ธรรมาภิบาลในยุคดิจิทัล: บทบาทของหน่วยงานกลาง ในการส่งเสริมการเป็นรัฐบาลแบบเปิดในประเทศไทย Good Governance in Digital Era: The Role of Central Agency in Promoting Open Government in Thailand

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บทคัดย่อ

การวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาบทบาทของสำนักงานพัฒนารัฐบาลคิจิทัล (สพร.) ซึ่งเป็นหน่วยงานกลางด้านการพัฒนารัฐบาลคิจิทัลของประเทศไทย ในการประยุกต์ใช้เทคโนโลยี ดิจิทัลส่งเสริมการเป็นรัฐบาลแบบเปิด และเพื่อสร้างองค์ความรู้ใหม่ในการศึกษารัฐบาลแบบเปิด การวิจัยเรื่องนี้ดำเนินการวิจัยตามระเบียบวิธีวิจัยเชิงคุณภาพ โดยใช้วิธีการสัมภาษณ์เป็นวิธีหลักใน การเก็บรวบรวมข้อมูลปฐมภูมิ ประกอบด้วยการสัมภาษณ์แบบกึ่งโครงสร้าง และการสัมภาษณ์เชิง ลึกจากกลุ่มตัวอย่างที่มีประสบการณ์และมีความเชี่ยวชาญด้านเทคโนโลยีดิจิทัล

ผลการวิจัยพบว่า สพร. มีบทบาทในการประยุกต์ใช้เทคโนโลยีดิจิทัลส่งเสริมการเป็น รัฐบาลแบบเปิด อาทิ การเปิดเผยข้อมูลผ่านเว็บพอร์ทัล แอปพลิเคชันบนมือถือ ตู้บริการ เอนกประสงค์ภาครัฐ และเครือข่ายสังคมออนไลน์ โดยเป็นไปตามหลักสามองค์ประกอบสำคัญ ของรัฐบาลแบบเปิด ได้แก่ ด้านการสนับสนุนข้อมูลสาธารณะ ด้านการเข้าถึงข้อมูลแบบเสรี และ ด้านความผูกพันแบบเปิด อย่างไรก็ตาม สพร. กำลังเผชิญปัญหาและข้อจำกัดในการส่งเสริมรัฐบาล แบบเปิดหลายด้าน อาทิ ความไม่ชัดเจนของนโยบายและแนวทางปฏิบัติ การขาดระบบแลกเปลี่ยน ข้อมูล ปัญหาข้อมูลกุณภาพต่ำ การหวงข้อมูล และความเหลื่อมล้ำทางดิจิทัล จึงจำเป็นที่จะต้องสร้าง

คณะรัฐศาสตร์และนิติศาสตร์ มหาวิทยาลัยบูรพา

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ความร่วมมือกับทุกภาคส่วนในการวางแผนแก้ไขปัญหา โดยมีเป้าหมายไปสู่การเป็นรัฐบาลแบบ เปิดที่ทุกภาคส่วนมีส่วนร่วมในการยกระดับความโปร่งใสในการบริหารงานภาครัฐในยุคดิจิทัล

คำสำคัญ: ธรรมาภิบาล, การบริหารงานภาครัฐยุคดิจิทัล, หน่วยงานกลาง, การเป็นรัฐบาลแบบเปิด

Abstract

The purpose of this research were to (1) understand the role of the Digital Government Development Agency (DGA), the central agency, in applying digital technology to promote and support Open Government in Thailand; (2) to provide new body of academic knowledge in Open Government. The research applied qualitative method mainly using interview approaches; semistructured and in-depth interviews, to gather primary information from target respondents who are experienced and well-versed in digital technology.

The findings were that the DGA has played important roles in promoting Open Government in Thailand. Digital technologies such as web portals, mobile applications, smart kiosks, and social network had been applied to enhance transparency, encourage e-participation, and build e-collaboration between the DGA and other agencies. The three essential components of Open Government; Open Data, Open Access, and Open Engagement were implemented. The agency, however, still confronts with various problems and limitations such as a lack of policy and implementation clarity, a lack of data exchange network system, low values of collected information, refusal of inter-cooperation in data exchange, and digital divide. It is necessary to initiate partnership with every sector to deal with the challenges, aiming towards open government that all agencies are engaging in enhancing transparency for public administration in digital era.

