackson & Bazeley, 2019).

Figure 4. Data Analysis Techniques Using Nvivo 12 Plus



Source: Author's Analysis