

THE DIGITAL ECONOMY IN VIETNAM: CURRENT STATUS AND POTENTIAL OF VIETNAM - SOUTH KOREA COOPERATION

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Abstract: *The digital economy has received significant attention from many countries in recent years. The digital economy includes everyday economic and commercial transactions with people, businesses, and governments processed through information and communication technologies. As Vietnam's economy expands, the contribution of its internet-based or digital economy has significantly increased in recent years. To achieve a high level of digital economy, Vietnam will focus on three pillars: e-government, e-economy, and e-society. Data statistics show that Vietnam's digital economy has grown significantly over recent years. The growth of Vietnam's digital economy has been attributed to various factors, including hard and soft infrastructure. But there are significant problems for Vietnam's digital economy, such as slowing economic growth, limited infrastructure, and human capital resources. Vietnam-South Korean relations have rapidly developed over recent decades, especially in economics. Given South Korea's advanced digital economy, there are many chances for Vietnam and South Korea to cooperate in developing Vietnam's digital economy in the coming years.*

Keywords: *digital economy, e-government, e-economy, e-commerce*

I. Introduction

The digital economy has received significant attention from many countries in recent years. The digital economy includes everyday and commercial transactions with people, businesses, and governments processed through

information and communication technologies (ICT). It is called the Internet economy or web economy, with transactions and commercial interactions facilitated by Internet-based social media, website platforms, mobile applications, artificial intelligence (AI), and the Internet of Things (IoT). As Vietnam's

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economy expands, the contribution of its internet-based or digital economy has significantly increased in recent years. This is partly attributable to Vietnam's attempts to develop a digital economy. The potential for Vietnam's digital economy development in the future is substantial, which creates huge opportunities for Vietnam-South Korea cooperation in this area.

This paper is structured into five parts: (1) Introduction; (2) Frame theory: Vietnam's digital economy development policy; (3) Research Methods; (4) Results and Discussion: Implication for Vietnam-South Korea economic cooperation in the digital economy; (5) Conclusions: provides a general conclusion for the future cooperation between Vietnam and South Korea in developing Vietnam's digital economy.

II. Frame theory: Vietnam's digital economy development policy

A digital economy uses digitized knowledge and information to allocate resources, productivity and contribute to high-quality economic growth. Developing the digital economy with a focus on the national digital platform is the driving force for developing the digital economy in all industries and fields [3].

Vietnam's digital economy development focuses on e-government, e-economy, and e-society. *The e-government pillar* aims to restructure the government infrastructure from public services to administrative procedures and develop an integrated system of online databases. It consists of data collection on population, land, business registration,

finance, and social insurance connected to a national data centre and accessible online. *The e-economy pillar* aims to build a digital economy in which e-commerce plays a vital role. Vietnam has also set a goal of establishing 100,000 tech firms domestically to design and produce innovative products and services with a "Make in Vietnam". *The e-society pillar* addresses Vietnam's digital gap by creating equal internet access and using online services.

Vietnam has implemented several laws to regulate its digital economy. The main document guiding the development of digital economy policies and strategies is Directive 16/CT-TTg, issued in 2017 to support the technological modernization of industry further [1]. It includes new digital infrastructure and networks, speeding up reforms to encourage businesses to adopt new technology, prioritizing the development of the Vietnamese ICT industry, building an innovation ecosystem, building technological skills, and raising awareness of the opportunities and challenges of Industry 4.0.

In 2020, Vietnam approved the National Digital Transformation Program by 2025, oriented toward 2030 [2]. This initiative will help accelerate digital transformation through changes in awareness, enterprise strategies, and incentives toward digitalising businesses, administration, and production activities. The program targets firms, cooperatives, and households that want to adopt digital transformation to improve their production, business efficiency, and competitiveness.

In March 2022, the government issued Decision No.411/QĐ-TTg approving the national strategy for the development of the digital economy and society to 2025, with an orientation toward 2030 [3], which will play a significant role in helping Vietnam overcome the status of a low-income country and become an upper-middle-income country, respectively. The government has set a target that the digital economy will account for 20% of the gross domestic product (GDP) by 2025. Other vital targets include 10% of the digital economy in each industry, 80% of enterprises using e-contracts, 50% of small and medium enterprises (SMEs) using e-contracts, 80% of the adult population using smartphones, 80% of the population aged 15 years and over having payment transaction accounts at a bank, and 70% of people at the working age are trained with basic digital skills. The strategy identifies the institutions, infrastructure, human resources, people, and businesses important in developing the digital economy and society. The strategy sets out 17 groups of tasks and eight groups of solutions to bring digital technology and digital data to penetrate naturally by default into all aspects of business production and the business of enterprises and people's lives.