Keywords: Good governance, Public administration in digital era, Central agency, Open government

Introduction

The world has been transformed to the age of digital that information and communication technologies (ICTs) rapidly grow. The advancement of ICT facilitates public sectors, private organizations, and ICT users to communicate and exchange their information to each other easily without limitation of place and time. It is factual that the growth of ICTs could affect politics and government as well as public administration development (Phakthanakul, & Chiaochanprapan, 2016, [B.E.2559], p. 100-101). Modern technology, for example, could facilitate communication between public organizations and other agencies more convenient by reducing time and cost. In addition, the advancement of ICT in digital era also affect another main issue of politics and government. People nowadays call the government, whether democratically-elected or not, for exposing public information via technology channels. The government is required to allow citizens to access the data, monitor government operations, and participate in policy-making process with less limitation. Consequently, Open Government is an important issue nowadays for public administration in digital era that the government of various countries could no longer avoid.

Open Government is a part of concepts of digital governance. Digital governance refers to a regulatory framework of ICT management and regulation for the public administrator and manager to produce and deliver public services by using digital technologies. (Chen, 2017). Open government will be beneficial to other public sectors and government agencies in improving their performance, due to the fact that open government supports using information and communication technologies (ICTs) to encourage public participation in policy-making and implementation process. Open Government, additionally, also helps citizens access to public information, monitor and report public service feedback, and subsequently increase public trust.

The Digital Government Development Agency (DGA), formerly known as the Electronic Government Agency (EGA), is a public organization founded in May 2018. This organization is a central agency for digital government development function, directly performing under supervision of the Prime Minister of Thailand. By the foundation law, the DGA has main functions to promote and support public organizations as well as other agencies towards digital government (Digital Government Development [DGA], 2019 [B.E.2562]).

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This research focusses on importance of Open Government and Thailand's public administration in digital era according to digital government development strategies. The role of DGA in promoting digital government in Thailand is mainly concentrated on the study in terms of applying digital technologies to promote and support Open Government. This research applies concept of three essential components of Open Government (Scassa, 2014); Open Data, Open Access, and Open Engagement. Eventually, the study aims to reflects significance of Open Government as mechanism for improving public performance, diminishing corruption in public administration, and raising public trust to the government.

Objectives

1. To understand the role of the Digital Government Development Agency (DGA) as the central agency in promoting digital government in Thailand to apply and utilize digital technology to support and promote Open Government in the country.

2. To provide the new body of academic knowledge in Open Government.

Scope of the Research

Primary data in this study was gathered within areas of the Digital Government Development Agency (DGA) located on 17th floor, Bangkok Thai Tower building, Rangnam Road, Phayathai, Ratchathewi, Bangkok. Data collecting process was collected during October, 2018 – March, 2019. This research aims to study the role of DGA in applying digital technology to support and promote Open Government in the country. Interview questions were formed based on three essential components of Open Government concept (Scassa, 2014). To complete the study, twenty-six target respondents were categorized into two groups; group A and group B, as followed:

Group A is designed for semi-structured interview method, composing of 21 target respondents. They were selected from populations who work in DGA by using multi-stage sampling technique. Group A is separated into four types, which are (1) the Digital Government Development Agency committee, (2) the executive board, (3) the head of cluster, and (4) operational level staffs. Those are required to have 1-4 years' experience in digital technology or in related areas.

Group B is designed for in-depth interview technique only with specific key informants, composing of 5 target respondents. In the same way as the Group A, those were selected from the four types of populations who perform in the DGA by using purposive sampling technique. Those are required to have at least 5 years' experience in digital technology or in related areas. In addition, target respondents in Group B could be directly selected from the same persons in the group A, in case they are able to provide further interesting issues, perspectives, or other dimensions in Open Government issues.

