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FOUNDATION *For Freedom.*

POLICY PAPER

**Unlocking Growth and Resilience: The
Crucial Role of Open and Transparent
Data in Socialist Vietnam**

BUGRA KILINC

Imprint

Publisher

Friedrich-Naumann-Stiftung für die Freiheit
Truman Haus
Karl-Marx-Straße 2
14482 Potsdam-Babelsberg
Germany



/freiheit.org



/FriedrichNaumannStiftungFreiheit



/FNFreiheit

Author

Bugra Kilinc

Editors

Prof. Dr. Andreas Stoffers
Ngoc Le
Fritz Kürmayr

Contact

Phone: +49 30 22 01 26 34
Fax: +49 30 69 08 81 02
email: service@freiheit.org

Date

July 2023

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Introduction

Governments around the world are recognizing the importance of open data and artificial intelligence (AI) in driving economic development and improving management capabilities. Recently, Vietnam's Deputy Minister of Information and Communications, Nguyen Huy Dung, emphasized the importance of open data and AI to the country's current development trend ([Ministry of Information and Communications of the Socialist Republic of Vietnam, 2023](#)). As Vietnam strives to innovate, foster public-private collaboration, and drive socio-economic development, it is critical to recognize that technology alone is not enough to achieve these goals. A critical foundation for this transformative journey is ensuring widespread access to, and provision of, data by both government and business. Recognizing the importance of open data and the catalytic use of innovation, this paper serves as a policy consultation to help the Vietnamese government develop a strategy to foster an environment in which open information practices can thrive within Vietnam's digital data transformation agenda.

Data Publicly Benefits

In today's rapidly evolving digital landscape, access to data has emerged as a critical factor for driving innovation, promoting transparency, and fostering socio-economic development. The implementation of a digital data strategy, therefore, results in a multitude of benefits that permeate the entire social and economic structures. In

2015, the World Bank published a report titled "Open Data for Sustainable Development", which highlighted the critical role of open data in advancing sustainable development ([World Bank, 2015](#)).

One of the key benefits highlighted in the report is the **promotion of economic growth**. Open data acts as a catalyst by facilitating the creation of new businesses, optimizing resource allocations, creating employment opportunities, and attracting foreign investment. An explicit example of how data optimization can drive economic growth is provided in a paper by Carrière-Swallow and Haksar of the International Monetary Fund ([Carrière-Swallow and Haksar, 2019](#)). It highlights the positive impact of data on market efficiency, particularly in the financial services sector. By improving data availability, information asymmetries in financial markets can be reduced, leading to lower financing costs and increased access to loans. Moreover, data sharing among financial service providers can effectively address issues of adverse selection and moral hazard, thereby fostering a more complete and inclusive credit market. This issue is of particular importance in Vietnam, especially in the current context of the real estate market and associated financing of a high volume of real estate projects ([Barnes, 2023](#)). An interesting correlation between data openness and availability and GNI per capita can be seen in *Figure 1*. It indicates that the more available and open the data in a country, the higher the GNI per capita (this relationship can also be seen the other way around).

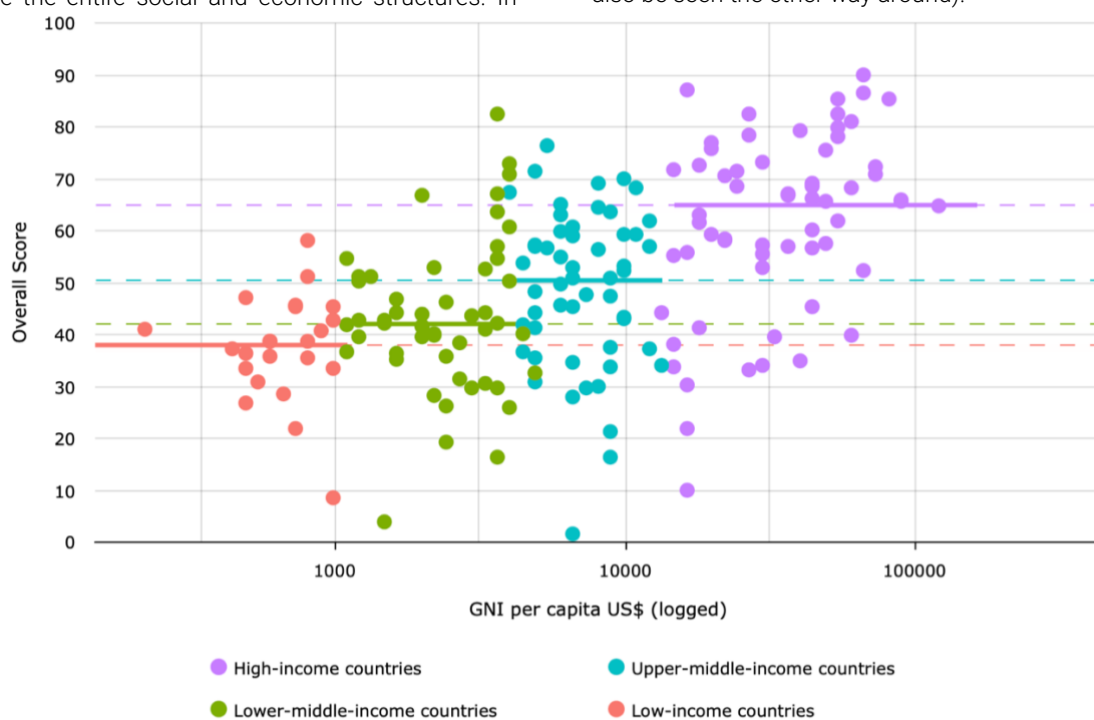


Figure 1 Country overall scores based on ODIN and GNI per capita, 2016-2022 ([Open Data Watch, n.d.](#))

