OPEN DATA AND DEMOCRACY IN DIGITAL GOVERNMENT TRANSFORMATION IN VIETNAM*

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Abstract. In this day and age, data is seen as a valuable resource. It helps national governments plan, implement and monitor public policies and services. Building an open data system associated with digital government transformation is a trend of many countries in the world, including Vietnam. Open data promises to have many benefits in improving the efficiency of government operations, enhancing transparency, accountability, and beyond, it is an important solution to ensuring people's mastery. But the reality is that the realization of the benefits of open data is a very difficult issue because it depends heavily on the socio-economic context of each country as well as the exploitation and use capacity of related entities. In this study, we focused on evaluating meaningful open data as a guaranteed solution for democracy in countries. At the same time, by recognizing the open data building status of the Vietnamese government and the level of access to open data of people and businesses in modern Vietnamese society, the study offers a perspective on the challenges and barriers posed to building open data systems in a developing country like Vietnam. In addition, we also propose several recommendations to deal with those challenges and barriers.

Keywords: open data, digital government, e-government, democracy, modern government, ensuring democracy, digital transformation, Vietnam.

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Научная статья

ОТКРЫТЫЕ ДАННЫЕ И ДЕМОКРАТИЯ В ПРЕОБРАЗОВАНИИ ЦИФРОВОГО ПРАВИТЕЛЬСТВА ВО ВЬЕТНАМЕ

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Аннотация. В наши дни данные рассматриваются как ценный ресурс. Это помогает национальным правительствам планировать, осуществлять и контролировать государственную политику и услуги. Создание системы открытых данных, связанных с преобразованием цифрового правительства, является тенденцией многих стран мира, включая Вьетнам. Открытые данные обещают множество преимуществ с точки зрения повышения эффективности государственного управления, повышения прозрачности, подотчетности и, помимо этого, являются важным решением для обеспечения демократии. Но реальность показывает: реализация преимуществ открытых данных — очень сложный вопрос, поскольку он во многом зависит от социально-экономического контекста каждой страны, а также от способности использовать их и использовать данные смежных субъектов. В этом исследовании мы сосредоточимся на оценке последствий открытых данных как гарантии демократии в странах. В то же время, признавая нынешнюю ситуацию с созданием открытых данных вьетнамского правительства и уровнем доступа к открытым данным людей и предприятий в современном вьетнамском обществе, исследование даёт представление о проблемах и препятствиях на пути создания системы открытых данных в такой развивающейся стране, как Вьетнам. Кроме того, мы также

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Introduction

Nowadays, open data building initiatives are booming around the world [29]. Providing appropriate data for those who are able to exploit and use can help promote socio-economic innovation as well as strengthen cooperation between the government and people and businesses. Open data with unrestricted privacy and non-secret [13] characteristics is expected to enhance democracy and improve the efficiency of state management [27]. However, for open data to truly work, governments need to constantly improve their data delivery capacity as well as expand people's access to information, seeing open data as a guaranteed solution for modern democracy.

Methods

This study uses the following research methods:

- Secondary document analysis method: is a process of reviewing and evaluating materials to develop an understanding of a research problem [2]. For this method, the author determines the importance of the data source to analyze. The author selected data from the Web of Science's collection as the main source of data for the analysis because of its reliability. It is a high-quality and comprehensive source of the database for academic research as it indexes thousands of well-known journals [6]. Keyword setup is conducted as an important step to getting the correct dataset [17]. The author consulted several experts on keywords, then identified the phrases: "open data", "digital government", "e-government", "democracy", "Vietnam" as the last search terms. In addition, the author has accessed and analyzed official sources from journals, books and research works in Vietnam. In particular, to provide an objective view of the current situation of open data construction and use in Vietnam, emphasizing the use of open data by businesses as a demonstration of the democracy in access to information and freedom in economic development in Vietnam, the author used the results of a sociological survey on the Vietnamese government's readiness to provide open data to the business sector conducted by World Bank experts in conjunction with the Government of Vietnam. As a result of this investigation, the author conducted an analysis and hypothesized about the challenges...
facing the construction and use of open data in Vietnam today, after which, the author conducted in-depth interviews with experts and managers to find answers.