The government offers incentives for information technology (IT) companies manufacturing the following items: software products and services; digital information content; IT products; informational security incident correction services; and information security protection. Eligible IT companies can avail of the following incentives: corporate

income tax exemption for four years, reduced corporate income tax for 11 years following the period of exemption, and investment credits [4].

Currently, multiple agencies support and regulate different aspects of Vietnam's digital economy. The current regulatory framework comprises commercial regulations and decrees issued by various ministries, of which the Ministry of Information and Communication (MIC) is the leading agency for telecommunication and ICT industry-related issues.

III. Research Methods

Data collection: the author chooses an inductive approach to review documents on the digital economy, the digital economy in Vietnam and South Korea. The secondary data sources used for research are scientific journals, books, and reports from different Vietnam and world databases.

Data analysis: qualitative combined with descriptive statistical methods (statistics, comparison, analysis and synthesis, inference, and induction...); analyzing data on the development of Vietnam's digital economy through specific indicators; analyze data on Vietnam-South Korea bilateral trade to determine the potential for future cooperation between Vietnam and Korea in Vietnam's digital economy.

IV. Results and Discussion

4.1. Current status and implication for Vietnam- South Korea economic cooperation in the digital economy

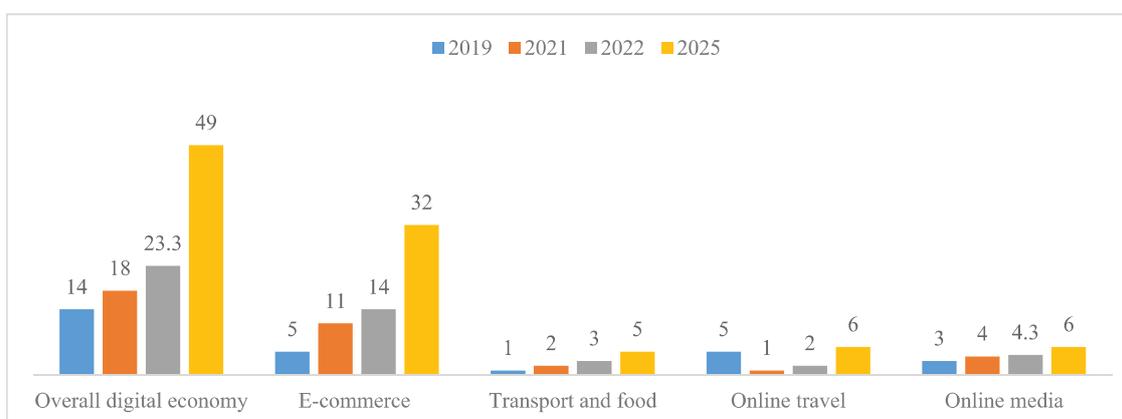
Current Status of Vietnam's digital economy development

Vietnam's digital economy has grown significantly in recent years, reflected in the growth of e-commerce, transportation, food, online travel, and online media.

Figure 1 shows that Vietnam's digital economy has grown significantly over recent years, from US\$ 14 billion in 2019 to US\$ 23.3 in 2022. In 2022, the size of the digital economy in Vietnam is higher than that of Malaysia (US\$ 21

billion), the Philippines (US\$ 20 billion), and Singapore (US\$ 18 billion) but lower than that of Indonesia (US\$ 77 billion), and Thailand (US\$ 35 billion). Regarding the growth rate, Vietnam's digital economy in 2022 has increased by 28% compared to 2021. This growth is also the highest among major economies in Southeast Asia (Indonesia, 22%; the Philippines, 22%; Singapore, 22%; Thailand, 17%; and Malaysia, 13%).

