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# SOUTHEAST PROVINCES AND CITIES IN DIGITAL GOVERNMENT BUILDING: ROLES OF LOCAL YOUTH UNION OFFICIALS (CASE STUDY IN HO CHI MINH CITY, BINH DUONG AND DONG NAI PROVINCES)

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## ABSTRACT

*Aimed at integration and development, digital transformation for digital government building is an indispensable process in the context of the fourth industrial revolution, when artificial intelligence and cloud computing are getting more and more familiar to humankind. Consequently, a national digital transformation programme has been carried out actively by Central and local institutions in all cities/provinces and certain achievements have been gained. Based on data of the survey in Southeast provinces, this paper outlines the results of the digital government building in local areas, highlighting roles of young officials - an important factor participating directly in local digital government building. Finally, some recommendations are suggested to promote the roles of Youth Union officials as the spearhead towards the success of the digital government building and the national digital transformation programme.*

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**KEYWORDS:** Southeast, Vietnam, digital government, Youth Union, officials.

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## 1. INTRODUCTION

Southeast Vietnam is a densely populated region with a high economic growth rate. Ho Chi Minh City and three Southeast provinces, including Binh Duong, Dong Nai and Ba Ria – Vung Tau, constitute a focal economic rectangle that plays a decisive role in socio-economic development of the whole country. Having carried out digital transformation for digital government building, Southeast Vietnam has witnessed an obvious shift, accelerated the National Digital Transformation Programme and contributing significantly to both local and national socio-economic development. As the subject of the process, local officials, civil servants and employees in the State institutions have contributed directly to the digital government building. Based on secondary and primary data, this paper outlines the digital government building in Ho Chi Minh City, Binh Duong and Dong Nai provinces and analyses the role of the officials who are responsible for activities of the Ho Chi Minh Communist Youth Union (hereafter referred to as the Youth Union); they are young civil servants who plays a key role in carrying out digital

transformation for local digital government building. Finally, some recommendations are suggested to promote the role of the Youth Union officials as the “strike force” in digital transformation for digital government building in Ho Chi Minh City, Binh Duong and Dong Nai provinces.

## 2. DATA AND RESEARCH METHODS

This paper is written on the basis of local data and reports as well as results of the survey carried out with questionnaires and in-depth interviews from July to October 2023<sup>(1)</sup>. The survey respondents are 360 Youth Union officials under the administration of Ho Chi Minh City Municipal Youth Union, Binh Duong Provincial Youth Union and Dong Nai Provincial Youth Union. Of all the respondents, 49.7% are female (179 officials) and the rest 50.3% are male (181 officials) (Table 1). Sampling is classified conveniently by administrative levels (53.6% of the respondents at the ward/commune level; 34.7% at the district level; and, 11.7% at the provincial/city level). The age of the respondents ranges from 21 to 39 and the seniority varies between 1 and 16 years.

*Table 1: Gender of respondents by survey location.*

	Ho Chi minh City		Binh Duong		Dong Nai		Total	
	n	%	n	%	n	%	n	%
Male	60	50.0	51	42.5	70	58.3	181	50.3
Female	60	50.0	69	57.5	50	41.7	179	49.7
Total	120	100.0	120	100.0	120	100.0	360	100.0

Source: Survey in 2023.

Based on the Role Theory and the three pillars of the Digital Transformation Index at the provincial level (Decision No.922/QĐ-BTTTT of the Ministry of Information and Communications on May 20, 2022), the survey focused on the role of Youth Union officials as advisers/participants in various stages of the local digital transformation programme, including: making plans, organizing activities, and ensuring the information security. A Likert scale is used with five categories (1: Very low; 2: Low; 3: Average; 4: High; 5: Very high) so as to measure the extent of the respondent's participation. At the same time, 30 in-depth interviews were conducted with Youth Union officials in the three locations; 10 respondents were selected randomly in each location.

## 3. HO CHI MINH CITY, BINH DUONG AND DONG NAI IMPLEMENT DIGITAL TRANSFORMATION FOR DIGITAL GOVERNMENT BUILDING

Ho Chi Minh City, Binh Duong and Dong Nai provinces have an important economic, geographical and political position in Southeast Vietnam. In the

context of the national digital transformation, the three city/provinces play a significant role in designing strategies and implementing activities appropriately, aimed to build local digital governments and achieve the goal of the national digital transformation.

