The Digital Transformation Strategies of the Philippines from 1992 to 2022: A Review

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Research Article

Abstract
The report begins by looking into the different digital transformation strategies of the Philippines from 1992 to 2022 from the different government databases. The study used the qualitative approach particularly the document analysis of public documents. Six strategic plans were reviewed namely: a) National Information Technology Plan for the 21st Century (1997) 1992 – 1998, b) e-Philippines Strategy Government Information Systems Plan (2000) 1998 – 2001, c) Philippine ICT roadmap 2006 – 2010, d) Philippine Digital Strategy of 2011-2016, e) Philippine e-Government Master plan of 2012, and the current f) Philippine digital transformation strategy 2022. The strategic plans focused on the Information and Communications Technology (ICT) infrastructure development, transforming the government’s operations and policies online, direct digital engagement among citizens, ICT policies and laws, and bridging digital gaps. However, the policy developments of the government should recognize the interconnection between, digital literacy, availability of affordable connectivity, and ICT infrastructures.

Keywords: Philippine digital transformation strategy, e-Government, Digital Inclusion, digital literacy.

1. Introduction
Digital technology is continually defining society in the modern world where the digitalization of organizations is moving far from being innovative to becoming part of their core functions (Morisson, 2016). Various nations are shifting for global trends in technology particularly in the government sector (Digital Government Transformation, nd). The digital transformation of governments examines the digital technology ability to fundamentally transform the way the public sector operates and delivers services to the people and offers strategies for government leaders to accelerate the rate of progress. The adoption of digital technology is an evolution of a post-bureaucratic form of society. In the Philippines, the government launched several strategies to address the trend in the 21st century and aims to achieve its vision of the Philippine Government Online thru the Philippine Digital Transformation Strategy (PDTS) (Alampay, 2013). The PDTS picks up from previous efforts to establish an electronic government in the country using development and innovations in information and communications technology. These efforts include the Philippine Digital Strategy of 2011-2016, the Government Information Systems Plan, the Philippine Strategic ICT Roadmap of 2006-2010, and the eGovernment Master Plan of 2012, among others. The Philippines created the Department of Information and
Communications Technology (DICT) that will give focus on the overall goal of establishing a transparent, effective, and citizen-centric e-government. The goal of the PDTS is to engage the citizen genuinely through available communication channels like Facebook, Twitter, and other social media platforms on the internet. These strategies are a development plan aimed at transforming the government into a digital platform providing transparent and accountable governance, efficient operations, direct citizen engagement, and innovation (Philippine Digital Transformation Strategy 2022, 2019).

According to the report of the DICT, the E-Government Master Plan of 2012 laid the foundation for the government to pursue its goal of improving the way it provides services and how it interacts with the general public through the use of ICT. It built the infrastructure and integrated the whole of the government by providing connectivity, harmonizing information systems, and promoting interoperability. With these, the country was able to gain some grip in terms of online services and human capital development. According to the United Nations (UN) e-Government Survey of 2018, the Philippines jumped 48 steps in e-participation, from 67th place in 2014 to 19th in 2018. However, in the overall e-government development ranking, the country slipped four steps from 71st in 2014 to 75th in 2018 because of low telecommunication infrastructures (UN e-Government Survey, 2018).

The current PDTS developed aimed at implementing the e-government programs successfully as it focuses on the next stage of digital transformation. It is also designed to address problems encountered in the previous years such as lack of organizational structure and sound strategic plan on onboarding, low awareness of DICT’s services and functions, inadequate change management initiatives, and scarcity of funds. Thus, this paper looked into the digital transformation strategies of the Philippines from 1992 to the 2022 plan and discussed the primary focus of the different strategies of the country.

2. Methodology

This study used the qualitative approach particularly the document analysis of public documents (Corbin & Strauss, 2008). The design was utilized since this study examined and interpreted the data to gain understanding and empirical knowledge on the strategies of the government to digital transformation. According to Bowen (2009), document analysis includes analysis of press releases, program proposals, institutional reports, and several public records. This study reviewed the different digital transformation strategies of the Philippines from 1992 to 2022 from the different databases of the government (see table 1). The list of digital transformation strategies of the country was adopted from egov4women.unescapsdd.org (2018) and dict.gov.ph (nd). The documents should be the official report of the government and accessed only on government websites.

| No | Website                                                                 | Title                                                                 |
|----|------------------------------------------------------------------------|----------------------------------------------------------------------|
| 1  | http://www.ombudsman.gov.ph/UNDP4/wp-content/uploads/2013/01/IT21.pdf | National Information Technology Plan for the 21st Century (1997) 1992 – 1998 |
| 2  | http://www.ncc.gov.ph/files/gisp.pdf                                  | e-Philippines Strategy Government Information Systems Plan (2000) 1998 – 2001 |
| 3  | http://dict.gov.ph/ictstatistics/wp-content/uploads/resources/Philippine-ICT-Roadmap-2006-2010.pdf | Philippine ICT roadmap 2006 – 2010                                  |
| 4  | http://www.ncc.gov.ph/files/PDS.pdf                                   | Philippine Digital Strategy of 2011-2016                             |
| 5  | https://www.dbm.gov.ph/wp-content/uploads/MITHI/Philippines%20E-GovMasterPlan_%28final%20draft%29.pdf | Philippine e-Government Master plan of 2012                          |
| 6  | https://www.gov.ph/web/national-government-portal-project/philippine-digital-transformation-strategy | Philippine Digital Transformation Strategy 2022                       |
3. Results and Discussions

