

Data Governance and Digital Government Development *

Churairat Chullachakkawat

Chiang Mai Rajabhat University

E-mail: Crr_12345@hotmail.com

Abstract

This research has the objective to study the importance of government data governance in relation to the development of digital government by collecting, analyzing and synthesizing data. This research consists of documents and research related to the Digital Government Development Framework, Information Governance and Digital Government Development Plan of Thailand 2020-2022 from various sources, including websites of relevant agencies.

The results from the study suggest that developments of digital government from good data management makes a clearer data classification, also When considering standardization in data management, there is a suitable usage policy by type on the data validation. In addition, government officials will have a better understanding of the use of effective information. The department will then adjust the work style to suit the digital age. This may need to have the position of Chief Data Officer or Chief Data Officer. Of course, the work process will also change. This is what started the government transitioning to digital transformation.

Keywords: Data Governance; Digital Governance; Digital Transformation

*ได้รับบทความ: 27 เมษายน 2563; แก้ไขบทความ: 4 มิถุนายน 2563; ตอรับตีพิมพ์: 5 มิถุนายน 2563

Received: April 27, 2020; Revised: June 4, 2020; Accepted: June 5, 2020



1. Introduction

The 20-year national strategy has laid out the 12th National Economic and Social Development Plan in Strategy Agenda 3; which is to promote the possibility of Digital Government information (Galina, 2016) and the use of information to promote transparency that creates participation and innovations. The operational frameworks that can lead to this goal is Digital Government Platforms (Palvia & Sharma, 2007), by developing digital platforms that support digital services from the starting point to the end of the usage line. The service system will be prepared on the same platform created by the data connection and work between government agencies through a data exchange system that controls the access to information of staff and the determination of the form of government data management with good governance or data governance.

Preparation in this regard will coincide with the government policy that promotes the digital economy and finally Thailand 4.0 policy. In the digital era, data will be at the heart of everything. Due to the fact that more than 80% of Thai people have access to the internet along with the National e-Payment policy, the use of QR codes as a medium of payments without cash is widespread (Fang, 2002). These increasingly emphasize the importance of data that operates smoothly through various digital systems. The important issue at this time is we will manage digital information to be efficient, secure and most importantly, how to manage good governance? Moreover, the eruptions of Big Data and advances technology such as Cloud Computing will make data management completely changed. We must, therefore, have a framework for managing the country's information governance.



2. Research Objective

To study the importance of government data governance affecting digital government development. Also to study the current situation of government information governance management and the framework for managing the country's information governance.

3. Research Methodology

This study will examine the collection, analysis, and synthesis of data which consists of documents and research related to the Digital Government Development Framework, Information Governance, and Digital Government Development Plan of Thailand 2020-2022, from various database sources including websites of relevant agencies.

1. Digital Government and Thailand 4.0 Policy

From the emergence of Information and Communication Technology (ICT) to the Industrial Revolution (1-4), it can be seen that technology has a great influence on the lives of people in society, due to the fast and thorough distribution of information. It also helps to facilitate various aspects as well. Therefore, it cause the general public and even the government itself begin to use information and communication technology and data management to improve operations in all areas of the state, leading to the “Electronics Government” or “E-Government” (Griffin, Trevorrow, & Halpin, 2007) and contributes to the government to change working from the traditional form into the electronic format. The purpose is to make the operation of the state to be convenient, fast and accurate, whether tax filing, car registration, filing a lawsuit, in bidding and procurement, etc.

The tool that the government initiated to support the reform of public administration is electronic government services (e-Government Service) to meet and support the needs of the people including reducing the cost of government



policy in a way. In addition, the government has implemented policies in response to globalization through the legislative process, namely issuing relevant laws. Whether it is technology laws, master plans, economic development plans at different levels, government agencies use information technology in operation. It is hoped that this process will truly drive the organization to become a connected Government (Alcaide & Bolivar, 2018).

2. The Concept of Digital Government

Many agencies have defined the term “Digital Government” or “Digital Governance” as follows.

Digital Government Development Agency Public Organization (2019) defined “Digital Government” as the use of digital technology as a tool for public administration and public services by improving the management and integration of government information and work to be consistent and linked together with security and good governance to efficiency and facilitate the provision of public services for public disclosure of public information and create participation from all sectors.