### *Digital transformation for digital government building in Ho Chi Minh City*

Implementing “the National Digital Transformation Programme until 2025 with orientation to 2030”, Ho Chi Minh City has its strategy with a set of comprehensive measures (relating to digital awareness, digital transformation policy, digital infrastructural development, digital database, digital government building, and information security) (Ho Chi Minh City Department of Information and Communications, 2024).

Regarding the enhancement of the awareness of digital transformation, digital government building and digital human resource development, apart from propagandising and disseminating information (by holding conferences, workshops, exhibitions,

communications, competitions and a series of activities in response to the National Digital Transformation Day), Ho Chi Minh City focused on digital human resource training (45 training classes on digital transformation were held for more than 2,000 civil servants and officials; a large number of activities as well as digital transformation training courses were carried out within the framework of the Project No.06<sup>(2)</sup>).

*Regarding the digital transformation regulations and policy*, Ho Chi Minh City promulgated programmes and action plans, based on the national programme and the City particularities. It built a set of key performance indicators to measure digital transformation progress. A digital transformation centre was also established...

*Regarding the digital infrastructure*, Ho Chi Minh City has been executing a digital infrastructure development plan for the period from 2020 to 2030 and carrying out a project titled "Telecommunications and Digital Infrastructure Development Plan in Ho Chi Minh City for the 2020 - 2030 Period". At present, the data centre and the cloud computing infrastructure have been sufficient enough to ensure capacity, resources and security for the entire information system of the digital government. The broadband network enables thorough linkages between the City People's Committee and its departments, sectors, districts and wards/communes as well as corporations and subdivisions; the information technology infrastructure satisfies requirements of all State institutions at the city and district levels; there is broadband in every commune/ward; 3G and 4G based transceiver stations of sufficient quality cover the entire area of the city. At the same time, the city is developing the Internet of Things (IoT) infrastructure; more than 10,000 smart street surveillance cameras are operated for transport and public security; the IoT applications are used for climate and environmental management; and, programmes that provide free mobile phones for poor people are deployed, based on voluntary contributions.

*Regarding the development of digital data*, the City has been carrying out a data governance strategy, focusing on three categories of data, including: the demographic data; the administrative, residential, medical, educational and social security data; and, the financial and business data. An open portal is set up (<https://data.hochiminhcity.gov.vn>), aimed to share data between city departments, sectors, and district agencies. There are various types of data such as electronic documents, information of enterprises

and business households, secured transaction information, land-use and house-ownership registration information, health care facilities, medical practicing licenses, educational establishments, educational services, projects of foreign investment, projects of public investment, and market prices of some essential commodities. At the same time, the City e-government structure has been continuously updated; the digital platform used to serve digitalization, management, and archiving of the city institutions will be operated initially in the first quarter of 2024.

*Regarding the digital government building*, Ho Chi Minh City has been improving IT applications and services to do management and provide guidance for State institutions, enterprises and people. According to a report of the City Department of Information and Communications (2024), the linkage between the system of specialized information and the institutions that are responsible for handling administrative procedures is improved and will be completed in the first quarter of 2024; the portals providing online public services of the city institutions are merged into an unique portal for administrative procedures; the map of institutional implementation (<https://bandotheche.hochiminhcity.gov.vn/>) is being set up to provide openly results of the administrative procedure handling and public services of the district people's committees.

*Regarding the cyber security*, Ho Chi Minh City tries to ensure information security by deploying a four-layered model of security and connecting the City database with the national supervisory system; the malware protection system has been upgraded for 12,461 terminals of 69 institutions in the City.

In 2022, Ho Chi Minh City was ranked 54<sup>th</sup> among 147 cities in the world, according to the e-government ranking made by the United Nations. It is one of five top provinces/cities and its ranking has been successively improved in terms of the digital transformation index (Ho Chi Minh City People's Committee, 2023).

### ***Digital transformation for digital government building in Binh Duong Province***

In order to deploy and promote digital transformation, Binh Duong Provincial People's Committee has promulgated many decisions and plans (more than 11 documents), aimed to realise digital transformation in practice for the past years.