3.1 National Information Technology Plan for the 21st Century (1997) 1992 – 1998
The Philippines has adopted a strategy that envisions bringing the country to a work fast, setting higher goals, making the society and the economy stronger. The strategic plan developed the country into different phases. The strategy relies on the government and private industry who played lead roles in the realization of Information Technology (IT) in the country. The role of the government in IT development is to provide the national information infrastructure and the policy, leading-edge IT applications will be implemented, and the government will lead the key IT projects for participation and implementation by businesses, academes, the science and technology community, and the civil society.

According to the information technology plan, the country will lead the infrastructure for every business, government agency, academic institutions, and every home in the country to have access to technology by the year 2000. This is by providing the policy environment, enhancing the physical infrastructures, develop the IT manpower base, IT industry development, institutional reforms, and marketing the national IT plan for the 21st century. By the year 2005, it was expected that the companies in the country will produce IT products that will compete in the world market. Also, the information technology plan of 1997 was envisioned to be the knowledge center in Asia by the first decade of the 21st century.

3.2 e-Philippines Strategy Government Information Systems Plan (2000) 1998 – 2001
In connection to the previous ICT development objectives, the government information system plan crafted by the National Information Technology Council (NITC) enables policy and institutional infrastructure and environment including the direction, priorities, and benchmarks for the computerization of core government processes over the next five to ten years. It aimed to fully harness the potential of ICT for good governance and promote transparency in government operations and transactions in the country. The plan involved the methodology used in the identification of the various information systems and identifying the information system gaps in government and appropriate technology solutions.

3.3 Philippine ICT roadmap 2006 – 2010
This strategic roadmap aims to provide a framework for the year 2006 to 2010, which will help to provide overall policy direction while rationalizing policy decisions and choices on ICT. It envisioned to create a wider awareness and appreciation for ICT; identify key initiatives to rally all stakeholders and encourage them to undertake initiatives that complement the short and medium-term ICT development plans of government; provide investment opportunities; layout sustainable strategies for the future development of ICTs; provide the private sector with a reliable frame of reference to heighten their action planning for the future, and increase coordination in implementing ICT programs and achieving the desired impact and outcomes.

Crafted by the Commission on Information and Communications Technology (CICT), this strategic roadmap envisioned that it will create a people-centered, inclusive, and development-oriented information society that promotes sustainable development and improves the quality of life for all. This strategy is also a part of the declaration of the belief of the country on ICT as an important tool for economic growth and development. Moreover, it is also by empowering the nation and its citizens as individuals.

Several projects and initiatives were implemented such as ensuring universal access to ICT like developing the Community e-Center Program (CeC) where they consider will address the digital divide among citizens by partnering with private sectors, local governments, and civil society stakeholders to establish various community – based options for telecommunications and internet access. Various training, specifically adapted to particular needs are also provided to ensure the sustainability and effective operations management of the centers. Others are
the Internet in Schools (iSchools) project which aims to provide public high schools with computers with broadband internet connectivity complemented by educator’s training, tech support, and monitoring and evaluation. This is manifested in the report of Business World (2019) as cited by Treceñe and Abides (2020) that the Philippines lead the global ranking as the most country that spends most of the time on the internet. Also, eCare centers were designed to provide access and training programs for Persons with Disabilities; eLGU CeCs enabled local government units to deliver services more efficiently while providing their respective people access to the internet; Regional ICT Centers will spur regional development through the use of ICT in education. The use of ICT in education was seen to be advantageous as it will enhance the learning environment of the students that the technology provides in the school (Treceñe, 2019). Other developments in e-commerce, and governance; PC ng Bayan are initiatives to provide low-cost computers to the Filipino people, and the National Broadband Plan as the provision of adequate bandwidth for ICT development.

Other initiatives of the strategic roadmap are developing human capital for sustainable human development where they focused on investing in human capital such as developing the ICT competency standards, ICT for Education that aims to encourage the education sector to incorporate the ICT in education as well as determining and gaining access to the infrastructures necessary to use and deploy learning technologies at all educational levels. Additionally, using ICT to promote efficiency and transparency in government was one of the main initiatives of the roadmap. This will help the Philippine government to be more efficient and responsive in delivering its services to the people. Moreover, the continued rise of the ICT sector in the Philippines was largely dependent on the initiatives and necessary resources that will help sustain its competitiveness. The strategic ICT roadmap of 2006 sought to enhance business competitiveness in the global markets through strategic business development and integrating the use of ICT.

As part of the continued growth of the Philippine economy to promote ICT, the roadmap proposed the creation of the Department of Information and Communications Technology (DICT) that will ensure effective coordination and implementation of the national ICT agenda. Part of it was transforming the National Telecommunication Commission (NTC) into a politically independent regulatory body, passing a Republic Act on privacy and data protection, cybercrime bill, and the freedom of information law.

