IT Governance in Digital Era in Jakarta Provincial Government

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Abstract—E-government refers to the deliverance of information from national or local government and services from Internet or another digital tool to the citizen or other government institutions. E-government facilitates the provision of relevant government information in electronic form to the citizens promptly; better services for the citizen; the citizen development through information access without bureaucracy; the increasing productivity and cost saving in doing business with supplier and customer from government; and participation of public policy in decision-making. E-governance refers to how a manager and supervisor utilize IT and Internet to execute their function in supervision, planning, organization, coordination, and employee effectively. Principle of IT Governance in the digital era must not be separated from the good information technology governance. Information technology has been entered in business strategy of government, so the decision-making and the supervision have become an important agenda that discussed in the meeting of high officials in the government. Nowadays, there are many cases of digital asset misuse, one way to prevent it is to implement IT good Governance in government.

Keywords— IT Governance, E-Government, Digital Era

I. INTRODUCTION

In recent years, information technology along with company governance has begun developing the research field of IT in business and government. The use of Information and Communication Technology (ICT) by government in e-government is to provide effective and efficient services to citizen.

IT Governance in government aims at supporting governance performance of government and support services to people with a governance system. This system integrates the governance asset, human resources, financial, and IT infrastructure in government performance. The results of the performance will be maximized if the mechanism of governance with IT-based has strategy or purpose or goal in its implementation process. Thus, in designing a format of good governance with IT-based needs vision, strategy, and purpose as well as target in its development and harmonization between strategy, governance mechanism, and objective of e-government development. So, it is to create effective and efficient governance and not make it difficult for people to get public services [1].

E-government should be managed without limitation of time and distance to create high productivity level and effectiveness in electronic services. Government institution must understand the quality of e-government services as a very significant factor to get the efficiency, feasibility, transparency, and trust. IT Governance can play an important role to achieve those factors. The government is responsible for the development of e-government by using IT Governance, to provide a better quality to serve citizens, business, or other public companies.

According to IT Governance Institute, IT governance is part of the government consists of leadership, structure, and organization process to ensure that IT organization support and expand the strategy and purpose of organization [2]. IT Governance emerged as a critical issue for government organization to achieve high quality services.

E-government is a term for web-based service from local, state, and federal government agencies. In e-government, the government use information technology and especially Internet to support government operation by including the citizens, as well as providing government services [3]. E-government used by government agencies which have an ability to change the relation with citizen, business, and other government agencies. Figure 1 shows the Diagram of IT Governance and Communication in Jakarta Provincial Government which is running at the moment.

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Fig. 1. Diagram of IT Governance and Communication in Jakarta Provincial Government [4]

This technology can serve different purposes, such as improvement public services, interaction with business and industry is getting better, empowering people through access to information, or more efficient government management. The benefits are minimizing corruption, increased transparency, revenue growth, and cost reduction. This benefit suits with vision and mission of Jakarta Provincial Government. Jakarta provincial government tried to solve all the problems with ensuring the problem solution for the citizen as its orientation, breaking the comfort zone, development reorientation, transformation from selfish to service, and avoid corruption, to realize an innovation. Public participation can implement and improve innovation by doing a dialogue, equitable distribution, and digitalization to speed up the process. The expected result is a big change, increased knowledge, skills development, and sustainable development.

The discussion of a digital asset is not separated from management of information technology in infrastructure area of software and hardware, process, and human resources to support the management. Digitalization of transaction and information in various sectors is driven by business need to face the competition, stakeholder expectation, and government efforts to improve efficiency of business process.

This articles goal is giving a recommendation to DKI Jakarta Provence Government related to about things that should anticipate related to IT Governance application during digital era.

Research question of this article is: what aspects that should take a note and anticipate by DKI Jakarta Provence Government in IT Governance application in the process of increasing the quality of public services, a good interaction

between business and industry, public empowerment through information access and efficiency of government management.

II.   RELATED LITERATURE

Strategic mechanism of IT Governance is considered as important factor in implementing an innovation of e-government services. The ability to develop e-government services throughout the life cycle is depicted in several stages. Reference [5] explains a specific model to transform internal government operation. The term 'governance' in IT gives a broader picture of the policies, structures and management processes associated with IT function [6]. IT Government is not just a concept but also a natural phenomenon. IT Governance embedded in culture, internal process, and work practice of an organization naturally and has resulted in perspective of social behavior from IT Government in an organization [15]. The early definition of IT Governance is given by many researchers who assume that IT is a centre of decision-making and responsibility [7]. Reference [8] explains the effectiveness of IT governance is a single predictor of the organization value produced by IT. The more comprehensive definition of IT governance is IT governance of company which discussed the definition and the implementation of process, structure, and relational mechanism which allow business and IT person to do their responsible in supporting the business/IT aligned with value creation of investment of IT business [9]. In research of IT Governance, [9] defines framework that represents convergence and aggregation from two streams.

E-government is a communication between government and citizen by using computer or Wide Area Network (WAN). World Bank defines e-government because it refers the use of information technology (like Wide Area Networks, Internet, and mobile computing) which has ability to change the relation between society, business, and other government power (World Bank e-Government) [17]. Reference [11] defines that e-government is a transformation initiative by leveraging the ability of information and communication technology; (1) to develop and give high quality, smooth and integrated public services; (2) to enable effective constituent relation management; and (3) to support development of social and economy for every citizen, organization, and civil society at local, state, national, and international. This definition gives insight to importance role of IT and e-government complexity. Most of the study discussed the relation between e-government services and IT governance theoretically contextual, fragmentary and in many cases. Therefore, some of the studies discuss the importance of ITG to the successful implementation of EG and efficient work.