Concepts, Theories, and Related Articles

1) Concepts of Open Government

This research applied concepts of Open Government, which is an important issue that international organizations (IOs) and developing countries recognize and continually attempt to make it successful in order to increase transparency in public administration, promote public participation with online channels, and build collaboration among government agencies. Those aim to increase public trust in the government and support new innovations in the country (World Justice Project, 2015).

The Organization for Economic Co-operation and Development (OECD) suggested that Open Government has relations with transparency in public sector performance, ability to access public service and information, and responsiveness of needs and requirements (OECD, 2005). Five years later, however, OECD revised its previous definition and proposed the new one stated that open government refers to the government who encourage citizens and society to create 'public values' which are transparency, civil participation, and stakeholders' collaboration (OECD, 2010). Furthermore, the work of The White House (2009) and Orszag (2009) presented that open government mean to a system of transparency, participation, and collaboration. Orszag suggested that collaboration is the pillar of open government, where digital technology should took parts in promoting transparency and participation because people could access public information and monitor government operations in real-time. This triad could help the government increase public trust and reduce corruption in the country. Additionally, the World Justice Project (2015) advised that open government refers to the government which encourage people to monitor its operations and promote participation in policy-making process by using



information and communication technologies (ICTs). To sum up, Open Government means government that has a high level of transparency and prudent mechanism for monitoring public sector performance. Also, open government supports people participation and stakeholders' collaboration in policy-making process by promoting the use of digital technology. The main objective of open government is for public interests.

2) Essential Components of Open Government

In this research, components concept of Open Government is used to gather primary information and data analysis process in area of DGA. There are several studies, in fact, mentioning components of open government. To begin, Harrison and others (Harrison et al., 2012) proposed that the ultimate objectives of overall public sectors are public values, including transparency, participation, and collaboration. Similarly, the work of Yu and Robinson (2012) showed that open government contains three main elements, which are (1) transparency that helps citizens monitor and keep eyes on how the government operate, (2) accountability that requires effective rules regulation, and (3) participation that promotes public engagement in policy-making process and implementation proceeded by the government.

More interestingly, the Government of Canada (2014) had implemented the concept of open government in practice. The government follows both national and international open government methods by promoting transparency and accountability policies, increasing public trust, and motivating economic innovations and opportunities via open information, open ICTs, and open dialogue. According to those previous studies, the academic work of Scassa (2014) presents that open government is essentially composed of three factors, which are (1) Open Data, (2) Open Access, and (3) Open Engagement. Each of them could be described as followed.

1. Open Data: open data is the core factors of open government. Open data relates to concept of transparency which helps increase public participation in policy-making process and implementation as well as monitoring what the government do. Open data mechanisms also help reduce corruption problems and provide information to people in order to increase public trust and promote economic development for the country (Scassa, 2014).

2. Open Access: Scassa presents that open access is relevant to 'Rights to Information,' which are a part of the fundamental right of citizens. Open access will conduce to transparent and accountable government due to the reason that people or other stakeholders could

access to public information provided by the government in order to monitor and observe overall governmental operations. Nevertheless, Scassa finds this reasoning may incorrect, especially in developing countries which having a high level of digital gap or digital divide. Hence, promoting open access and reducing digital gap in the country could guarantee that people and other stakeholders from all sectors are able to access public information as required.

3. Open Engagement: open engagement is an essential dimension of digital governance (Scassa, 2014). Internationally, citizens will have rights to participate in political activities and public administration provided by the government. The government will also promote and encourage all sectors to engage in policy-making process and implementation as well as public service management. According to the fact that problems nowadays are interconnected and highly complicated, it is difficult for those governments to solve these problems solely. Therefore, the government should engage in collaboration with both private sectors and civil society sectors in order to solve the problem.

3) Related Article about the Role of Central Agencies and E-Government 4.0 in Thailand

The latest study of Sagarik and others (Sagarik, Chansukree, Cho, & Berman, 2018, p. 352) concludes that central agencies are necessary for digital government policy-making and strategic implementation. The important roles of central agencies in digital government are to be a digital leadership institution for other public organizations to create visions and strategies, to provide leadership in digital coordination between the central agency and other organizations, and to increase and promote digital integration in public performance, as well as de-siloization.