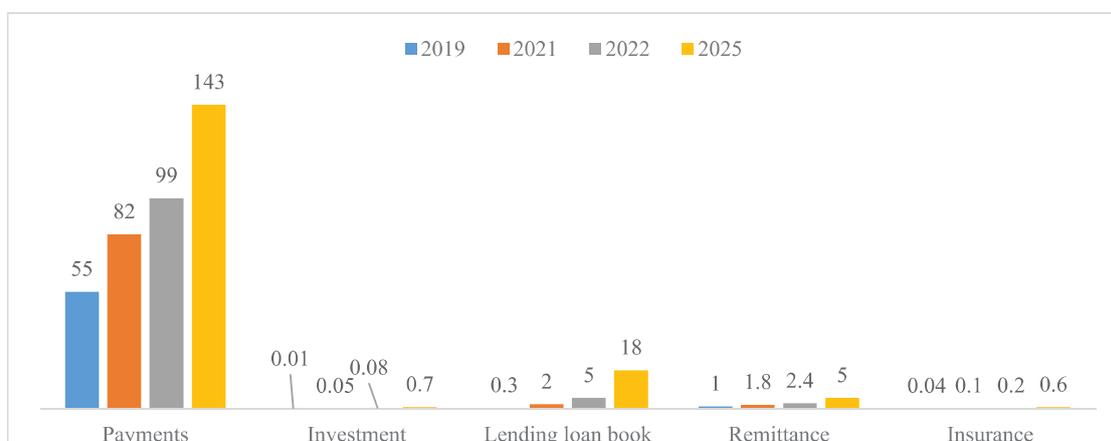
Figure 1: Vietnam's digital economy (US\$ billion)



Source: Google, Temasek and Bain & Company (2022), *economy SEA 2022*, <https://economysea.withgoogle.com/report/> [12]

The most critical sector in Vietnam's digital economy is e-commerce, with the sharing dramatically growing from 35.7% in 2019 to 60% in 2022. Online media, transport and food, and online travel follow this. In particular, after being heavily affected by the COVID-19 pandemic, the online tourism sector rebounded, reaching US\$ 2 billion in 2022.

Figure 2: Digital financial services (US\$ billion)



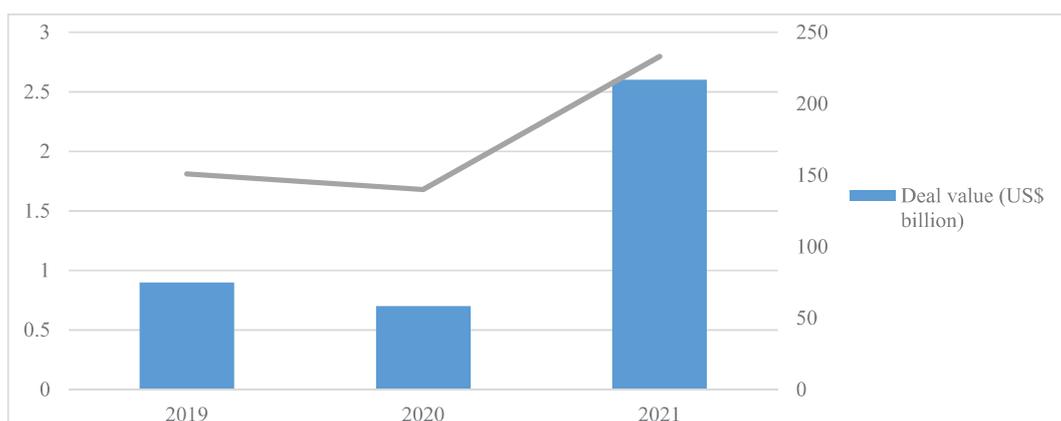
Source: [12]

Digital financial services continue to thrive in Vietnam (Figure 2). The most significant contribution is payments, reaching US\$ 99 billion in 2022, an increase of 21% compared to 2021. Other sub-sectors include lending loans and remittances, reaching US\$ 5 billion and US\$ 2.4 billion. According to the Ministry of Information and Communications, the percentage of SMEs using digital platforms exceeds 30% [5]. The number of digital technology enterprises is estimated to reach 70,000 in 2022, an increase of 6,200 enterprises compared with the previous year, or 0.7 firms per 1,000 people.

Urban digital users in Vietnam have the highest adoption of digital services, with e-commerce, transportation services, and food delivery topping the list with ratios of 96% and 85%, respectively.

The frequency of a Vietnamese person consuming digital content is lower than the regional average. In particular, 23% of survey respondents answered that they watch video-on-demand at least once per week, followed by 19% for online gaming and 16% for music-on-demand [6]. It shows that Vietnam still has significant long-term growth potential.