Another benefit, that is mentioned in the World Bank report, is the **improvement of labor market efficiency** due to increased data and accessibility. This allows for real-time analysis, especially in times of economic (internal or external) shocks. It also allows for various analyses, including assessing skill premia, understanding skill adjacencies and career pathways, facilitating reskilling and upskilling efforts, and cataloguing emerging technology skills ([Nitschke et al., 2021](#)).

Open data also plays a crucial role in **strengthening health systems**. A notable study published in the Journal of Medical Internet Research delved into this topic by examining the impact of utilizing big data to gain insights into people's health, aligning with the WHO's Thirteenth General Programme of Work and the European Programme of Work. The study included more than 2,500 primary studies involving approximately 5 million individuals. It highlighted several future prospects for the use of big data tools in healthcare, including real-time analytics to improve decision making, patient-centered care and quality improvement, health threat detection, reduction of resource waste, and better fraud detection ([World Health Organization, 2021](#)). In addition to these benefits, open data also supports initiatives that promote education and continuous learning in the medical field ([World Bank, 2015](#)).

A UN policy brief on the COVID-19 pandemic further underlines the value of open data and AI analytics in **better political decision-making**. Governments can leverage a variety of data sources, including official statistics, administrative data, open data, and big data analytics, to effectively respond to the pandemic. Using AI platforms and data visualization tools, these analytics enable real-time tracking of virus spread, prediction of mutations, and identification of potential treatments. Governments are using these insights to formulate both short- and long-term strategies for managing the crisis ([Statistics Division of UN Department of Economic and Social Affairs, 2020](#)).

The World Bank report also highlights another crucial aspect, which is the **improvement and trust in governance**. Open data plays a critical role in improving governance by exposing instances of mismanagement and corruption. By exposing instances of mismanagement and corruption, open data promotes transparency, accountability, and the adoption of good governance practices. ([World Bank, 2015](#)). An example of the impact of data on government's trust is a noteworthy paper by Alessandro et al. (2021). They conducted a survey experiment to examine the relationship between transparency and trust in government. Their findings highlight the positive impact of the government's active provision of information on citizens' perceptions of transparency. By increasing transparency, the government can effectively increase

public trust. However, it is also important to note that the link between transparency and trust can be influenced by the performance of the government. Therefore, it is crucial for the government to provide accurate and reliable information about its performance. At the same time, it is imperative to avoid manipulating information to deceive the public, as this is not a viable solution. In an era of "fake news", the value of providing information can be undermined, leading to a loss of trust. To maintain transparency and foster public trust, it is essential for the government to ensure that the information it shares is trustworthy and unbiased ([Alessandro et al., 2021](#)).

Last but not least, open data plays a crucial role in **promoting environmental sustainability**, which is increasingly driving global business and government decision-making. By providing and enhancing access to data, open data empowers stakeholders (governments and business) to make informed decisions that help protect natural resources, reduce environmental damage, and increase resilience to climate change ([Runting, Phinn, Xie, Venter, & Watson, 2020](#)). This is especially interesting for urban development, as open data empowers all relevant stakeholders to actively participate in the creation of technologically advanced "smart cities" by facilitating data-driven decision-making and improving urban planning processes. In addition, open data contributes to the efficiency and sustainability of urban transport systems. It also increases the resilience of cities during emergencies by ensuring the effective use of critical resources ([World Bank, 2015](#)).

However, in addition to the benefits, there are a number of risks and challenges associated with publishing data that need to be addressed carefully. One risk is the potential violation of rights and freedom where data is published that is, for example, prohibited by law. This can have legal consequences and undermine public trust in the government's handling of data. Violation of privacy is also a concern because personal information can be exposed, compromising individuals' privacy and potentially leading to identity theft or other malicious activities. Another risk is potential damage to infrastructure security. Detailed information about infrastructure, such as power plants, dams, and transmitters, can be used by actors with malicious intent to cause damage or destruction. Protecting infrastructure-related data is essential to ensuring the safety and stability of critical systems. Inaccurate data can also be a challenge. When primary data is inaccurate or unreliable, it can lead to the publication of inaccurate open government data, undermining the integrity and usefulness of the information. Misinterpretation of data is another risk, as published data can be open to different interpretations, intentionally or unintentionally, which can lead to the spread of misinformation, manipulation of public opinion,

or harm to individuals or organizations. In addition, the publication of data may affect the willingness of citizens to cooperate. When results of regulatory oversight are made public, it could lead to a situation where individuals are publicly showcased for misconduct (regardless of guilt or not). This risk could result in a reduced willingness to cooperate with authorities. Finally, the increased publication of datasets may lead to an increased number of requests or questions about the published data or related information that may lead to an increased bureaucratic burden and complexity. ([Kucera & Chlapek, 2014](#)).