According to the study, there are two primary digital-leading agencies in Thailand which are the Ministry of Digital Economy and Society and the Electronic Government Agency (Sagarik et al., 2018, p. 347). The ministry has fundamental roles to create digital development plans and strategies, promote digital organizations, develop technological innovations, and perform all functions relating with digital economy and society through meteorology and statistics. The Electronic Government Agency called 'EGA' is an agency operating under supervision of the Ministry of Digital Economy and Society. The EGA has responsibilities for developing ICT infrastructures and providing ICT services for other government agencies to improve performance and efficiency. The EGA also assists those public agencies with providing



guidance, knowledge, and practices, increasing a number of accesses to digital services for the Thai people, and enhancing cyber-security of all online services. The agencies also responsible for human resource development in digital literacy (the EGA Foundation Royal Decree, 2011[B.E.2554]).

Recently, the old Electronic Government Agency, under the Ministry of Digital Economy and Society, was replaced with the newly established Digital Government Development Agency (public organization), under the Office of the Prime Minister on May 2018. This is due to the fact that the Thai government requires a central agency that specializes in utilizing digital technology to improve public performance and provide digital services efficiently. Digital technology will helps satisfy and facilitate the Thai people when receiving public services. In accordance with the law, the agency has major roles to provide digital technology infrastructure services, implement standards, principles, and approaches in terms of digital technology throughout the transaction process in order to connect information and work systems with other government agencies. The agency is also responsible for promoting and supporting other public sectors to integrate and exchange information, enhancing those to provide digital services to concerned parties, and reinforcing 'a one stop government's digital service' where people could access conveniently, promptly and securely (the DGA Foundation Royal Decree, 2018 [B.E.2561]).

Research Methodology

This research applied qualitative method mainly using interview approaches, which are semi-structured and in-depth interviews, to gather primary information from target respondents who work in the Digital Government Development Agency (DGA), whom are experienced and well-versed in digital technology. Documentary research method is also used in this study to obtain secondary data to analyze and process information. All received data were collected based on conceptual framework, research questions, and objectives of the study in order to understand and explain the role of DGA to promote and support Open Government in Thailand by using digital technology. Ideas, visions, perceptions, and years' experience of target respondents, from executive to operate levels, are essential information resources for this study to build new body of knowledge in Open Government. For data collecting process, after the fact that appointments with

target respondents were confirmed, the researcher then applied face to face interview technique with those based on research questions. Both open-ended and close-ended questions were included. Target respondents were allowed to provide further information or related comments. Interview time is approximately 50-60 minutes per each session. During interview process, the researcher obtained permission to take notes and take voice record to gather information from interviewees as much as possible in order to minimalize error.

After interview process, primary data was re-checked with source triangulation technique (Naiyapat, 2006, [B.E.2549]) by comparing received information from taking notes, conversation memo, and voice recorder. This is to confirm that received information is strongly valid. Some respondents, then, were randomly selected to re-check their conversation memos again to make certain of correctness. In order to complete this study, the research advisors and experts also assisted the researcher to make data interpretation, research findings, and study recommendation.

Research Findings

Part I: The Role of DGA to Promote and Support Open Government by Using Digital Technology

1.1 Open Data

(a) Initiating Open Government Data via Digital or Electronic Platforms

The DGA has initiated a web portal for government data center named *Data.go.th.* in order to allow people, government agencies, and other sectors to search and access all public information for free of charge. This is aiming to promote good governance by enhancing transparency, building e-collaboration between the DGA and other agencies, and encouraging e-participation with citizens. Moreover, the DGA also provided government data and publicized itself via social network; Facebook Fan page, YouTube Channel, Twitter, and Instagram. Internet users are able to search those by using a keyword named 'DGA Thailand' in each online platforms to view and explore all information. Furthermore, G-news and CITIZENinfo, central mobile applications on smartphone, are developed for people to online-communicate, search, access, and receive information from the government in real-time, and for other agencies to



advertise and directly provide information to the public. The DGA is now playing roles as a central agency in co-operation with others in terms of government data.