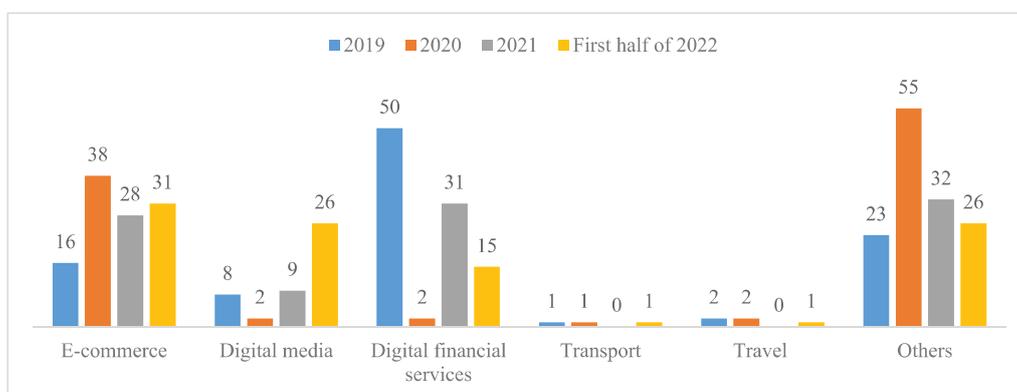
Figure 3: Private funding in value and deal count in Vietnam's digital economy



Source: [12]

After a decrease in 2020, deal activities in Vietnam's digital economy recovered in 2021, reaching US\$ 2.7 billion. The deals also increased from 140 in 2020 to 233 in 2021 (Figure 3).

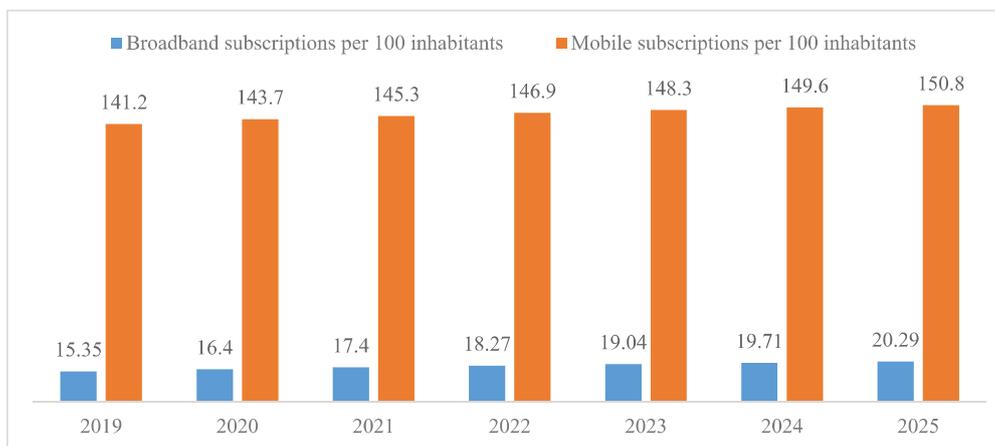
Figure 4: Private funding by sector in Vietnam's digital economy (%)



Source: [12]

Figure 4 indicates that Vietnam's digital economy has received increasing attention from private investors. Most private funding value focuses on e-commerce, digital financial services, and digital media. Meanwhile, private investments in online transportation and travel remain modest.

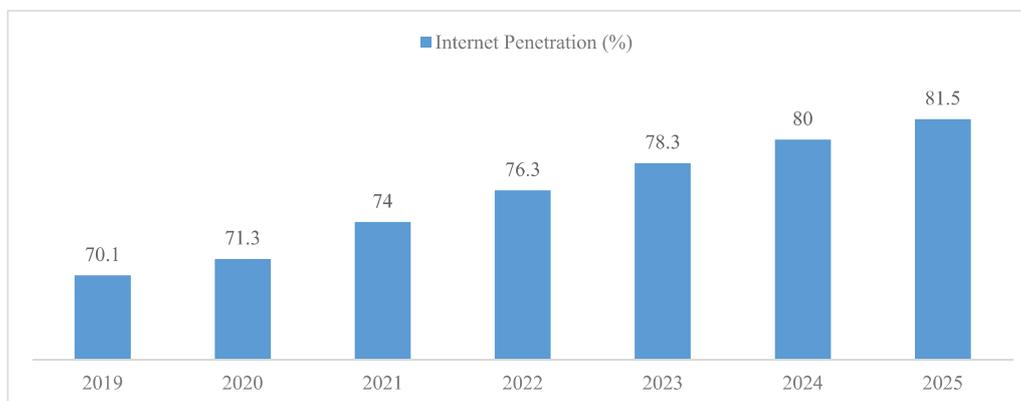
Figure 5: Some telecommunication development indicators in Vietnam



Source: Statista (2023), *Digital Economy - Vietnam*, <https://www.statista.com/outlook/co/digital-economy/vietnam> [13]

The growth of Vietnam's digital economy has been attributed to various factors. Vietnam has made significant progress in developing hard and soft infrastructure for its digital economy. The number of broadband subscriptions per 100 inhabitants and mobile subscriptions per 100 inhabitants has improved recently (Figure 5).