In summary, while open data presents risks and challenges, it is essential for the government to establish robust policies and frameworks to ensure compliance, protect sensitive information, publish accurate data, and communicate effectively. By addressing these risks, the potential of open government data can be unleashed while trust and accountability are maintained. Fostering data transparency is critical to the development of countries like Vietnam in the digital age. As previously elaborated, ensuring open data provides multiple benefits, such as economic growth, improved market efficiency, better healthcare, improved governance, and greater environmental sustainability. Vietnam can unlock these benefits and drive innovation, development, and resilience in the country by promoting data transparency.

Before discussing the concrete steps to achieve these benefits, we first need to assess Vietnam's current state of data transparency. This assessment will guide us in identifying the measures necessary for successful realization.

Summary

Benefits

- Crucial for innovation, transparency, and socio-economic development.
- Promotes economic growth.
- Reduces financing costs, increases access to loans, and fosters a more inclusive credit market.
- Improvement of labor market efficiency.
- Strengths of the health care system.
- Improves governance by exposing mismanagement and corruption.
- Promoting transparency, accountability, and good governance practices.
- Build long-term trust in government.
- Promotes environmental sustainability.
- Provides greater input to urban development stakeholders.

Risks & Challenges

- Potential for Breach of Law and Violation of Rights and Freedoms.
- Risk of invasion of privacy and exposure of personal information.
- Compromise of infrastructure security.
- Inaccurate and unreliable data.
- Misinterpretation of data leading to misinformation and manipulation.
- Impact on subjects' willingness to cooperate.
- Increased number of inquiries and questions about published data.

Status Quo Vietnam

As data openness and transparency can be an important driver of many factors, it is important to assess Vietnam's progress on data openness and highlight its successes, challenges, and potential areas for improvement before identifying specific recommendations for action. This policy paper focuses on two relevant data sources to assess Vietnam's status of data openness and general data accessibility.

3.1 Open Data Inventory (ODIN)

Measuring the level of data openness in a country requires the use of different analyses, and a valuable database for this purpose is the Open Data Inventory (ODIN) developed by Open Data Watch (ODW). Analyzing the ODIN scores for Vietnam from 2015 to 2022/2023, we observe only minimal fluctuations in the overall score, which increased from 48 in 2015 to 54 in 2022/2023. However, there were significant declines in 2017 and 2018. Compared to 2015, the overall score did not increase significantly in 2022/2023 ([Open Data Watch, n.d.](#))

Assessing Vietnam's progress in open data development compared to other ASEAN countries (Brunei Darussalam is not included due to missing data), it appears to be on par with the regional average. Despite experiencing higher economic growth than some ASEAN countries, Vietnam's performance in open data does not particularly stand out (Coverage: 9th and Openness: 5th out of 11). In contrast, countries such as Indonesia and Singapore have made remarkable progress in this area. In particular, Singapore takes the lead in the overall global ranking for 2022/2023. A comprehensive analysis of the results is critical to gaining a deeper understanding of Vietnam's scores in

2020 and drawing meaningful implications from them¹.

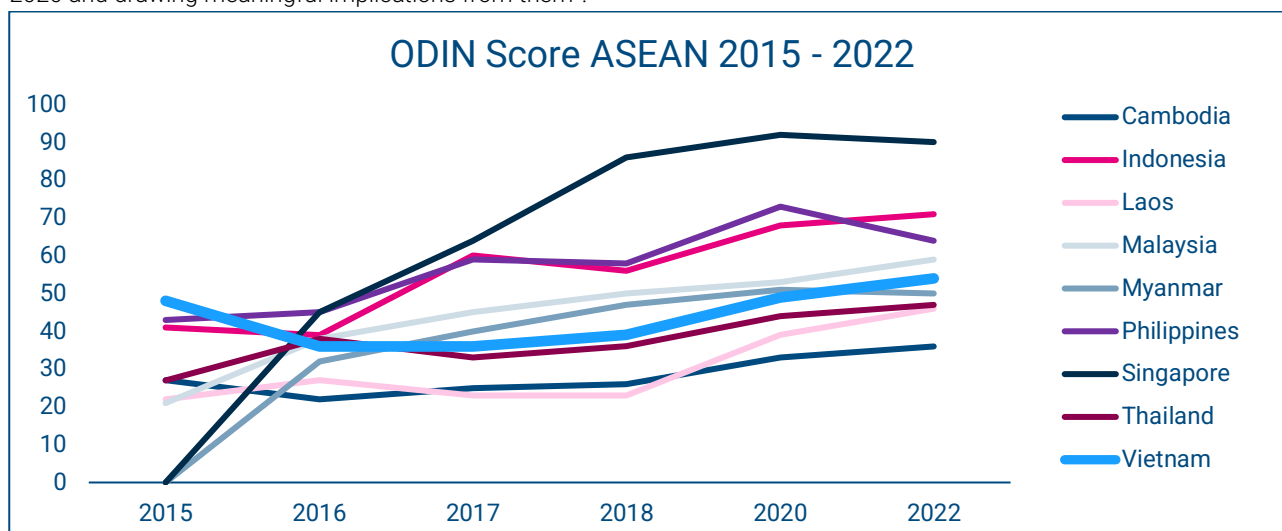


Figure 2 Individual ODIN Score for ASEAN countries from 2015 to 2022 ([Open Data Watch, n.d.](#))

Analyzing the 2020 ODIN scores for Vietnam, which are based on coverage and openness criteria, provides insights into the country's data landscape ([Open Data Watch, 2023](#)).