Electronic Transactions Development Agency (2020); defined “Digital Government” as the use of information and communication technology to support good governance in government administration and services, which consists of Participatory, Rule of law, Transparency, Responsiveness, Consensus, Equity, Effectiveness and Accountability.

An important issue for developing countries to build E-Government is to identify legal issues, as described above, an establishment for a clear framework of legal protection is necessary to protect the governments’ interests. Also to secure and enforce it in the developed countries is much more convenient. However, developing countries may not be as convenient due to the government, social structure and political awareness.



3. Terminology

Electronic Government (e-Government) is described in two ways. The first view states that Electronic government is the use of information and communication technology (ICT) and government technology applications for the provision of information and services from government to people. Another perspective believes that Electronic government means the whole electronic communication between government agencies, the public and the business sector.

4. Data Governance

There are experts from various authorities to define the word “Data Governance” or “Data Governance” as follows.

Askham (n.d.) Defined Data Governance as an activity consisting of determination of control and decision-making in information management in which the information is classified as one of the assets of the department.

Thomas (n.d.) defined; systems that define decision-making power and responsibilities for the data-related processes with a clear and accepted plan. The stated plan must be able to explain that who has the role to do with the data set, as well as when and how to use the principles and methods of using the data.

DAMA International defined rights and control (planning, monitoring, and enforcement) in data management.

Kim & Cho defined; data management from a data related perspective, making the department aware of the standardization, systematic data, and data integration. It is also including the information that is in the system, information related to the operations of various departments, policies, and operational procedures.

From the above definitions, it can be concluded that Data Governance is “defining decision-making rights and responsibilities in promoting the process



of use and data management, including processes that define roles, policies, and standards that support the provision of proceeding data more efficiently, that results in the department achieving the desired goal”.

Legislative preparation is an important part of supporting the digital economy policy and achieving Thailand 4.0 goals. Information is spreading quickly, more and more people in the country have access to the Internet. In addition, the government also promotes other policies such as e-Payment, PromptPay, using QR Codes in place of paperless policies, and using Cloud Computing technology to manage data storage, etc. These phenomena influence the increase in digital data. Therefore, what Thailand needs to consider is how to maximize data management with good governance altogether.

5. Conceptual Framework of Research

Information is one of the important assets and is a mechanism to drive the operations of the department to achieve the set goals, but many departments still lack planning for data management. Whether it is creating, storing, processing, applying, disclosing or destroying caused agencies to unable to integrate information. There are also obstacles to regulations. Therefore, if the government agencies are able to manage the data, it will allow the department to maximize the use of the available data. In order to do so, it requires a clear and systematic framework. The researcher has studied the data governance concept and found that the government data governance framework at the department level consists of 4 main parts, namely 1) definitions and rules related to data 2) Process of Information Governance 3) Government Information Governance Structure (Digital Government Development Agency (Digital Government Development Agency Public Organization, 2018) as figure 1

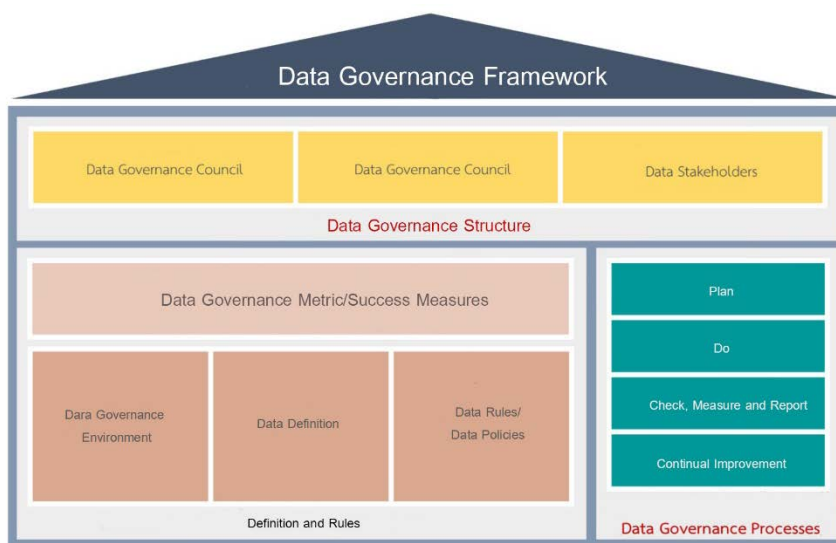


Figure 1. The Regulatory Framework for Information at the Department Level

Source: <https://waa.inter.nstda.or.th/stks/pub/2019/20191105-data-governance-framework-book.pdf>