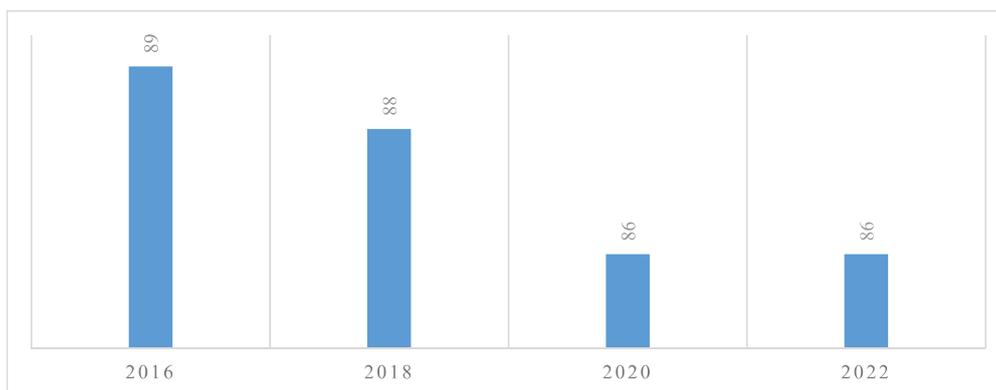
Figure 6: Internet penetration in Vietnam (%)



Source: [13]

Also, the percentage of internet users has increased significantly (Figure 6). Vietnam has also improved its ranking in the e-government development index (Figure 7), which helps reduce the time for administrative procedures for private sectors.

Figure 7: Vietnam's ranking in the e-government development index (EGDI) of the United Nations



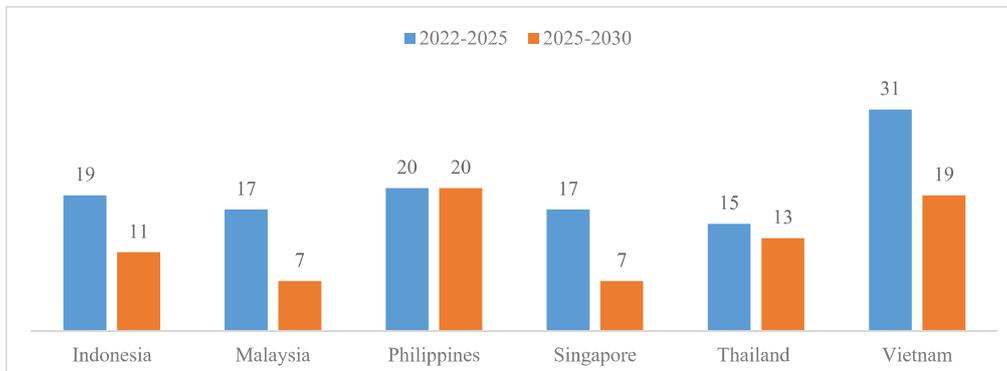
Source: United Nations, The United Nations E-Government Development Database, <https://publicadministration.un.org/egovkb/en-us/Data-Center> [14]

4.2. The prospect of Vietnam's digital economy

With a growth rate of 31% in 2022-2025 and 19% in 2025-2030, Vietnam's digital economy is forecasted to reach

approximately US\$ 49 billion by 2025 and between US\$ 120 billion and US\$ 200 billion by 2030. Vietnam is expected to experience the highest growth during 2022-2030 compared with other major economies in Southeast Asia (Figure 8).

Figure 8: Expected digital economy CAGR (Compound annual growth rate) (%)



Source: [12]

After the pandemic, Vietnam was one of the countries that quickly restored "new normal" activities. However, some consumption habits and trends formed and promoted during the pandemic are maintained and continue to develop. E-commerce is driving the growth of Vietnam's digital economy, and 90% of digital consumers plan to maintain or increase their use of e-commerce