Open Data Watch (ODW)

Open Data Watch (ODW) is an international NGO focused on improving data systems and promoting data accessibility for the public good. They support national plans and the SDGs in low- and middle-income countries. ODW advocates for well-governed statistical systems that meet user needs while protecting privacy. They monitor and support open data practices to ensure openness, accessibility, and user satisfaction.

ODW's flagship initiative, the Open Data Inventory (ODIN), benchmarks NSOs' open data strategies. ODIN assesses indicators in 187 countries, highlighting data gaps and areas for improvement. ODW organizes conferences, workshops, and research to promote best practices and explore open data issues.

ODW is a UN-accredited NGO and actively participates in the Secretary-General's Advisory Group of Independent Experts. Based in Washington, DC, ODW is a non-profit organization funded by the William and Flora Hewlett Foundation and partners with organizations such as Data2x, PARIS21, and IDRC.

Social Statistics

For social statistics, coverage scores range from 30 to 60,

indicating that data in this category meet some ODIN coverage criteria, but important gaps remain. The openness scores for social statistics, however, range from 40 to 70, indicating that data in this category generally meet most of the ODIN openness criteria. An important point to mention here is the data on crime and justice, where the government does not provide any data at all. There is also a low level of data coverage in the area of gender statistics. Overall, the social statistics category receives an average score of 46, reflecting the presence of significant coverage gaps but relatively good openness.

Economic Statistics

For economic statistics, coverage scores range from 38 to 60, indicating that some ODIN coverage criteria are met, but that significant gaps remain. Scores for openness range from 49 to 70, indicating that Vietnam's economic data generally meet most of ODIN's openness criteria. However, it should be emphasized that there is no information on Money and Banking data (i.e., Money supply and interest rates) and Balance of Payment (i.e., Current account and Capital and financial account). The overall score for economic statistics is 45, indicating significant gaps in coverage but a reasonable level of openness.

Environmental Statistics

For environmental data, coverage scores range from 20 to 100, indicating that while some ODIN coverage criteria are met, significant gaps remain. On the other hand, openness scores range from 30 to 70, indicating that environmental data in Vietnam generally meet most of the ODIN openness criteria. With an overall score of 57, the

¹ Note: The 2022 ODIN country report for Vietnam is not available at the time of publication, but the small overall change from 2020 to 2022 suggests that there will be only few changes in any of the areas.

environment category shows a mix of coverage gaps and relatively good openness. However, there is a large deficit within the built environment sector scoring very poorly in both data access and data availability.

Considering all categories together, the average coverage score is 44, indicating that some coverage criteria are met, but important gaps remain. The average openness score is 54, indicating that data in Vietnam generally meet most of the ODIN openness criteria. The overall score for all categories combined is 49, highlighting the existence of coverage gaps, but also reflecting a reasonable level of openness in several areas. In summary, the results show that the accessibility of data is better than the overall availability of data. Reflecting on the initiative of Vietnam's Deputy Minister of Information and Communication, Nguyen Huy Dung (mentioned in the introduction), he focuses primarily on data access, while the provision of baseline data is also of significant importance. This suggests that while efforts have been made to improve data access in Vietnam over the years, it is also critical to ensure the availability of baseline data for comprehensive and meaningful insights.

3.2 United Nations E-Government Index

Another data source that gives us an interesting insight is the UN's E-Government Survey (EGDI), which assesses the development of all UN members under the e-government criterion ([UN E-Government Knowledgebase, n.d.](#)). It considers various factors, including website development patterns, access characteristics and the use of information technologies to promote access and inclusion of citizens. The EGDI combines three key dimensions of e-government: online service delivery, telecommunications connectivity, and human capacity. It is important to note

that the EGDI is not intended to measure e-government development in an absolute sense. Instead, it provides a comparative assessment of national governments in relation to each other.

UN E-Government Survey

Is a biennial report published by the United Nations Department of Economic and Social Affairs (UN DESA) that assesses the e-government development of countries worldwide. The survey provides insights into the progress and trends in e-government implementation, highlighting the use of information and communication technologies (ICTs) to improve public services and enhance government operations. It evaluates the e-government readiness, which includes aspects like the availability of online services, digital infrastructure, human capital, policy frameworks, and the level of ICT adoption by the government and citizens. It also measures the e-participation and e-services indexes, which assess the online availability of government information, online service delivery, and citizen engagement through digital platforms.

Analyzing Vietnam's ranking in the UN E-Government Survey over the years, several findings can be observed (Please note that the "best" countries are at the bottom of the Figure 3). Vietnam has demonstrated a consistent and moderate level of e-government development over the years, consistently ranking among the top 100 countries. Although there have been slight fluctuations in its rankings, they have generally remained within a narrow range, indicating only a gradual relative improvement in e-government performance over the last decade.