*Regarding the infrastructural investment, digital platforms and information security*, the provincial government has invested in digital infrastructure,

making the network of optical fibre cable cover the entire area of the province, including communes and hamlets. At present, 100% of communes can use the specialised network of data transmission; there are 3,666 4G Base Transceiver Stations with 4 million subscribers (there are 3.2 million subscribers, accounting for 85.45%, retrieving data; this figure is ranked 5<sup>th</sup> in the country). Binh Duong Province has set up a Data Centre with 7 platforms used to provide service for digital transformation and smart urban areas. A supervisory centre was established to link data with three Central ministries/sectors, 17 provincial departments (among 18 ones) and 4 vertical institutions (among 6 ones) located in the province. There are 15 groups of indexes updated daily, weekly or monthly and 12 groups of indexes updated quarterly or yearly. Intelligent Orientation Control (IOC) has been implemented in all 9 districts. All 81 communes have been empowered to use data of the Intelligent Orientation Control. The Binh Duong digital government application has been used in practice; a portal of open data has been set up; and, a catalogue of open data has been released. Meanwhile, the Certified Ethical Hacker (version 12) training was held for 59 members of the provincial team dealing with problems relating to information security; 12 training courses on digital transformation were held by the Ministry of Information and Communications for various institutions and establishments in the province; 10 proposals on information security were appraised and licensed (Binh Duong Provincial Department of Information and Communications, 2024).

*Regarding the development of information technology applications and services aimed to serve the direction and guidance of the State institutions*, 100% of administrative procedures have been handled in the cyber environment; 1.2 million residents have activated their own level-2 eID accounts; data of 931,000 ones have been digitalized according to Project 06 (Development application of population database, e-identification and e-authentication for national digital transformation in the 2022-2025 period with a vision to 2030); 70% of all social security beneficiaries (30,674 persons) get the pay in their bank accounts. The provincial system of administrative information provides 1,352 procedures (out of all 1,886 ones) online. The proportion of online documents has amounted to 76% and that of e-Forms has increased to 62%. Some smart urban targets have been realised in practice together with socio-economic goals proposed in the Resolution of the Provincial Congress of the Communist Party (Binh Duong Provincial People's Committee, 2023).

According to a recent report of the Binh Duong Provincial Department of Information and Communications (2024), a set of indexes of the provincial digital transformation has been designed; the architectural framework of the provincial e-government (version 3.0) has been promulgated, aimed to build successfully the digital government; and, Office 365 has been used. The province has upgraded the archiving system of the Provincial Data Centre; the deployment of eID accounts has been accomplished; e-Forms have been designed and uploaded to the portal of administrative procedures, matching the portal of the National Public Service; and, a pilot project on authentication of electronic copies has been applied to the portal of administrative procedures.

### ***Digital transformation for digital government building in Dong Nai Province***

As reported by the Dong Nai Provincial Committee of the Communist Party about the process of digital transformation, Dong Nai Province carried out a strategy for local digital government building by the end of 2003, focusing on development of digital infrastructure, information security, and digital government building from the grass-roots level.

*Regarding digital infrastructure*, the network of optical fibre cables providing telecommunication broadband has covered 100% of hamlets/residential quarters in the province, satisfying the demand for the high-speed internet among people in hamlets, schools, hospitals, and community centres all over the province. In regard to the mobile telecommunication, there are 3,520 3G/4G/5G based transceiver stations covering all residential areas to serve communication of people and local governments as well as local socio-economic activities. The internet broadband spreads to all communes and districts. In the province, about 86% of people have smart phones.

*Regarding the development of digital data*, the catalogue of open database was released by the Decision No. 901/QĐ-UBND dated April 13, 2022. Consequently, the data of citizens relating to the permanent residence registration (collected from 3,103,499 out of 3,118,174 residents), land use, and jobs were set up and initially used for public services; at the same time, GIS-based data about infrastructure such as land, construction and transport were also built.

*Regarding the development of digital platform*, the province has completed a local government service platform (LGSP) in accordance with the standards of

the Ministry of Information and Communications, linked to the National Government Service Platform (NGSP). Meanwhile, the provincial reporting information system has been linked to the Government reporting information system; the Provincial Intelligent Operations Centre (IOC) has been established; the Provincial Document Management and Operations System has been linked to the Document Management and Operations System of the Government Office; data have been shared between the provincial public service portal and the national public service portal; the VNPT-iGate has been run for the provincial services; relevant techniques have been reviewed and improved to connect, integrate and share data according to the guidance of ministries and the Provincial People's Committee.