- In-depth interview method is implemented by the author through purposeful sampling and snowball sampling. Initially, the author identified the interview sample as 4 experts in the field of politics and law working at research institutes and universities in Vietnam and 5 managers from the leadership apparatus of big cities (2 in Ho Chi Minh City, 2 in Hanoi, and 1 in Da Nang). With the snowball sampling technique, the author was connected with 3 officials in charge of open data and digital government in big cities and 4 experts studying digital transformation in Vietnam today. The total sample of authors conducting in-depth interviews is 16 people. Because of the impact of the Covid-19 epidemic, the author uses a phone interview. Each interview lasted from 30 minutes to 45 minutes.

**Results**

**Building government open data is tied to ensuring democracy**

Building a digital government is the development orientation and goal of most countries in the world. Digital government is the next stage of e-government development, it is expected to bring huge benefits such as reducing corruption, increasing transparency and objectivity in the operation of the state apparatus, and cutting unnecessary spending sources [10]. The World Bank has made a point about the fundamental difference between e-government and digital government: data is integrated at hubs and shared widely, especially the access of open data with the active participation of all citizens, organizations, and businesses [29].

In this day and age, with the continuous development of science and technology, every country actively implements digital transformation. In the process, the data system created is extremely large, so the data is seen as a special resource for improvement and development. Recently, open data building initiatives have spread rapidly and are seen as a step forward in government management [14]. Open data is understood as the publication of information in an open and reusable format, without restrictions on usage rights and without charge in money for the use of society [15]. The benefits of open data are also viewed from many different perspectives such as: it can contribute to increased transparency and accountability [2; 5] from there, the use of data becomes more efficient and economical. In other words, open data is seen as a testament to transparency, creating opportunities for people to engage and interact with the government while providing diverse stakeholder collaboration [1; 19]. It contributes to increasing the openness of government operations [18; 19] as well as being a strong resource for innovation in the economic sphere, promoting the development of new business models [12].

In relation to democracy, the construction of open data is seen as a way to strengthen democracy through greater transparency, engagement and cooperation between people and government. This is evident in some of the following aspects:
First of all, open data creates transparency as well as increases people's understanding of government operations. Transparency is about facilitating and allowing people to be exposed to information [25] and the government should always uphold accountability [28]. Open data allows users to create applications from existing data, thus encouraging two-way feedback between citizens, businesses and governments [16]. With the support of today's modern science and technology, it is easier to use open data, it both helps the government transmit information to the people promptly while ensuring access to information of the public. This is also the basis for people to be more fully aware of their rights and obligations and actively participate in government decisions [20]. It can be said that open data along with its transparency not only helps increase people's trust in the quality of government data but also encourages people to use them in real processes. This is a very important factor in ensuring democracy.

In addition, with access to open data, people will understand the policy processes and objectives, thereby actively participating in the development of government policies as social owners. With an open data system, the government encourages people to learn about the complexity of policies and participate in discussing specific policies [9]. A full grasp of information will help people have a comprehensive view of the problem, have analysis, choose the advantages and disadvantages, predict different results [10], thereby giving the right and objective opinions. This is also the basis for the government to issue policies that are more suitable to the needs of society and meet the aspirations of the people [23].

In addition, the implementation of construction and use of open data creates conditions for people to perform the function of supervision for the operation of the state apparatus, contributing to reducing corruption and saving public spending. Clearly, the construction of digital government along with an open data system has a positive impact on anti-corruption work. With easy and convenient access to government information and services, people will cut down on unnecessary personal contacts, and they will monitor and limit arbitrary decisions of civil servants [3; 26]. It can be affirmed that the construction of open data is a useful solution in addressing the state's information monopoly, which is considered one of the causes of corruption and the loss of democracy today.