(b) Ability to Use Information without Limitations

People and other information users are allowed to take government data from every platform according to their requirements. Before accessing to the data, those users are required to accept the terms and conditions of the use in Open Government License of Thailand. They are subsequently able to use the data without limitations of place and time, and no authority requirement. All public data are for free of charge. In addition, the users have rights to (1) copy, distribute, and transmit the data only for legitimate objective of use, (2) adjust or re-write the data by means of any method or approach that core content must not be changed, and (3) utilize the data, including information combination or taking some part of the data in any product or mobile application, for commercial or public interest. In every uses of information, all users are required to take references to the developers.

(c) Information Management

Storage and data categorization system powered by the DGA are applied in website *Data.go.th.* The dataset and items announced in the website were classified based on patterns and standards in order to help users search and found the data easily and quickly. Before announcement on the website, all data were set level of disclosure from 1 to 5 stars. The 5 stars means high openness that users are able to use the data instantly. This may help those users consider the use of information conveniently. Considering to public needs and information users, moreover, high-value datasets were prioritized on the first row to be posted in online platforms; web portals, mobile applications, and social network.

More interestingly, the inter-cooperation between the DGA and other agencies in information management was implemented to revise and keep the data always up to date. It is the fact that collaboration among agencies could enhance values of the data because combinedmatched information would be simplified to use for the users. In case the DGA find out that the data received from others agencies are the same series, both parties will consult with each other to create well-combined datasets, and then post to the public subsequently. Furthermore, the DGA has its own information update system. All data will be posted to the public via online platforms in terms of real-time feeds, especially social network, mainly considering to values of the data

and people's utilities. Data timestamps or update period will be appeared every time when the data are posted in platforms. This could help users check that when and what time the data were released.

1.2 Open Access

(a) Data Access Facilitation

The DGA has formed *Government Smart Kiosk*, a smart electronic machine for information services, in order to allow people access to all public information in one-stop service. More than 70 machine services were inclusively located on both areas of government agencies and public places; department stores and hospitals. To use the self-service Kiosk, people are required to insert their citizen cards into the machine to identify themselves. On the service screen, there are four main options of government services to choose; (1) Examine – to check personal information, service rights, and privileges, (2) Inform – to submit any information to government agencies, and confirm rights to public services, (3) Apply – to register, revise, and renew to public services, and (4) Search – to look up dataset or other information. For instance, people are able to examine their personal information and remaining privileges, such as health insurance, social security, doctor meeting, the government pension fund, etc.

In addition, the web portal 'Data.go.th' is designed by the DGA for providing a set of public information which could be used freely without limitation or regulation. The received data could be utilized individually or shared to target users. However, for proper use of the information, it is required to take reference the source of information as well as submit to the terms and conditions specified by the developers. Another important web portal is 'Govchanel.go.th.' This portal is designed to provide digital government-related information based on the one-stop service concept launched to increase people's quality of lives as they can access to public services more efficiently and conveniently. The portal also can ensure the reduction of social gaps among people from different classes and areas. More interestingly, in the digital era that every people nowadays can approach to digital technology via smartphone and internet network dramatically and increasingly, the central mobile application named 'G-News' is developed by the DGA aiming to promote communication among all government agencies, and provide public information; royal ceremony news, breaking news, hot news, and live broadcast, etc., to people who have smartphone with connected internet network directly and instantly.



(b) Digital Divide Management

At present, it is beneficial that people can easily access to digital technology by using only with their fingers. Smartphone, tablet PC, and other digital gadgets are now extensively used for inter-communication, following social news, or searching information. However, not all people are able to use those digital technology to access public information. It is true that the majority of Thai people still have wide differences in digital ability. Consequently, the gap between people who have the digital technology and skills and those who do not is called 'digital divide' (Yu-Che Chen, 2017). To solve and reduce the problem, the Digital Government Development Agency initiated Thailand Digital Government Academy (TDGA), a personnel development institute for digital public administration, aiming to enhance digital capabilities for government officers and other public employees in Thailand, readily supporting for digital government transformation. The TDGA has important roles to; (1) promote, support, and provide academic services in digital capability development, (2) set up and manipulate standards of knowledge management in digital technology, (3) build network-partnership between public organizations and other agencies to raise personnel capabilities for digital government transformation, and (4) provide training courses and digital seminars for government officers and other public employees from practitioner to executive levels.