At the same time, the province carried out a pilot application titled "*Đông Nai CDS*" (Dong Nai Digital Transformation) according to the Plan No.137/KH-UBND dated June 13, 2022. The application with two versions was uploaded to AppStore and Google Play and enabled data connection between 12 provincial institutions and 6 Central ones. Of the two versions, one is used for individuals, providing information on

house-renting, promotion, catering, tourism, entertainment, employment, electricity and water bills, classified ads, bus lines and timetables, social insurance, news, public services, and feedback; the other is used for enterprises, providing information on public services, enterprises' forum, and products... The application was officially accepted on March 20, 2023.

Regarding the cyber security, the Provincial People's Committee requested the Provincial Department of Information and Communications to collaborate with the Provincial Police and departments of the Ministry of Public Security, including the Department of Cyber Security and Hi-tech Crime Prevention (A05), the Department of Professional Technology (A06), and the Police Department for administrative management of social order (C06), in inspecting and evaluating the cyber security and information safety of the Provincial Portal of Administrative Procedures so as to serve the connection and exploitation of the national population database, aimed to ensure information security (4 layers) according to the Prime Minister's Instruction No. 14/CT-TTg dated June 17, 2019. (Dong Nai Provincial Committee Communist Party, 2023)

**Table 2: Rankings of Ho Chi Minh City, Binh Duong and Dong Nai by digital transformation in 2022.**

Digital Transformation Index (DTI)	HCM City	Binh Duong	Dong Nai
Digital awareness	35	1	44
Digital institution	1	15	35
Digital infrastructure	1	9	17
Digital human resources	25	9	42
Cyber security	17	41	33
Digital transformation	2	22	43
Digital government	2	8	45

Source: Data retrieved on February 27, 2024<sup>(3)</sup>.

According to the National Digital Transformation Index (DTI) ranking in 2022, Ho Chi Minh City, Binh Duong and Dong Nai were ranked second, 22<sup>nd</sup> and 43<sup>rd</sup> respectively (Table 2). Ho Chi Minh City was one of the top among 61 cities/provinces, far better than Binh Duong and Dong Nai province.

#### **4. YOUTH UNION OFFICIALS IN DIGITAL GOVERNMENT BUILDING IN HO CHI MINH CITY, BINH DUONG AND DONG NAI**

##### **4.1. Youth Union officials take part in digital transformation for digital government building**

Digital transformation is closely attached to information technology and digital thinking. Young people have particular advantage in the 4<sup>th</sup> industrial revolution, owing to their capacity of applying and operating the digital governance. In our survey, local

officials, who are in charge of running activities of the Youth Union in Ho Chi Minh City, Binh Duong and Dong Nai provinces, are young, enthusiastic and get used quickly to information technology. They are considered to spearhead the local digital transformation. Figure 1 shows that the proportion of Youth Union officials, who took part directly in digital government building due to working positions, ranges between 68% and 82%. The most common activity is "to organise online meetings" (82%), followed by "to set up a web portal and online application processing" (80%); whereas, the least common are activities relating to the State budget spending (68%). The proportion of local officials participating in deploying supervisory platforms and virtual assistants AI applications is quite low, varying between 69% and 73% (Figure 1), because those activities require high qualifications of information technology and artificial intelligence.

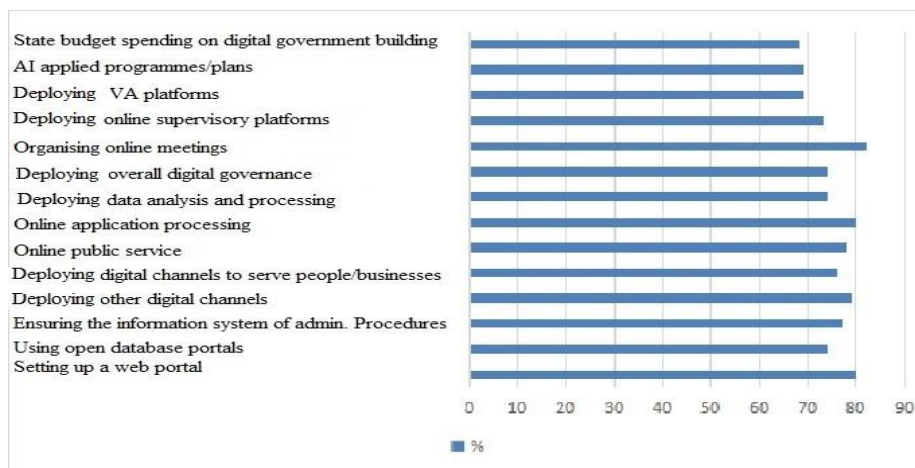


Figure 1: Proportions of Youth Union officials participating in digital government building activities. Source: Survey in 2023.