5.1 Data Governance Environment

a. Laws, regulations, policy guidelines and guidelines related, including the disclosure of information, data exchange, personal data protection, and confidentiality.

b. Data Definition; in order to create a mutual understanding among relevant parties, In which the data classification will make it possible to see the overview data. Also, it will create a better understanding of Metadata.

c. Data Rules often refer to data-related policies. The data policy describes the best practices and prohibitions. While the data standard describes methods or procedures. Therefore, the standardization should be consistent with the data policy set.



5.2 Data Governance Structure; The determination of the structure of government data governance to represents hierarchy between groups of people related to government data governance. This represents the right to order according to the hierarchy. In this regard, the number of personnel and the depth of the hierarchy shall be considered as appropriate for each government agency. Government agencies can set up different forms of information governance consisting of 1) The format of the virtual team, selected from various departments, 2) The format with a clear responsible segment, which may be re-established or assigned to a function that is similar to a structure, and 3) A mixed format which requires a distinct separation of duties between the primary responsibility segment and the virtual team.

5.3 Data Governance processes are procedures for supervising the processing of data in accordance with the rules, regulations or policies related to data, government information, governance process, from planning to continuous improvements as follows;



Figure 2 Data Governance Process

Source: <https://waa.inter.nstda.or.th/stks/pub/2019/20191105-data-governance-framework-book.pdf>



a) Plan; by specifying vision and issues, in order to supervise and manage information and also to determine the scope of the operation, duration, relevant personnel, and cost, then officially announce the plan, rules, regulations and related policies.

b) Do; is the work of all relevant personnel. It will proceed according to the plan in accordance with the rules, regulations, policies, standards and various practices, including a report on the progress of the performance and the problems encountered during the operation.

c) Check, Measure, and Report; this step will check the consistency of rules, policies, standards, and practices, as well as data quality Evaluation, then report the results of data quality, consistency, security and risks associated with information to the Supervisory Board and relevant parties.

d) Continuous Improvement; It must be carried out continuously throughout the life cycle of the data according to the changing environment or laws, reporting feedbacks from executives and stakeholders including the audit results.

5.4 Guidelines for the Preparation of Government Data Governance

The components of government information governance are as follows;

1) Defining the rights, duties, and responsibilities of those responsible for information management of the department.

2) Planning of operations, Implementation of the operation, Auditing and performance reporting, and continuous improvement of the operational plan that will creates efficient management system and data management process and be able to connect, exchange and integrate information both inside and outside the department and protect data to be effective as well.



3) Control measures and data quality development; to provide accurate, complete, current, secure information and not violate personal privacy. It includes the ability to link, exchange, integrate and utilize effectively.

4) Evaluation of data management; It must at least consist of assessing the readiness of government data governance at the department level, data quality assessment, and assessing data security.

5) Data classification; In order to set information policies or rules that involve access and use of information within the agency. The agent must comply with policies or rules according to relevant laws which leads to systematic government information management.

6) Digital Data set commentary; in order to help stakeholders and public understand Data Governance, to be accurate, complete and up to date.

5.5 Benefits of Managing Data with Good Governance

Data Governance will provide guidelines for the government, including government agencies, state enterprises, public organizations, and new government agencies to suit the unique characteristics of each department. Hence, those departments can access the process and apply Data Governance efficiently. Furthermore, to point out the relationship between the data management process, the document tools used to manage the data, and assessment from related parties or stakeholders. On the other hand, government agencies will have a clear classification, standardization, suitable policy, and data validation. In addition, government officials will have a better understanding of the use of effective information. The agency will then adjust the work style to complement the digital era which is what makes the government transition to digital or digital transformation. (Batalli, 2016)



4. Result

This research found that the development of digital government from good Data Governance creates a distinct data classification. It also create standardization in data management, suitable usage policy according to type of data collected, and data validation. In addition, government officials will have a better understanding of the use of effective information. The agency will then adjust the work style to suit the digital era which may need to establish a position such as Chief Information Officer or Chief Data Officer at the department. Of course, the work process will also change. This is what started the government transitioning to digital transformation.