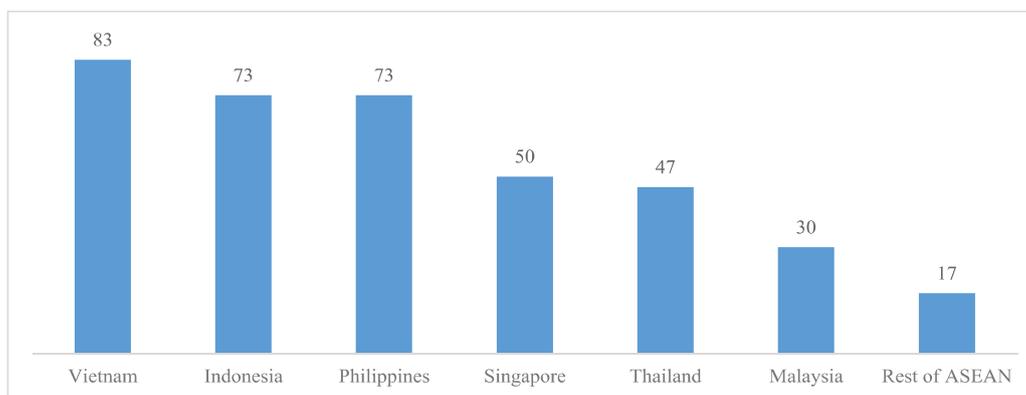
platforms within the next 12 months. Most consumers focus on "Food Delivery" (60%) and "Online grocery shopping" services (54%) [7].

Digital financial services are expected to grow dramatically, with lending loans and digital investments rising sharply by around 56% and 106% between 2022 and 2025. Likewise, this

period's growth rate for remittances, payments, and insurance is predicted to be high. Vietnam is also expected to have more digital deal activities between 2025 and 2030. In a survey, 83% of respondents

believed there would be an increase in private funding value in Vietnam's digital economy, which is significantly higher than in other Southeast Asian countries (Figure 9).

Figure 9: The expected increase in deal activity in 2025-2030 versus today (% answers)



Source: [12]

There are driving factors for the high development potential of Vietnam's digital economy, including the relatively high economic growth and government priority on digital transformation, increasing investment in digital infrastructure, increasing capital through foreign direct investment (FDI), and official development assistance. Other motivations include loans via fintech platforms, venture capital, increased exports/new markets including tourism, more knowledge and technology transfers/jobs and skills, a young population, a growing domestic middle class, and attractive ICT tax incentives.

On the other hand, the critical challenge for Vietnam in the digital transition will be to sustain solid macroeconomic fundamentals and keep the foreign debt and inflation under control while investing efficiently in infrastructure and human capital to unlock productivity potential. Another obstacle is the need

for coordination among public agencies to implement national digital economy strategies.

From the current situation and prospects of Vietnam's digital economy, the development orientation of Vietnam's digital economy in the coming time requires cooperation with countries worldwide. One of those countries is South Korea, which has a developed digital economy and a cooperative relationship with Vietnam to develop the digital economy.

4.3. Implication for Vietnam-South Korea economic cooperation in the digital economy

There has been a rapid development in Vietnam-South Korea relations over recent decades. These two countries boosted their diplomatic ties to a comprehensive strategic partnership level in 2022. In the economic field, South Korea and Vietnam have become the top trading

partners for each party. South Korea is currently the most important foreign investor in Vietnam. Vietnam is also the primary beneficiary of South Korea's foreign aid. South Korea's development aid to Vietnam is distinctive in that it focuses on socioeconomic development by sharing development experiences through education and vocational training.

Focusing on the trade field, Vietnam-South Korea economic relations have enjoyed substantial extensions over the years. The trade volume between the two sides rapidly grew from US\$12.85

billion in 2010 to US\$78.04 billion in 2021 (see Figure 10). Vietnam and South Korea reaffirmed their resolution to raise two-way trade turnover to US\$100 billion by 2023 and US\$150 billion by 2030 in a balanced direction [8]. As a result, South Korea and Vietnam have become top trading partners for each party. In 2020, Vietnam was the third-largest export destination and fifth-largest import source in South Korea. At the same time, South Korea was Vietnam's fourth-largest export destination and second-largest supply source (See Tables 2 and 3).

Figure 10: Vietnam-South Korea bilateral trade (US\$ billion)



Source: Author's data processing from UN Comtrade [14]

Table 2: Top Ten Trading Partners of South Korea in 2020

Rank	Export			Import		
	Country/Territory	Value (US\$ billion)	Share (%)	Country/Territory	Value (US\$ billion)	Share (%)
1	China	132.56	25.85	China	108.87	23.29
2	USA	74.44	14.52	USA	57.77	12.36
3	Vietnam	48.54	9.47	Japan	46.02	9.84
4	Hong Kong	30.66	5.98	Germany	20.67	4.42
5	Japan	25.09	4.89	Vietnam	20.58	4.40
6	Taiwan	16.46	3.21	Australia	18.71	4.0
7	India	11.95	2.33	Taiwan	17.84	3.81
8	Singapore	9.83	1.92	Saudi Arabia	15.98	3.42