The process of building open data in Vietnam and its problems

Vietnam is a country located in Southeast Asia with a population of nearly 96 million people, living on an area of 330,967 km². As a country with a dominant non-agricultural economic structure (agriculture 17% of GDP, industry: 39% of GDP and services: 44% of GDP) at present, Vietnam is promoting an open economy and strengthening cooperation and diplomacy with other countries in the world. Up to now, Vietnam has diplomatic relations with 185 countries around the world, economic cooperation – trade – investment with 224 international partners; participates and actively contributes to 70 major international multilateral organizations, is a comprehensive partnership with the United Nations permanent countries and G7 countries [30].
Vietnam is making progress on the digital development journey step by step by embracing Technology 4.0. The government has had a clear interest and awareness of the country's opportunities and challenges in the new context. As a developing country, Vietnam has started building e-government quite slowly (since 2000) and has been transitioning to a digital government model from 2020. According to the United Nations E-Government Development Index, Vietnam ranks 86th out of 193 countries [7]. Although the achievements in building digital government are not many, Vietnam always emphasizes that: it is necessary to accelerate the building of digital government and open data system to ensure the people's ownership; build an environment and conditions for the state's policies to be more public, with the active participation of the people and better respond to the needs of the people. However, for this view and goal to become a reality, it requires not only guidelines and policies, but also awareness and acceptance from citizens, because democracy can only be realized and guaranteed with the participation of citizens. The question here is: has the process of building open data in digital government transformation, towards ensuring democracy in Vietnam today, has been done or not? What are the level of citizens and business understanding of open government data?

A survey by World Bank on the Vietnamese Government's open data available for businesses was conducted in Ho Chi Minh City (the largest socio-economic center in Vietnam) in 2018 [30]. There were 40 enterprises from 11 different industries involved, including large, medium and small enterprises. The survey has made many outstanding findings, but within the scope of this work, we only mention some findings regarding the level of awareness of the use of open data by businesses (table 1).

### Table 1

<table>
<thead>
<tr>
<th>Review content</th>
<th>Description of results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of awareness about government data sources</td>
<td>3.25/5 – Average on a scale of 1 (not aware) – 5 (high awareness)</td>
</tr>
<tr>
<td>How important government data is for businesses</td>
<td>3.30/5 – Average on a scale of 1 (not aware) – 5 (high awareness)</td>
</tr>
<tr>
<td>Knowledge and skills to use open data</td>
<td>3.67/5 – Average on a scale of 1 (not aware) – 5 (high awareness)</td>
</tr>
<tr>
<td>How responsive the government is to data demands</td>
<td>3.31/5 – Average on a scale of 1 (not aware) – 5 (high awareness)</td>
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It is worth noting here: currently, most businesses in Vietnam need to use information from the government to exploit and serve production and business activities (66%), but
When asked about the level of awareness of open data sources of the Government, almost no business is familiar with the concept or terminology of open data, and few of them are aware of copyright issues and regulatory barriers, even many businesses do not trust the current government data system and assume that the data provided by the government is of low value. The level of access to open data sources is only 3.25/5 points.

Next, discuss the barriers for businesses in their exposure to open government data. From the results of the above survey, we illustrate in the form of the following chart (fig. 1):

![Figure 1: Barriers to Vietnamese businesses in accessing open government data](source: author's compilation)

Thus, it can be seen that there are many problems for building open data in digital government transformation in Vietnam today, including two main issues, namely: the quality of government-provided data sources is limited and the level of awareness, approach of businesses and people have not met the requirements of digital government development. So what are the reasons for this situation and the challenges facing the Vietnamese government in building open data today?

Through the results of in-depth interviews with 16 experts and managers in Vietnam, we found that the causes and problems posed to open data building in digital government transformation in Vietnam are as follows:

First, there is a lack of a legal framework for open data building: Currently, although the Vietnamese government is aware of the importance of building open data because of the enormous benefits it brings, the government has not yet developed a specific regulatory framework for this issue. Currently, Vietnamese state agencies and civil servants do
not have a clear understanding of what data is opened and which data must be closed. Most of the managers interviewed said that it was the lack of clarity in the current classification of open and confidential data by the Government that led to the fear of state agencies in providing information. This makes the government's open-source of information poor and does not meet the needs of people and businesses. This is the reason for the lack of trust and expectation of open data provided by the Government.

Second, there is a lack of expertise in open data construction. The construction of open data requires a team of highly skilled technical experts in the field of information technology, but currently, in Vietnam, the number of highly skilled engineers is very small. Moreover, these people are often attracted to the private sector with many attractive salaries and remuneration regimes (9 experts interviewed all agree with this view). It is the lack of highly specialized IT engineers in the public sector that is the cause of the slow construction of open data systems, lack of flexibility, substandard data format and lack of security of users' personal information.