The survey findings demonstrate that most Youth Union officials (98.6%) have experienced digital transformation training, despite different working positions related directly or indirectly to digital transformation; thus, they have certain understanding of digital transformation, the necessity of digital transformation and digital government building as well as relevant knowledge and skills (87.2%).

**4.2. The extent to which Youth Union officials take part in digital government building**

According to the survey findings (Table 3), it is very common that the extent to which Youth Union officials take part in digital government building varies from “average” to “very high” and the proportion of participation ranges from 84.8% to 91.9%. The proportion is the highest for “Deploying other digital channels” (91.9%), “Ensuring the

information of administrative procedures” (91.7%), and “Deploying digital channels to serve people/businesses” (91.3%), followed by the proportions of “Deploying data analysis and processing” (89.6%) and “Organising online meetings” (89.2%). Ranging from 87.6% to 88.8% are the proportions of “Deploying overall digital governance” (88.8%), “Using open database portals” (88.7%), “Online public service” (88.2%), “Online application processing” (87.9%), “Setting up a web portal” and “State budget spending on digital government building” (87.8%), “AI applied programmes/plans” (87.6%); meanwhile, the lowest are the proportions of “Deploying online supervisory platforms” (86.2%) and “Deploying VA platforms” (84.8%). For most activities, the extent of participation is the highest for “average”, ranging from 35% to 45%, and becomes lower for “very low” and “very high”.

Table 3: Extent to which Youth Union officials take part in digital government building.

No.	Activity	Average		High		Very high		Average extent (from Average to Very high)		Grand Total
		n	%	n	%	n	%	n	%	
1	Setting up a web portal	115	40	91	32	46	16	252	88	287
2	Using open database portals	103	39	84	32	49	18	236	89	266
3	Ensuring the information system of administrative procedures	106	38	98	36	49	18	253	92	276
4	Deploying other digital channels	128	45	86	30	47	17	261	92	284
5	Deploying digital channels to serve people/businesses	116	42	90	33	45	16	251	91	275
6	Online public service	97	35	92	33	58	21	247	89	280
7	Online application processing	127	44	85	29	42	15	254	88	289
8	Deploying data analysis and processing	119	44	85	32	36	13	240	89	268
9	Deploying overall digital governance	111	41	87	32	40	15	238	88	268
10	Organising online meeting platforms	123	42	86	29	54	18	263	89	295
11	Deploying online supervisory platforms	96	37	82	31	47	18	225	86	261
12	Deploying VA platforms	89	36	72	29	51	20	212	85	250
13	AI applied programmes/plans	97	39	73	29	48	19	218	87	249
14	State budget spending on digital government building	103	42	62	25	50	20	215	87	245

Source: Survey in 2023.

Besides taking part in activities of digital transformation and digital government building on the basis of working positions, Youth Union officials also play an active role in digital transformation relating to other activities of mass organisations such as political education, movements (culture, arts, and sports), social work and community development. The community technological team is a typical model that shows the role of Youth Union officials in helping local residents participate in building digital governments, digital economies and digital societies. Data of our survey demonstrate that among the Youth Union official, who take part in digital government building to an average or higher extent, those who provides training in digital skills for local residents make up 82.2%; those who instruct local people in accessing and using digital services such as online public services, e-commerce platforms, e-payment, and applications on mobile devices – 86.9%; and, those who provide training in information security – 80.2%. At the same time, Youth Union officials take part in providing training in digital knowledge and skills for teenagers and young people, holding competitions, organizing activities aimed to enhance young people’s awareness of digital transformation (90.6%), creativity and innovation (82.8%), and information security (84.2%).

Based on in-depth interviews of the survey, we realise that the extent to which an official take part in digital government building depends on his/her working position as well as ability and skills. Almost all of them acquire common technological knowledge quickly; however, it is necessary for them to take professional training in information technology so as to undertake assignments relating to digital governance and AI applied programmes/plans.

A female official who has been working for the Youth Union for 7 years and is now in charge of the

provincial one-stop-shop division revealed: “in addition to the legal framework, equipment and the determination of leaders, the officials who have digital knowledge and skills play a very important role. At present, we are using digital applications to serve people; we can do it, but have not been skilful yet. I myself have not been able to do it fluently. There are community teams giving instructions to people; thus, the submission of documents and the return of results (based on the file codes) can be done online. We are young; the youngest was born in 1999. In my opinion, the greatest difficulty is related to our competence, as legal framework or machines are made by human; it is important that we have skills in information technology and the key positions should be filled by those who have been trained professionally” (In-depth interview, CV03).