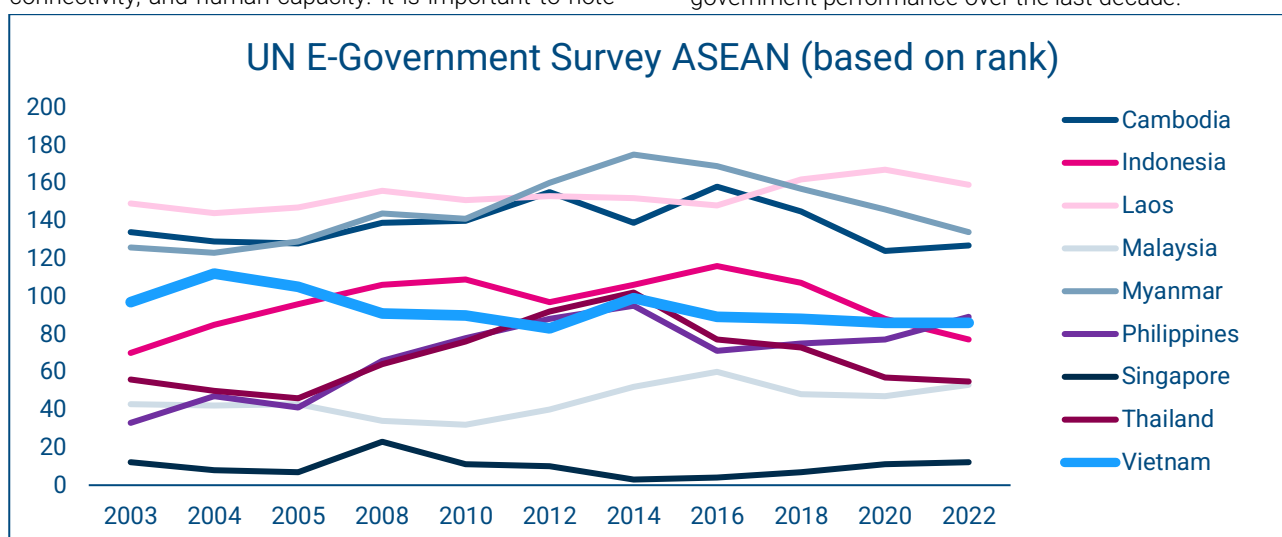


Figure 3 UN E-Government Survey based on rank for ASEAN countries from 2003 to 2022. Please note: The lower the graph, the better the country is ranked ([UN E-Government Knowledgebase, n.d.](#))

However, compared to countries such as Singapore and Malaysia, which consistently rank higher than Vietnam, there is room for improvement. By studying the practices of these countries and identifying areas to focus on, Vietnam can improve its e-government implementation and close the gap with higher-ranked countries. This analysis suggests that Vietnam has made commendable progress but could benefit from learning from the

successes of its regional peers to further improve its e-government capabilities. Nevertheless, a detailed analysis of the performance of ASEAN countries, and Vietnam in particular, is also useful in terms of scoring, as it may be the case that other countries have made much greater progress and that Vietnam's improvements are relatively not strong enough compared to other countries.

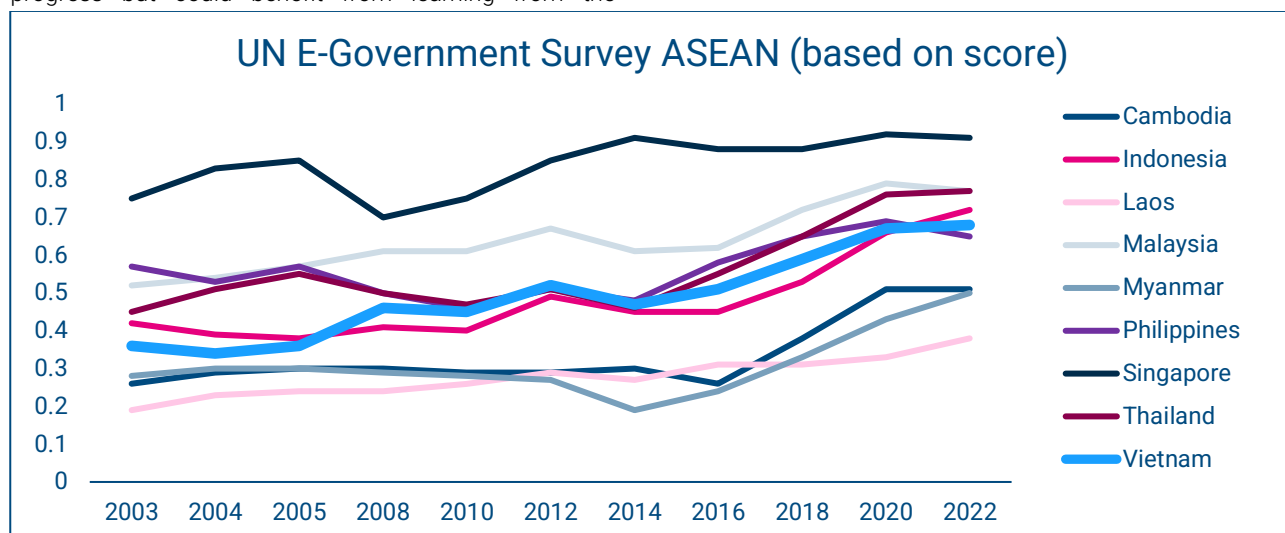


Figure 4 UN E-Government Survey based on individual score for ASEAN countries from 2003 to 2022 (UN E-Government Knowledgebase, n.d)

Vietnam's performance in e-government development, as measured by the UN, has shown a positive trend over the years. Its E-Government Development Index score has gradually increased from 0.36 in 2003 to 0.68 in 2022, indicating steady progress in using technology to improve governance and public services. Compared to neighboring countries such as Cambodia, Laos and Myanmar, Vietnam consistently outperforms them in terms of e-government development. Vietnam's scores consistently exceed those of its neighbors, indicating a more advanced level of digitization and e-government implementation.