More interestingly, not only government officers but people in general are also concentrated on digital government development. The DGA provides online-training course services called 'DGA e-learning' for people who interested in digital technology issues: open data, ICT security in organizations, data visualization and big data analytic, government cloud service (G-Cloud), project management, and digital literacy. The e-learning could be accessed via internet network for free of charge, so users are able to watch and learn those digital capabilities at any time for anywhere. The benefit is that users could manage their time freely and conveniently to study. Due to the fact that this multi-media learning composes of infographic posters, photos, sounds, and alphabets, users could understand and memorize all lessons more efficiently. In addition, social network; Facebook Fan Page, YouTube Channel, Twitter, and Instagram, is another learning channel for people who interested in digital issues, and owned digital gadgets with connected internet. All knowledge in digital government will be posted on

these channels openly and regularly, and those users can click on data link appeared under each post to obtain more information.

1.3 Open Engagement

(a) Participation of All Sectors to Provide Public Services

Open Data Hackathon is a workshop activity aiming to exchange information about open government data for initiating and developing 'blue print' of website and mobile application services. The event supports and promotes open data policy of the government in order to (1) incorporate open government data, and (2) encourage all sectors get the most out of information. The majority of workshop participants were people who interested in open government data including; program developers, graphic designers, marketing personnel, and social activists. This event was held by collaborative project between the DGA and other agencies; Citizen-net Network, Changefusion Institute, Opendream Institute, Ma:D Co-working Space, and Good Factory.

Additionally, due to the fact that public participation is important for selecting and providing information based on public requirement, the DGA applied Data.go.th, a central web portal for providing open government data, as a public channel to receive user comments about Open Data privacy and data service feedback via online forum. Therefore, the DGA uses the web portal to ask for public recommendation in providing information services from all users to constantly improve database and keep the data up to date at all times. Furthermore, the DGA initiated International Open Data Day activity annually held under project of Thailand Data Innovation Award (DIA by DGA). The event is an academic seminar aiming to exchange ideas, opinions, and perspectives among participants who came from various agencies. This activity also purposes to build 'Data Community Engagement' to encourage all sectors engage in open government data innovations and create social values to the public.

(b) Two-Way Communication for Digital Service Improvement

The DGA contact center service is a two-way communication system that people, government agencies, business organizations, and other sectors as well as digital users could directly give the DGA their recommendation or feedback about digital services. There are four main channels to contact the DGA; (1) host website: www.dga.or.th, (2) DGA hotline and call center service: (+66)-2612-6060, (3) DGA email: contact@dga.or.th, and (4) a mobile



application: G-news. After submitting to DGA staffs, all recommendation and feedback will be analyzed by related operational team instantly, and then they will reply to users within 1-2 days in case of general issues, and 4-5 days if that issue require to co-operate with other agencies. Furthermore, social network; Facebook Fan page, Twitter, and Instagram is another two-way communication channel that the DGA currently applies to communicate with the public in order to obtain more opinions, ideas, or suggestion to improve services. Those would help the agency provides digital services that satisfy the needs of all users.

(c) Crowdsourcing Application

Basically, crowdsourcing is co-creative ability of mass people in order to do something or solve some problem especially in online marketing via digital campaign and online advertisement. Crowdsourcing is most likely popularized in online business, and now is being global technology trend that online service providers, web designers, and mobile application developers interested in it (Grewal-Carr, Howard, Bates, & Lewis, 2012, p. 2-3). This is because the crowdsourcing allows digital users and online community participate in achieving some interesting objectives, or solving some problems similarly with online brainstorming.