Playing the key role in digital transformation and digital government building, Youth Union officials of the three locations in our survey are aware of the national strategy and make every effort to accomplish tasks. Most of the survey respondents assume that digital transformation and digital government building will bring much benefit, but there are considerable challenges (Figure 2).

According to data of the survey in 2023, over 50% of respondents suppose that the technological infrastructure of institutions/establishments has not satisfied fully requirements of digital transformation; 46.9% of respondents assume that digital human resources (digital knowledge and skills of officials, staff and local residents) are limited; the same proportion of respondents (46.9%) assume there are not many local residents who have digital devices (computers, laptops, and smart phones...). These are the very challenges to the local digital transformation and digital government building. Meanwhile, Youth Union officials do not get satisfying salaries (48.3% of respondents), while they have to undertake a heavy workload (43.9%).

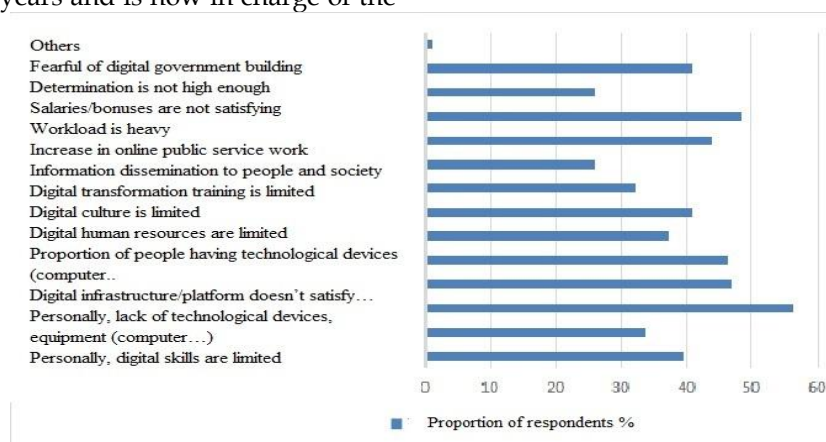


Figure 2: Barriers to digital transformation for digital government building. Source: Survey in 2023.

The survey findings are proved again by our in-depth interviews. *“Digital transformation helps to do work faster; announcements or meetings can be held online; when we need feedback on something, we can email others to collect opinions. Documents can be submitted online... Leaders of our institution can use information technology better. In the past, leaders mainly read documents in paper. At present, we submit both soft and hard copies of documents. First, we send a file to our leader. After the file is reviewed and approved by the leader, we submit the final version in paper... I realise that the use of e-signatures makes it convenient, but also causes risks, especially when we are in a hurry. In our institution, information technology has not been used widely; some can use it, but some cannot. Although the province has invested much in equipment, we have to borrow devices (from technological companies); and, we have to call people from the companies to come for maintenance or repair. In terms of local people, they have difficulty in digital transformation, more specifically, when they find it difficult to enter data (at level 2); many of them have smart phones, but haven't got used to follow steps. Thus, it is necessary to provide them with service (for example, an internet café), as there is not specialized staff to serve local residents in communes. Regarding the Internet, it is quite good at our institution; we can accomplish more work and faster”* (In-depth interview of a male official, CV04).

*“In our institution, we mainly send documents and share information via email, Zalo and other applications; we also hold meetings, collect votes and discuss work online; we interact with each other via a common platform such as a Google drive by creating a virtual hard disk, which everyone can access... For digital transformation, it is important to have digital human resources. Everyone took training, but they have not adapted to digital transformation well. In terms of equipment, the hardware is not good enough; the computers have been used for many years; the Local Area Network is bad, making it inconvenient to handle work online. When digital transformation is deployed, people encounter difficulty as they have not been used to it. Thus, we have to carry out propaganda at the same time with “creating an environment” so that people can experience and build a habit of using it; when they find it convenient, they will do it. Regarding the digital applications, the Youth Union has its own application and other institutions also have their applications; there are too many applications so it is sometimes really hard to decide which one should be used... When technology is applied to work, we can make adjustments easily. When an application is simple and effective, we will continue using it”* (In-depth interview of a male official who is in charge of campaign activities).