3.4 Philippine Digital Strategy of 2011-2016
The Philippine Digital Strategy (PDS) for 2011 to 2016 was crafted by the Commission on Information and Communications Technology based on the predecessor strategic roadmap. The PDS was larger in scope compared to the previous ICT roadmap, it recognized that ICT increasingly permeates all parts of the economy and society, both globally as well as in the country. There is hardly a part of society and the economy that is not touched by ICT, either directly or indirectly. ICT is an enabling tool, a critical infrastructure like transportation, water, and electricity. The PDS looked at how ICT can make a difference in key areas such as government and governance, in education, the economy, employment, and the industries and small businesses; and how it can be used for national development, empowering citizens, fighting corruption, and poverty, and transforming government. This strategy aimed to show how ICT can help fulfill the priorities of the government.

This Strategy presented a renewed vision for ICT and its use in transforming the Philippine Society into a competitive force in the digital economy in the year 2016. Development of the strategy was an inclusive process involving a broad spectrum of stakeholders including government at all levels, private industry, and civil society, and incorporating best practices in the use of ICT by other countries.
This PDS was a blueprint on how the country and its people can benefit from the use of ICT in governance, the economy, and improving one’s way of life. The digital strategy focused on the transparency of the government and efficiency of the services delivery, creating internet opportunities for all as it ensures that the Philippines has inclusive growth and helps eradicate poverty. Investing in the digital literacy of the people aimed to increase digital literacy in the country, and establishing the ICT industry and business innovation for national development.

3.5 Philippine e-Government Master plan of 2012

With the several efforts of the government to reinvigorate e-Government such as the National Information Technology Plan for the 21st Century in 1997, to the previous digital strategy of 2011 – 2016, the government released the Philippine e-Government Master Plan of 2012 to address the crippled growth of e-Government such as its policy-making and implementation of policies. The master plan aimed to draw a bigger picture of e-Government. A master plan that was achievable for four years as it allows the government to better respond to the economic and climate changes, and also to introduce innovations within the government system that will promote efficiency and allow more citizen engagement in the decision-making process of the public sector.

The master plan prioritized 15 projects such as strengthening e-Government security, development of an electronic document and archiving system, government portal, enhancement of government information network, establishing the e-Community center, national disaster, and safety management system, automation of business activities, IT governance development, creation of government integrated data center, construction of the national database, government for the foreign system, the WORK NET, government e-Procurement Services, electronic agriculture systems, and the government enterprise architecture.

3.6 Philippine digital transformation strategy 2022

The Philippine Digital Transformation Strategy of 2022 (PDTS 2022) was created with the Department of Information and Communications Technology (DICT) aim of making the digital transformation of the country into the next level. The PDTS 2022 was based on the 2015 ASEAN ICT Master Plan of 2015 (AIM 2015) where it is anchored on the three pillars and foundations, namely the economic transformation, people engagement, and innovation, and the foundations are infrastructures development, human capital development, bridging the digital divide. The underlying motivation formed part of the Philippine Digital Transformation Strategy which developed to prioritize the national interest of the country while remaining responsive to the ASEAN economic agenda.

Moving forward, the governments enabling programs focused on the digital transformation for transparency and accountability in governance, efficiency, and dexterity in the operations, direct citizen engagement, and a platform for innovation. Moreover, the digital transformation strategy also dubbed as the e-government 2.0 where it focuses on the inclusions of features of government systems like the social web, user-generated content, the delivery and use of open data, and network effects through more user engagement (Boughzala, Janssen & Assar, 2015 as cited by DICT, 2019). The e-government 2.0 aimed at achieving genuine citizen engagement institutionalizing closed-loop, multi-dimensional, and multidirectional communication channels.

Part of the transformation strategy is its ability to execute the plan from paper to the realization of its full potential. It is encouraged that the government must consider prioritizing policies that enhance the executability of the digital transformation strategy.
4. Conclusion and Recommendations

With the digital transformation strategies of the Philippines having been explored from 1992 to 2022, it can be inferred that the country made efforts for the development of the ICT. As seen in the different strategies, the country focused on the internet infrastructures from business, academies, the science and technology community, and the civil society. Another focus was the transformation of the government’s processes and transactions online for transparency and accountability in governance. The country also envisioned digital inclusivity among citizens where programs for direct citizen engagement on ICT was also part of their plans. The government should take part in enhancing women’s representation in the decision-making structures in the government by incorporating gender perspectives and encouraging women in the marginalized sector to participate in the policy development process with regards to ICT. The government should also focus on strengthening digital inclusion, particularly to the marginalized sector in the community where access to e-government services is difficult. It is also important to allocate an adequate budget to local levels particularly in public school systems on the implementation of digital literacy initiatives. Public schools are a great avenue and an important strategy in building the digital literacy of the population. The policy development should recognize the interconnections between, digital literacy, availability of affordable connectivity, and ICT infrastructures. Further, the sustainability of the programs implemented by the government should be addressed.

Conflict of interest: The author declares no conflict of interest.

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