For applying concept of crowdsourcing, DGA is presently in progress of developing mobile application named 'G-news.' The agency attempts to push G-news forward to become a central mobile application that users from all sectors could receive public information from providers directly, and participate in policy-making process, providing public services, or law enactment via smartphone or other digital gadgets. The feature of this mobile application related to crowdsourcing is 'Recommendation and Report' function. According to the function, users are required to fill their contact information, name and email, then they are able to choose one topic from three options to submit including; (1) problems report, (2) complain, and (3) other suggestions. After sending to DGA staffs, all received data will be appeared in G-news database instantly. Those feedbacks will be sent back to users within a couple of days via G-news application. Lastly, this application will be most beneficial for government agencies which require new ideas for creation of public services.



Part II: Problems and Limitation in Promoting Open Government in Thailand.2.1 Policy and Implementation

At present, it is the fact that Thailand still lack in clarity of law and policy in promoting Open Government (Lorsuwannarat, 2016, [B.E.2559]). Therefore, various agencies have differences in policy implementation. For example, some agencies agree to disclose information to the public, and are also willing to collaborate with the DGA to exchange information while some organizations do not. As a result, it is difficult to initiate intercooperation of information management among public agencies.

More interestingly, DGA has designed Data Governance Framework in order to; (1) regulate rights, duties, and responsibilities of all shareholders for information management aiming to enhance the use of government data correctly, inclusively, timely, and safety, (2) strengthen data security and privacy, and (3) integrate public information and effectively promote interorganization data exchange (DGA, 2018 [B.E.2561n]). Moreover, the DGA is presently in progress of enactment in the Act of Digital Public Administration and Services Delivery. Purposes of this law are to be the main regulation for digital technology implementation in providing public services, and initiate database integration among all agencies towards government data system for public interests (DGA, 2018 [B.E.25611]). However, due to the fact that Data Governance Framework is a newly established concept which had not been extensively realized among government agencies, the implementation of this framework was not successful enough, and some agencies also decided to reject following the concept. Nevertheless, if the act has been successfully enforced, Data Governance Framework would be more formalized and more popularized among all agencies as well.

2.2 Digital Divide

Unfortunately, public sectors in Thailand still lack of government officers who are experienced and well-versed in digital technology. This is because the fact that the gap in ability and opportunity to access information directly cause to distance between people who have information and those do not. The gap is also a result from differences of Thai population in various dimensions; habitat (urban or rural areas), level of education, span of age, earnings, etc. According to the problem, DGA has provided training courses and digital seminars, held by Thailand Digital Government Academy (TDGA), in order to enhance digital capabilities and



performances of government officers and other public employees from practitioner to executive levels, readily supporting for digital government transformation. More interestingly, not only government officers but people in general were also developed in digital literacy. The DGA provides the DGA e-learning, online-training course services, for people who interested in digital technology issues. Users are able to access digital learning via internet network for free of charge. They could watch and learn those digital lessons at anytime for anywhere. This multi-media learning composes of infographic posters, photos, sounds, and alphabets. Therefore, students could understand and memorize all lessons more efficiently.

2.3 Inter-Cooperation in Data Exchange

For this problem, the most happening case is that some agencies had denied to exchange their information when DGA required for data cooperation. Some do not allow DGA access to information due to the fact that they are afraid of information leak and pirating. Some agencies, on the other hand, permit the DGA in using information but process of data requirement is a bit complicated and spends a long time. The data in some cases are exported to DGA in terms of unreadable file formats that could not be used instantly, requiring data readable machines to interpret them. Moreover, the concept of Data Governance Framework had not been realized extensively among other agencies. According to experience of DGA staffs, they found that the main factor of failure in Data Governance Framework implementation are policies and practices of organizational leaders. Some executives agree to follow the concept while some do not. Organizational leaders in business sectors tend to accept Data Governance Framework further than those in public agencies.

2.4 Data Linkage

Problems in values of information; correctness, completeness, real time processing, concordance, validity of use, and readiness to use, had been occurred frequently, addressed by DGA staffs. For example, they often found that some information obtained from other agencies had not been updated for a long time, some was not matched with requirement, and some files needed to be converted into readable-machine format before using. Those mainly result from lack of data governance regulations, laws, and appropriate practices. Therefore, cooperation and data exchange between DGA and other agencies are not proceeded on the same pace, and then quality of dataset received from other agencies is at a low level.