Reference [12] explains that the implementation of digital era to the government gives a change in the development of social and technology. The social change increased the central role of online process. Cloud computing and big data technology offers new potency to support the government in future digital era.
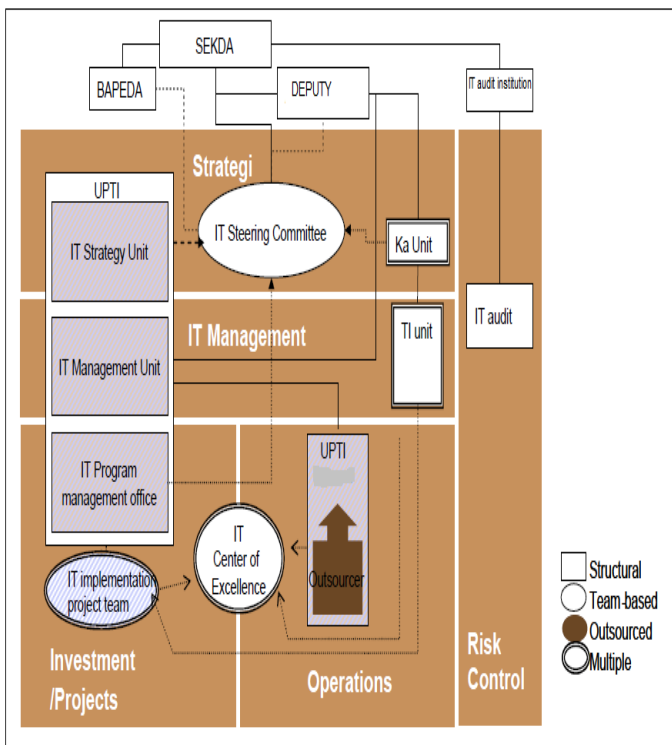
III. RESEARCH METHOD

Literature Review is a method to identifying and reviewing the previous study about IT Governance. Using a systematic review, this article offer a rigorous standards, aimed not only to summarize the existing research but includes the element of analytical criticism. The result giving us the data for literature review. [24].

IV. IT GOVERNANCE IN DIGITAL ERA

Reference [12] explained that the digitalization includes a thorough adaptation of the public sector and the business model of government. Digitalization is also a key stimulus for increasing the bureaucratic process of service.

Digital technology inevitably has utilized all parts. The more digital, the approach is also more personal [21]. Facing the era of digitalization of data and information, in implementing IT Governance government should pay attention to the following things:

- Support and guidance from central government
  Implementation of IT Governance should get full support and guidance from central government. Strategies can be business requirement and give optimal benefit for stakeholder which is part of top management in government. IT steering committee can assist the process of guidance and evaluation on IT strategy implementation.
- Good Planning and Monitoring
  IT strategy and plan must be aligned with vision and mission of government. In this digital era, the implementation of government business strategy will be closely related to technology. Government need to follow the development of technology and should always adapt in implementing IT strategy and plan, so the investment in infrastructure and human resources can be made in the right way.
- The security of digital asset
  The security risk is an important aspect that needs to be managed. To ensure the security of digital asset, the principles of risk management and internal controller need to be done
- Compliance with regulation
  One aspect of the implementation of good IT Governance is to ensure that companies adhere to the rules, so as to avoid the sanctions both material and reputation.
- The increase of role of top management in government is as communication media to conduct substantive censor that acts as an aberration corrector to the dominant social norms, with corrective pressure against subsystem that may come out of the rule.

V. RESULT AND DISCUSSION

IT Governance represents an activity to build successful e-government. Each citizen has different priority and need, and there is different model for e-government and IT Governance. The success of e-government depends entirely on the needs and role of community. IT governance can prove its effectiveness to achieve service quality, community services, and innovation which include the organization's strategy. Management and implementation of new IT projects, such as

infrastructure and the introduction of new IT technologies, it is recommended to use the IT Governance frameworks such as COBIT, ITIL and international standards such as ISO 17799. COBIT supports the entire lifecycle of IT Governance while ITIL supports IT service management and ISO 17799 is ideal for the security of information [16].

To win the global market competition, each work unit in government must immediately transform to digital form. For example, currently, Jakarta Government is working hard to increase the number of tourists. The digitalization will determine the movement of tourist. With that technology, the number of tourists, the most visited place, to the type of goods commonly purchased by travelers could be traced. It can be learned for implementing the strategies to attract tourists.

However, is digital era beneficial for all party? Digitalization without good governance will only create losses. There many security cases that occurred from theft and misuse of data, transaction falsification, until the cessation of services due to the disruption of information technology which caused in loss for the government and its citizens.

VI. CONCLUSION

The effective implementation of IT Governance is an essential element for the success of e-government. Research is needed to assess the resilience and implementation of IT Governance framework in a large government organization, in different regions and countries. Therefore, the research on IT Governance is needed to investigate the relation of IT Governance and its impact on e-government and how to implement it. The government needs to implement governance while the public as service users should be educated properly, so that they can choose the services and information. Each unit in the government should play its role so they can avoid unqualified services and information.

Digital facilitates the transactions and makes the more professional government. In the digital era, it is not the great but the quick will eat the slow. In the no return point phase, the government should be present to provide tools to help accelerate their citizens to enter the digital era. Today quite many cases of misuse of digital assets, one way to prevent it is to implement good IT Governance in the government.

Therefore, in implementing IT governance in the data digitalization and information era, these are aspects that governance should take a note: support and direction from a Central Government, a good planning and control process, digital asset security, obedience to a regulation, increasing the role of top management as a communication media in government.

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