However, Vietnam's E-Government Development Index scores are relatively lower compared to regional peers such as Indonesia, Malaysia, the Philippines, Singapore, and Thailand. These countries consistently score higher, indicating more advanced e-government systems and greater use of technology in public services. Once again, Singapore stands out as a notable case of outstanding achievement in e-government development. The country consistently scores high on the E-Government Development Index, outperforming other countries in the region (and the world).

Summary Open Data Inventory & EGD Index Scores

- Based on the ODIN score Vietnam's overall score increased only minimal from 48 in 2015 to 54 in 2022/2023, with fluctuations in between.

- Compared to other ASEAN countries, Vietnam's progress in open data development is on par with the regional average, but it does not stand out.
- Countries such as Indonesia and Singapore have made notable progress in open data, with Singapore leading the global rankings.
- In the specific areas assessed, Vietnam's social statistics have relatively good openness but significant coverage gaps, while economic statistics have significant coverage gaps, especially the banking and finance as well as the construction sector.
- The average ODIN coverage score across all categories is 44, indicating gaps, while the average openness score is 54, indicating acceptable openness in several areas.
- Vietnam outperforms neighboring countries in e-government development, but has lower scores compared to regional peers such as Singapore and Malaysia.
- Vietnam's E-Government Development Index scores have shown a positive trend over the years, indicating progress in using technology to improve governance and public services.

Best practice Singapore

Based on the ODIN Report and the UN E-Government

Development Index, there is one country that especially stands out and is also a member of ASEAN: Singapore, which repeatedly leads the world in the ODIN Report and is also one of the leading nations worldwide in the UN E-Government Development Index. Accordingly, it is very interesting to understand how this success has been achieved.

Leading the way, Singapore's success did not come out of nowhere. Back in 2014, Singapore's Smart Nation vision was proclaimed as a national initiative aimed at using technology and data to create a technologically advanced and highly connected society. This is expected to improve the lives of citizens, increase economic competitiveness, and build a sustainable future within three main pillars: Digital Society, Digital Economy, and Digital Government ([Smart Nation Singapore, n.d.](#)).

To implement this vision, in 2016 a new authority was founded: The Government Technology Agency of Singapore (GovTech) under the Ministry of Communications and Information of the Government of Singapore. In 2017 GovTech was moved to the Prime Minister's Office (PMO) ([Prime Minister's Office Singapore, 2017](#)). GovTech understands itself as a connector between individual authorities and data sources, with the main mission to lead the government's digital transformation and drive the use of technology to improve public services and significantly enhance the lives of citizens ([GovTech, n.d. a](#)). GovTech divides its responsibilities into five capability centers to drive digital transformation and enhance government services. Each center has specific goals and functions:

- **Application Design, Development & Deployment:** This center prioritizes citizen-centric government digital services, leveraging expertise in design and software development methodologies to deliver scalable and resilient digital solutions.
- **Cybersecurity:** The Cybersecurity Centre develops comprehensive capabilities to protect government systems and works to implement secure architectures and cybersecurity governance across agencies.
- **Data Science and Artificial Intelligence:** This center applies data science and artificial intelligence to derive insights and build intelligent platforms that improve citizen services and support government policies. It also focuses on upskilling civil servants and supporting agencies with their data strategies and infrastructure.
- **Government ICT Infrastructure:** This center develops a centralized ICT infrastructure, including data

centers, applications, networks, and devices, to optimize government operations and improve the user experience for public servants.

- **Smart City Technology:** Formerly known as Sensors & Internet of Things (IoT), this center designs and implements an IoT infrastructure to enable smart city applications. It facilitates data collection and management through the connectivity of smart objects.

One of the most important components, especially in the context of data openness and transparency, is the [Data.gov.sg portal](#) that Singapore's Smart Nation vision is also subordinate to, and therefore the responsibility of, GovTech ([Data.gov.sg, n.d.](#)). Key features of the portal include dashboards with interactive charts and visualizations on the home page and topic pages that provide quick access to relevant information. People can preview the data content without downloading it, and share data through charts and tables. Data.gov.sg uses visualizations to demonstrate the importance of data in improving the lives of citizens. It also emphasizes data quality by standardizing formats, ensuring machine readability, and improving documentation. In this way, data users can easily analyze and visualize datasets without having to spend a lot of time preparing the data. The Developer's Portal provides a centralized platform for accessing real-time data APIs from different agencies ([GovTech, n.d. b](#)). As of March 2019, Data.gov.sg already provided access to more than 1,600 high-quality datasets and 14 real-time APIs from 70 public agencies, and recorded high user activity with more than 300,000 monthly page views and 13 million monthly API calls ([GovTech, n.d. b](#)).

In summary, Singapore has achieved remarkable success in data openness and IT infrastructure, positioning itself as a global leader in the use of technology and information due to their success of GovTech and their Smart City vision. This is reflected in the rankings in particular. Considering the ODIN rankings around the year 2014 and 2016, Singapore made significant progress and in only a few years, it moved from the middle of the world to the top of the rankings. This success is due to a combination of visionary initiatives, strong governance, and a commitment to continuous improvement. The launch of the Smart Nation vision in 2014 marked an important milestone for Singapore. This national initiative aimed to embrace technology and data to create a highly connected, technologically advanced society. It laid the foundation for Singapore's digital transformation and set clear goals for its development. It is important to note that its success, as with any digital project, was driven by the government's willingness to shape a holistic digital transformation with a clear strategy.