Furthermore, lack of data exchange network system is another limitation of DGA to manage information with other agencies. Consequently, the DGA and other parties are not able to bridge the data between each other, and also could not access and implement the data in real-time. According to the problems, however, the DGA is currently in progress of developing 'Government Data Exchange Center' or GDX in order to facilitate exchange of data and digital document in registration among government agencies. Information exchange in terms of digital platforms will beneficial not only for public sector to connect and transfer information between each other conveniently, but also for people when receiving public services by reducing the use of copied document.

Conclusion

Open Government refers to a concept of democratic government which people, public agencies, and other sectors are allowed to access public information at any time for anywhere. In digital era, central agencies in promoting Open Government have important function to provide digital infrastructure in order to facilitate people and all sectors engage in policy-making process as well as furnishing public services. Open Government is beneficial for all parties in building understanding and decision-making for their public interests provided by the government, and also help increase level of public trust. In Thailand, the Digital Government Development Agency (DGA) is significant in the formation and implementation of Open Government strategies in the country. By the foundation law, the DGA has main functions, which relating to concepts of Open Government, to implement standards, models, principles, and approaches to bridge information and operational systems among government agencies, and to support the integration and data exchange, the openness of government information, and the formation of an exchange center of government's digital information records in order to facilitate services to people and transactions of government agencies. According to research findings, this study presents the DGA had played important roles to apply digital technology in promoting and supporting Open Government in practice. The agency utilizes digital technologies; web portals (Data.go.th and Govchanel.go.th), mobile applications (G-news and CITIZENinfo), Information machine service (smart kiosks), and social network (Facebook Fan page, YouTube Channel, Twitter, and Instagram), to enhance transparency, encourage e-participation, and build e-collaboration between the agency and other



sectors. The three essential components of Open Government; Open Data, Open Access, and Open Engagement are appropriately implemented.

Yet, the DGA nowadays still faces various problems and limitations such as a lack of policy and implementation clarity, a lack of data exchange network system, low values of received information, refusal of inter-cooperation in data exchange, and digital divide. It seems that those could not be solved solely by the DGA. Therefore, it is necessary to initiate partnership with every sector to deal with the challenges, aiming towards open government that all agencies are engaging in enhancing transparency for public administration in digital era. Eventually, this research is designed to be beneficial for academic circles in providing further knowledge of Open Government, and all public organizations as well as other sectors in adopting 'the DGA's practices' as a role model to manage public information for promoting Open Government in the country.

Recommendation

1. Policy Recommendation

a) The government should conscientiously implement the law of digital public administration and services delivery in order to build clarity of promoting Open Government strategies in Thailand.

b) Due to the fact that the data governance framework was newly established, the government ought to promote the concept to all government staffs by enlightening and raising awareness about importance of Open Government. Also, the government should publish handbooks or operational guidance to enhance digital capabilities and skills for those who are responsible for digital operation.

2. Operational Recommendation

a) Top executives and leaders in public sectors and other agencies should enhance digital capabilities and skills by participating in training courses and digital seminars regularly held by Thailand Digital Government Academy (TDGA), in order to support Open Government policy and to be appropriate role model for operational level staffs as well as employees.

b) Operational staffs and employees should have self-development habitually by taking online courses in DGA e-Learning services. They are able to improve in digital literacy, in

addition, by learning from various channel; social network, video courses, or guide books, in order to be capable of digital capabilities, skills, and performance sufficiently and readily for digital government transformation in the short run.

3. Academic Recommendation

This research is a part of a dissertation in Degree of Master of Arts in Governance Program which mainly studying digital governance in terms of applying digital technologies to promote and support Open Government in Thailand. The Digital Government Development Agency (DGA) was selected as a case study due to the fact that this is an important central agency which is accountable for digital government transformation. Concept of digital governance, in fact, composes of various issues such as management in digital divide, citizen-centric service, knowledge management, data privacy and digital security, etc. Therefore, those issues are noteworthy and should be further researched with collaboration from government sector, private sector and other related agencies, in order to raise awareness and enhance realization of digital governance study among academic field.

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