9	Germany	9.58	1.87	Russia	10.62	2.27
10	Malaysia	9.08	1.77	Malaysia	8.89	1.90

Source: ASEAN- South Korea Center, 2021 ASEAN & South Korea in Figures, https://www.aseanSouthKorea.org/eng/Resources/ASEAN_Talks.asp [15]

Table 3: Top Ten Trading Partners of Vietnam in 2020

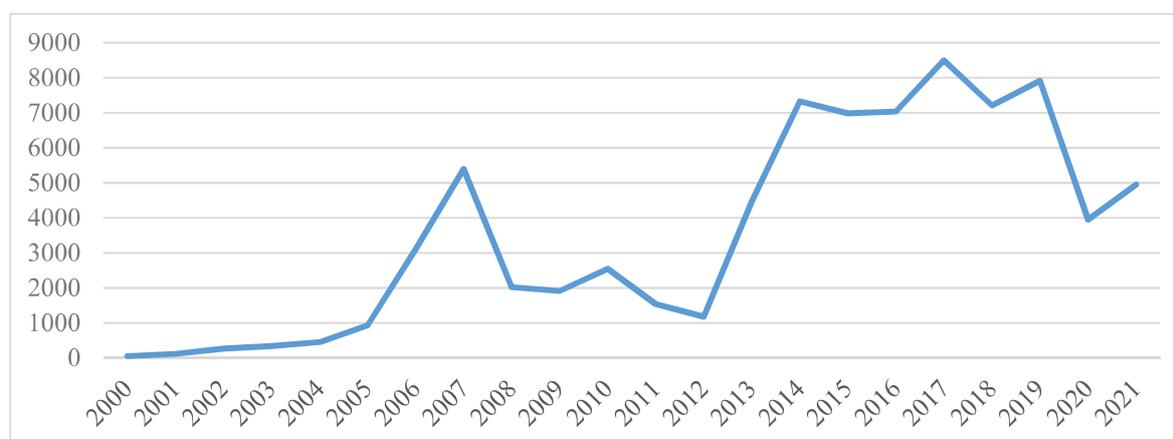
Rank	Export			Import		
	Country/ Territory	Value (US\$ billion)	Share (%)	Country/ Territory	Value (US\$ billion)	Share (%)
1	USA	77.07	27.38	China	84.20	32.22
2	China	48.88	17.37	South Korea	46.86	17.93
3	Japan	19.27	6.85	Japan	20.28	7.76
4	South Korea	19.13	6.80	Taiwan	16.70	6.39
5	Hong Kong	10.44	3.71	USA	13.76	5.27
6	Netherlands	7.00	2.49	Thailand	10.95	4.19
7	Germany	6.64	2.36	Malaysia	6.58	2.52
8	India	5.23	1.86	Indonesia	5.39	2.06
9	United Kingdom	4.95	1.76	Australia	4.68	1.79
10	Thailand	4.90	1.74	India	4.48	1.72

Source: [15]

Concerning the investment field, South Korea's outward FDI into Vietnam has significantly increased in recent decades, especially since 2012 (see Figure 11). In 2000, FDI from South Korea to Vietnam was only US\$50 million, but

this value increased remarkably, reaching US\$929 million in 2005 and US\$5.3 billion in 2007. The highest value of South Korea's FDI in Vietnam was US\$ 8.4 billion in 2018.

Figure 11: Total registered FDI from South Korea to Vietnam (US\$ million)



Source: Author's processing based on data from the Foreign Investment Agency (FIA), Ministry of Planning and Investment [9]

In terms of accumulated FDI, by the end of 2021, South Korea had 9223 FDI projects with a total accumulated capital of US\$74.65 billion, sharing 18.29% of total FDI in Vietnam, followed by Japan (15.78%), Singapore (15.77%), Taiwan (8.66%), and Hong Kong (6.82%) [9]. As of September 2022, South Korea ran 9,438 valid projects worth US\$80.5 billion, ranking first in registered capital and project number in Vietnam. South Korea has remained in its position as Vietnam's top foreign investor for many years, with registered capital increasing over 700 times since 1992.

The focus of South Korea's FDI in Vietnam shifted over time, moving from manufacturing industries in the 1990s to real estate in the early 2000s and the production of advanced technological equipment. South Korean firms play an essential role in the Vietnamese economy, accounting for approximately 30% of the country's combined export value.