Third, there is a lack of coordination mechanisms between state agencies, central authorities and local authorities in building open data. 12 of the experts and managers interviewed concluded that the lack of synchronous coordination between state agencies and levels in the process of building open data in Vietnam is now a major barrier. Vietnam has yet to build a shared internal database system for all levels of government, a digital information platform mainly concentrated in central agencies. Local agencies have difficulty accessing, even having a lot of data that restricts local access. In addition, the data source provided by different central agencies is overlapping, inconsistent, leading to people and businesses difficult to select during the search process. In particular, there exists the situation of information scattered in many websites with many different formats, creating many difficulties for people and businesses in the process of access.

Fourth, people's access to open data is limited. Although Vietnam is currently rated as a country with a high rate of technological penetration (mobile penetration rate is 128%, much higher than the average of the Asia Pacific region (98.9%); global Internet penetration rate is 52.7%; social network penetration rate is 40.8%) [30], however, it must be acknowledged that currently, Vietnamese people are not used to researching and using public services online as well as accessing open data sources. Except for a segment of the population in large cities and the young intellectual class, the majority of people, especially those living in rural areas, do not have the skills to use technology in the search for data and use of public services online of the state. The contribution of opinions to state decisions to express democratic rights is made only through direct contributions at meetings, or in boxes of comments at the offices of state agencies. This is a major difficulty in achieving the goal of ensuring democracy through the open data system of the Vietnamese Government current.

Fifth, there are many limitations in propaganda and dissemination of open data. Although in recent years, the Vietnamese Government has renewed the form of propaganda and
dissemination of new guidelines and policies, including the Government's policy of promoting the construction, exploitation and use of open data but people still do not have much access to this information source. This stems from the lack of robustness in the government's propaganda. Poor propaganda content, lack of attractiveness and lack of diversification of propaganda forms are major limitations [8]. This is the reason for the awareness of citizens as well as civil servants about the goal of building open data and the importance of open data is not high. Obviously, with the advancement of the open data building movement, all types of public organizations are under pressure to publish their data because most of the data is collected at the local level [4] but at present, even residents and local authorities are not aware of their rights and obligations to open data. Are the benefits of open data available?

Discussion

It can be said that building open data brings great benefits. It helps the government improve transparency and publicity because people always have the information they need to be able to compare and collate; at the same time, allowing access to information and data is to create the most favorable conditions for people to exercise democratic rights and participate in state management [21]. Recognizing the practice of building open data associated to ensure democracy in Vietnam today, it can be seen that although the Government is aware of the importance of building open data, the Government has not yet demonstrated its readiness to provide data because there are still many limitations in the legal framework and professional capacity. At the same time, the lack of people's expectations for open government data and the lack of skills, cognitive capacity and use of open data are also barriers to promoting the benefits of open data in Vietnam today.

Third, focus on the selection and recruitment of high-quality IT engineers to serve the implementation and application of information technology in the process of building open data. At the same time, promote training and fostering skills in building, organizing, sharing and exploiting open data for existing public sector human resources.

Fourth, focus on the propaganda and disclosure of information on open data sharing. It can be affirmed that open data only maximize the benefits when there is active participation from individuals, organizations and businesses outside of society. Therefore, it is necessary to further promote propaganda activities so that each citizen and business is aware of the benefits of participating, using and contributing to the construction of open data, encouraging people to participate more in state management activities. This is the premise to be able to successfully build the current digital government initiative.

Conclusions

Building government open data as a solution to ensure democracy is an inevitable development trend in the modern world. As society develops, the need to exercise freedom and democracy is increasing. The strong application of information technology in
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State management and publicity and transparency of information for the people is something that governments should do and need to do. In this process, the participation of the people and the management and administration capacity of the government should be considered as the two most important factors. For a developing country like Vietnam, the lack of necessary resources, especially high-quality human resources, is a major barrier in building open data and digital government. At the same time, several other barriers such as the legal system, the accessibility of the people, the educational level, etc. are also issues that need attention. However, these barriers can still be overcome with efforts from the government and the consensus of the whole society. This is also an open issue for further studies on digital government and open data in Vietnam today.

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