The establishment of the Government Technology Agency of Singapore (GovTech) in 2016 further accelerated Singapore's progress. GovTech serves as a critical link between government agencies and data sources, leading digital transformation efforts and driving improvements in public services. By centralizing the country's digital vision and related responsibilities, this authority establishes a single gold standard for data and effectively aggregates digital capabilities. It also streamlines the transformation process and data structures through a unified approach, eliminating decentralized systems.

At the heart of Singapore's data openness and transparency efforts is the Data.gov.sg portal, which is administered by GovTech. This portal provides access to a wide range of high-quality datasets and real-time APIs from numerous government agencies. It offers user-friendly features such as interactive charts, visualizations, and easy data previewing, with an emphasis on data quality, standardization, and machine readability. The Developer's Portal improves access to real-time data APIs, making it easier for citizens, businesses, and public administrations to explore and use data for decision-making, analysis, and innovation.

However, the success of Singapore's digital transformation also brings to light drawbacks that require critical assessment. While increased transparency and data disclosure can foster innovation and collaboration, there are always risks. Data serves as the bedrock of all innovative processes, making it a potential source of abuse or exploitation. There have already been criticisms of the indiscriminate and massive collection of citizens' data under the pretext of Singapore's Smart City Vision (especially under the guise of security). A recent example of such concerns is the [TraceTogether](#) app, originally developed during the Corona pandemic in 2020 to identify close contacts of individuals testing positive for Covid-19. However, the app has been misused beyond its intended scope to facilitate active data sharing with police authorities to track suspects. (Yang, 2022). In addition, the app's content was also directly linked to citizens' Singpass and HealthHub accounts, which serve as key digital gateways to government services. This integration resulted in the public's immunization status and current test results being displayed across different platforms, making this information easily accessible to various government agencies (Guest, 2021). Collecting the data and linking it to different government agencies, clearly show how quickly initial innovations were used for surveillance in Singapore.

Another related example is the introduction of the [Xavier](#) police robot, which is designed to address "undesirable social behavior" in public spaces such as smoking,

peddling, improper parking of bicycles and motorcycles, and gatherings of too many people. Whenever Xavier detects one of these situations, it immediately sends real-time alerts to the command center, while displaying appropriate messages based on the specific scenario. While this innovative approach can certainly reduce the need for large numbers of police officers patrolling the streets, it also raises concerns about the overall sense of surveillance and control that Singaporeans may feel compared to other countries (Reuter, 2021).

The two examples from Singapore show the importance of maintaining a balance between using data for the benefit of society and protecting individual privacy. While innovation thrives on data-driven insights, measures must be taken to protect personal information from unauthorized access and misuse. While the ethical and responsible use of data is also a priority in Singapore's digital transformation, according to responsible authorities, there is increasing indication that it is also being used to engage in surveillance. Accordingly, when considering Singapore as a best practice, it is important to also keep these dangers in mind.

Taken one by one, Singapore's collaborative approach, visionary initiatives and commitment to continuous improvement have positioned it as a global leader in (government) data openness and digital transformation. By fostering a culture of data-driven decision-making and innovation, Singapore has set the standard for leveraging technology and data for social, economic, and governmental development. However, it has also brought with it the risk of surveillance, and has already embraced critical developments in certain sections, which must always be viewed critically in the future.

Implications

Back in 2020, Vietnam took a step in the right direction with Decree No. 47/2020/ND-CP ([THƯ VIỆN PHÁP LUẬT, 2020](#)). This decree establishes regulations for the management, connection and sharing of digital data by government agencies in Vietnam. It emphasizes the importance of data sharing for the public and the business community while respecting data protection rights. State agencies must share data with others and designate focal points for data sharing, comply with information security and intellectual property regulations, and meet technical requirements and e-government architecture. Overall, the regulation aims to improve efficiency and cooperation among state agencies in data management.

While political awareness in Vietnam has shown clear signs of improvement, there is still a long journey ahead to achieve optimal data availability and coverage in Vietnam. This is also reflected in the Vietnam Provincial

Competitiveness Index 2022, which reveals how businesses in Vietnam face challenges in accessing government information and documents essential to their operations. Most businesses reported difficulties in accessing planning or legal documents. Average scores for adequacy and fairness of access are below the desired level of ease. None of the document types included in the report were rated as "easy" or "very easy" to access by more than one-third of respondents in the central provinces. These findings underscore again the need to improve accessibility to support the growth and competitiveness of businesses in Vietnam ([Provincial Competitiveness Index, 2023](#))

To achieve its aspirations of becoming a developed country in the data realm alongside economic growth, Vietnamese policymakers could get inspired by Singapore's efforts as a promising blueprint. By exploring Singapore's strategies and adapting them to the Vietnamese context, policymakers can establish a strong foundation for a robust data ecosystem that serves the country's growth and development goals and enhances its overall resilience while imposing higher governance norms and safeguards against privacy breaches and citizen surveillance.