Currently, most government agencies still did not implement the Data Governance within their organizations. The study shows that each organization still encounter problems and obstacles in operations related to information which is a policy issue and practice (Khosrow-Pour, 2009), both in terms of data redundancy, data security, data quality, information disclosures, Moreover, it has not been used for essential benefits. These issues and obstacles may be the result of incomprehensive and unclear information management of the department. Therefore, it is necessary for the government agencies to have measures and guidelines for data governance and efficient and effective data management.

However, the 1/2019 meeting of the Digital Government Development Agency has passed a resolution to announce the Digital Government Development Commission, regarding Government Data Governance to manage the information in accordance with the government data governance as attached to the announcement. In addition, there is an order for each department to prepare government data governance at the department level in accordance with government data governance as well.



References

- Alcaide & Bolivar. (2018). *International E-Government Development: Policy, Implementation and Best Practice*. Switzerland: Palgrave Macmillan. DOI: 10.1007/978-3-319-63284-1_1
- Askham, N. (n.d.). *Squaring the Circle: Using a Data Governance Framework to Support Data Quality*, Page 3.
- Batalli, M. (2016). Factors Affecting the Transformation of Public Administration. *Acta Universitatis Danubius Juridica*, 12(3), 31-43.
- DAMA International. (2017). *DAMA-DMBOK: Data Management Body of Knowledge*. (2nd ed.). Bradley Beach, New Jersey: Technics Publications.
- Digital Government Development Agency (Public Organization). (2018, June 15). *Data Governance Framework*. Retrieved 21 January 2020, from <https://waa.inter.nstda.or.th/stks/pub/2019/20191105-data-governance-framework-book.pdf>.
- Digital Government Development Agency (Public Organization). (2019, May 28). *Digital Government Administration and Services Act B.E. 2019*. Retrieved 21 January 2020, from <https://www.dga.or.th/th/profile/2136>
- Digital Government Development Agency (Public Organization). (2019, November 28). (Draft) *Digital Government Development Plan of Thailand 2020-2022*. Retrieved 21 January 2020, from <https://www.dga.or.th/th/profile/2158>
- Electronic Transactions Development Agency. (2020, April 24). *e-Governance*. Retrieved 21 January 2020, from <https://www.eta.or.th/terminology-detail/1018.html>
- Fang, Z. (2002). E-Government in Digital Era: Concept, Practice, and Development. *International Journal of the Computer, The Internet and Management*, 10(2), 1-22.



- Galina, S. (2016). Informatization and E-Government. *The Relationship in the World. Juridical Science*, 2(56), 16-20. Retrieved 21 January 2020, from http://nbuv.gov.ua/UJRN/jnn_2016_2_4
- Griffin, D., Trevorrow, P., & Halpin, E. (2007). *Developments in e-Government: A Critical Analysis, Volume 13 Innovation and the Public Sector*. Amsterdam, Netherlands: IOS Press. Retrieved 21 January 2020, from http://www.untag-smid.ac.id/files/Perpustakaan_Digital_1/E-GOVERNMENT%20Developments%20in%20e-Government%20A%20Critical%20Analysis.pdf
- Khosrow-Pour, M. (2009). *E-Government Diffusion, Policy, and Impact: Advanced Issues and Practices*. USA: Information Resources Management Association.
- Kim, H. Y., & Cho, J.-S. (2017). Data Governance Framework for Big Data Implementation with a Case of Korea. In 2017 IEEE International Congress on Big Data (Big Data Congress), Honolulu, HI, USA, 25-30 June 2017 (pp. 384-391). USA: IEEE. DOI: 10.1109/Big Data Congress.2017.56
- Palvia, S. C. J., & Sharma, S. S. (2007). E-Government and E-Governance: Definitions/Domain Framework and Status around the World. In *International Conference on E-Governance*. Retrieved 21 January 2020, from http://www.iceg.net/2007/books/1/1_369.pdf