## 5. DISCUSSION AND RECOMMENDATION

Based on the reports of Ho Chi Minh City, Binh Duong and Dong Nai provinces, we realise that

digital transformation has been implemented vigorously in those areas and initial achievements have been gained, resulting in socio-economic changes in the context of the 4th industrial revolution. Young officials who work in communes/wards or districts play a significant role in this process; they are the spearhead in deploying digital transformation, helping to achieve success in application of information technology and artificial intelligence. As the core factor taking part in local digital transformation and digital government building, Youth Union officials undertake different tasks in their institutions. Carrying out a heavy workload with various tasks that can be accomplished directly online or offline, they have tried to improve information technology skills. It is therefore necessary for local governments to pay more attention to them so as to have a “key” digital human resource of high quality. According to our in-depth interviews, many respondents suppose that it is essential to upgrade and invest in digital infrastructure such as the Internet broadband, computers, and smart phones... At the same time, local leaders should build strategies and carry out deployment with high determination; information security must be recognised and guaranteed; “digital citizens” are in the process of approaching and applying digital services so they need appropriate conditions and environments to get used and adapt themselves.

Consequently, the following recommendations are suggested in this paper:

(i) Digital government can be successfully built, only when the subject (including the State and the people) has skills and takes part in digital transformation. Thus, it is necessary to provide training in digital skills for leaders, officials and local people, in order to improve the quality of digital human resources. Training courses should be designed differently, depending on specific types of trainees. For local people particularly, in addition to support provided by community teams and online instructions, other forms of “socialisation” and services should be developed, making it easier to use applications of information technology.

(ii) Particular mechanisms and policies must be imposed on “digital officials”. It is necessary to encourage digital human resources, especially officials who directly participate in digital government building, as they are pioneers in digital transformation and digital government building. Salaries and bonuses should be appropriate, making Youth Union officials throw themselves wholeheartedly into their work, especially in the

current context of high employment competition of the market economy. Besides, it is important to encourage and commend good examples so as to emulate the application of information technology and digital transformation in institutions.

(iii) It is essential to continue investment in digital infrastructure to build local and national digital platforms. Apart from the State budget, local governments should mobilise resources from people and give a top priority to digital transformation. In addition to the upgradation of information technological equipment, it is significant to carry out research and cooperation with institutions and enterprises to build digital platforms for operation of the State apparatus in local areas.

(iv) It is necessary to disseminate the necessity, knowledge and skills of digital transformation widely to all people via broadcasting channels, newspapers and the Internet so that local people not only know how to apply information technology to production and trade to earn extra income but also avoid risks and become civilised in the Internet environment.

(v) It is important to provide digital culture for

students. They should be trained formally at school and home, as they will be a future digital human resource. Educational programmes should equip people of young generations with not only technological knowledge and skills but also information technology culture.

## 6. CONCLUSIONS

The officials who are in charge of Youth Union work in Ho Chi Minh City, Binh Duong Province and Dong Nai Province are the key factor playing an important role in giving advice and participating in the process of digital government building, contributing significant part to the local and national digital transformation programmes. To promote the digital government building in the Southeast region, where Ho Chi Minh City, Binh Duong Province and Dong Nai Province constitute a focal zone, it is necessary to have feasible measures to solve difficulties and challenges relating to regulations and mechanisms, providing digital human resource training, investing in digital infrastructure, and strengthening encouragement and propaganda on digital transformation widely in society, especially among young people, who will decide future of the country.

## NOTES

(1) It is a Ministry-level project on "Role of Youth Union officials in digital transformation for digital government building: Case study of Ho Chi Minh City, Binh Duong Province and Dong Nai Province" carried out for two year (2023 and 2024) by Nguyen Thi Luyen (PhD), Southern Institute of Social Sciences.

(2) The full name of the project is "Development Application of Population Database, E-Identification and E-Authentication for National Digital Transformation in the 2022-2025 Period with a Vision to 2030".

(3) <https://chuyendoiso.dongnai.gov.vn/Pages/news.aspx?CatId=32>; <https://dti.tphcm.gov.vn/AccountAdmin/LoginHCM>; and <https://stttt.binhduong.gov.vn/chuyen-doi-so/ket-qua-danh-gia-muc-do-chuyen-doi-so-nam-2022-binh-duong-xep-hang-19-63-tinh-thanh-pho-287743>

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