Vietnam's Road to Success

The journey to an open, transparent, and innovative economy in Vietnam would begin by articulating a clear vision. This vision is intended to articulate Vietnam's commitment to open and transparent data to sustain economic success while promoting political, social, and economic resilience. By establishing this vision, policymakers can foster broad support from all relevant stakeholders and lay the groundwork for transformative policy decisions that align with Vietnam's long-term goals. Based on this vision, the following specific steps are recommended:

First, Vietnam would benefit from focusing on establishing a central authority responsible for overseeing and implementing the country's Data Policy. This authority could establish clear standards and guidelines for data management to ensure consistency and interoperability across all government agencies in Vietnam. It would be important to anchor the agency firmly on the political agenda and to grant it the necessary political authority to be able to assert itself among the diverse agencies in all regions of Vietnam. In this regard, it would also be beneficial to attract the most capable developers and IT specialists to this agency to ensure that an excellent solution is built from the beginning.

Second, Vietnam is advised to prioritize developing a comprehensive Data Infrastructure. This includes investing in data centers, networks, and other necessary technologies to support efficient data storage, processing, and sharing. By building a robust data infrastructure, Vietnam would improve its data accessibility and enable effective data-driven decision making. It is also valuable to

be agile and able to scale and adapt as technology evolves.

Third, It would be advantageous for Vietnam to promote data openness and transparency. One way to accomplish this is through the creation of a platform, similar to Singapore's Data.gov.sg, where high-quality datasets from various government agencies can be made available to the public. Emphasis on data quality, standardization, and machine readability will allow easy analysis and use of the data. It would be important for the newly created authority to act as a gatekeeper to ensure that consistent standards are maintained.

Fourth, it would be beneficial to build a robust API infrastructure for the platform that allows businesses (and other counterparts) to access data seamlessly and directly. This API structure can facilitate efficient and straightforward data retrieval, enabling businesses to effectively use the information and contribute to the overall growth and innovation of the ecosystem.

Beyond these single steps, Vietnam may consider collaboration between government agencies, academia, and industry stakeholders to foster innovation and address data-related challenges along the whole process. By engaging in partnerships and knowledge-sharing initiatives, Vietnam can leverage expertise from different sectors to develop innovative solutions and advance its digital transformation.

Moreover, Vietnam would benefit from prioritizing cybersecurity measures to protect its data infrastructure and ensure the privacy and security of its citizens' data. Implementing robust cybersecurity governance, regular audits, and proactive risk management practices will safeguard data assets and maintain public trust.

Similarly, in the realm of cybersecurity, respect for the individual's right to privacy and ethical considerations are at the heart of this process. While the overarching goal revolves around the openness and usage of governmental data synergies, it is mandatory that it is not used as an umbrella to collect unwarranted and intemperate personal information from citizens (as is the situation in some cases in Singapore). Fundamentally, the process should begin with obtaining informed consent, which serves as a basic mechanism to empower individuals and give them authority over their personal information. Transparent consent mechanisms that facilitate informed decisions would create a climate of trust and foster a sense of not drifting into a state of surveillance. With this comes strict ethical standards, that data is handled in a way that duly recognizes and respects the autonomy and dignity of the individual. In addition, an indispensable aspect of this entire process is the maintenance of a high level of transparency regarding the collection, use and enrichment of data - citizens should always have the right to know which entities hold which data. It is at this juncture that the integration of **Privacy by Design** principles assumes

paramount significance, ensuring that privacy considerations are ingrained from the very inception of this process. The culmination of these efforts contributes to the development of a responsible and reliable foundation for data-driven practices in Vietnam.

In addition, it would be valuable for Vietnam to focus on building a data-driven culture within its government agencies and society at large. This includes promoting data literacy, providing training programs, and encouraging the use of data analytics in decision-making processes. By fostering a data-driven mindset, Vietnam can unlock the full potential of its data assets and drive evidence-based policies and strategies.

Furthermore, it would be an added value throughout the process if the newly formed agency could evaluate the various data sources that collect similar information and create a centralized database that serves as the authoritative "source of truth" for multiple agencies. This approach would eliminate redundant data collection and ensure the accuracy of the information on which all parties can build. Consolidating and centralizing data from disparate sources increases efficiency, minimizes duplication, and maintains data integrity.

Embracing these best practices allows Vietnam to improve its data policy framework, strengthen its data infrastructure, promote data openness, and foster a culture of data-driven innovation. These steps could enable Vietnam to leverage the power of data for sustainable development, improved public services, and contributing to the country's digital transformation. The success of data-driven initiatives in Vietnam depends not only on a determination to ensure transparency and accessibility of data to the public, but also demands consistent focus on safeguarding citizens' rights and maintaining strong data privacy measures throughout these transformative efforts.

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The Author



Bugra Kilinc is currently as Junior Researcher in the Friedrich Naumann Foundation for Freedom Office in Hanoi, Vietnam. He is a former banker, holds a bachelor's degree in Business Administration and Economics from the University of Wuppertal, Germany, and is currently completing a double-degree master's program at the Católica School of Business and Economics in Lisbon and the ESCP Business School in Paris in International Management with a focus on Economics & Public Policy.

During his studies, he completed various internships including a German DAX company's CFO office, a strategy department of a large German e-commerce group, and a German consulting firm where he worked as a management consultant. He also worked several years in a Franco-German e-commerce startup, where he played a key role in the finance department.

At Friedrich Naumann Foundation for Freedom Vietnam office, Mr. Kilinc is particularly involved in fields related to risk management, real estate and bond markets, and sustainable development in developing and emerging markets.