In particular, South Korea is considered among the leading digital economies in the world with top relevant indicators in 2022, such as digital revenue (US\$ 154.4 billion), broadband subscriptions (44.50 per 100 inhabitants), mobile subscriptions (145.4 per 100 inhabitants), and internet use (92.6% of the population) [10]. South Korea ranks fifth among the 132 economies featured in the Global Innovation Index (GII) 2021 by the World Intellectual Property Organization (WIPO)[11].

With South Korea's high digital competitiveness and Vietnam's substantial development potential in the digital

economy, there are huge opportunities for cooperation between the two sides to support Vietnam's digital economy, including e-commerce, educational technology (Edtech), the ride-hailing industry, IT services finance, and banking and logistics. In e-commerce, cooperation between South Korea and Vietnam should focus on creating e-commerce platforms and digital payment modes, such as e-wallets. In Edtech, the need for online learning tools in Vietnam after the COVID-19 pandemic remains high. Thus, South Korean investors can increase investments in Edtech in Vietnam, such as learning management systems, school administration, enterprise learning, and early childhood education. The ride-hailing field is a relatively nascent industry in Vietnam, so there are many opportunities for foreign firms' presence. South Korean investors may concentrate on associated services like food delivery, hire, and shopping. Finally, in logistics, cooperation between South Korea and Vietnam should focus on investing in technology infrastructure and creating digital logistics maps, centralized data warehouses, and digital platforms linking multimodal transport services in Vietnam.

V. Conclusions

Digital connectivity, the digital economy, and artificial intelligence are key elements for countries to implement Industrial Revolution 4.0 successfully. These are priority areas in Vietnam and South Korea's economic development strategies. To achieve a high-level digital economy, Vietnam concentrates on three pillars: e-government, e-economy, and e-society. The current study showed

that there had been a significant value expansion in Vietnam's digital economy, and the digital economy has increasingly contributed to its economic growth in recent years. The study also showed that the future development of Vietnam's economy is promising but faces various issues, including slowing economic growth, limited infrastructure, and human capital resources. Given South Korea's advantage in developing 5G networks and artificial intelligence, the potential for future cooperation between Vietnam and South Korea in developing Vietnam's digital economy is large. The current study suggests that South Korea and Vietnam should concentrate on helping Vietnam to build and expand its e-commerce platforms and digital payment modes, ride-hailing, associated services sector, and technology infrastructure.

References:

- [1]. Directive No. 16/CT-TTg of the Prime Minister: *"On increasing access to the 4th Industrial Revolution"*.
- [2]. Decision No. 749/QD-TTg of the Prime Minister: Approving the *"National Digital Transformation Program by 2025, with an orientation toward 2030"*.
- [3]. Decision No.411/QD-TTg approving the *"National strategy for the development of the digital economy and society to 2025, with an orientation toward 2030"*.
- [4]. Dezan Shira & Associates (2022), Digital Economy Prospects in Vietnam and Identifying Government Support, Vietnam Briefing, Issue 49, <https://www.asiabriefing.com/store/book/digital-economy-prospects-vietnam-identifying-government-support.html>
- [5]. <https://aecvcci.vn/tin-tuc-n10836/vietnams-digital-economy-grows-most-strongly-in-southeast-asia.htm>
- [6]. <https://economysea.withgoogle.com/report>
- [7]. <https://economysea.withgoogle.com/report>
- [8]. VOV (2022), "Vietnam and RoK upgrade ties to comprehensive strategic partnership", December 5, 2022, <https://english.vov.vn/en/politics/diplomacy/vietnam-and-rok-upgrade-ties-to-comprehensive-strategic-partnership-post988583.vov>
- [9]. Foreign Investment Agency (FIA), "FDI Report in Various Years", Ministry of Planning and Investment.
- [10]. <https://www.statista.com/outlook/co/digital-economy/south-korea#key-market-indicators>
- [11]. https://www.wipo.int/edocs/pubdocs/en/wipo_pub_gii_2021/kr.pdf
- [12]. Google, Temasek and Bain & Company (2022), economy SEA 2022, <https://economysea.withgoogle.com/report/>
- [13]. Statista (2023), Digital Economy - Vietnam, <https://www.statista.com/outlook/co/digital-economy/vietnam>
- [14]. United Nations, The United Nations E-Government Development Database, <https://publicadministration.un.org/egovkb/en-us/Data-Center>
- [15]. Source: ASEAN- South Korea Center, 2021 ASEAN & South Korea in Figures, https://www.aseanSouthKorea.org/eng/Resources/ASEAN_Talks.asp