



BACKGROUND NOTE

Viet Nam's Digital Transformation is Driven by Policies Fostering Innovation and Start-ups

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Viet Nam's digital transformation is driven by policies fostering innovation and start-ups

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In a short time, Viet Nam has emerged as a significant hub in Southeast Asia to produce digital technology and information and communication technologies (ICTs). The perception of Viet Nam has changed from mid-level performer in innovation to a top performer of low middle-income countries. Viet Nam has an overall Global Innovation Index performance that is, by large, comparable with the top economies in the upper middle-income group, driven by a high rate of ICT exports and imports, well-performing primary and lower secondary education system, and access to credit (table). In September 2019, the Party Resolution 52 established a new long-term vision, policy framework, and targets for the national development to accelerate digital transformation. Viet Nam strives to maintain its position in the top three Association of Southeast Asian Nations (ASEAN) countries in the Global Innovation Index and to expand the share of the digital economy to 20% of the gross domestic product (GDP) by 2025.

Innovation Rankings of the Selected ASEAN Countries

	2015	2016	2017	2018	2019
Indonesia	97	88	87	85	85
Malaysia	32	35	37	35	35
Philippines	83	74	73	73	54
Thailand	55	52	51	44	43
Viet Nam	52	59	47	45	42

ASEAN = Association of Southeast Asian Nations.

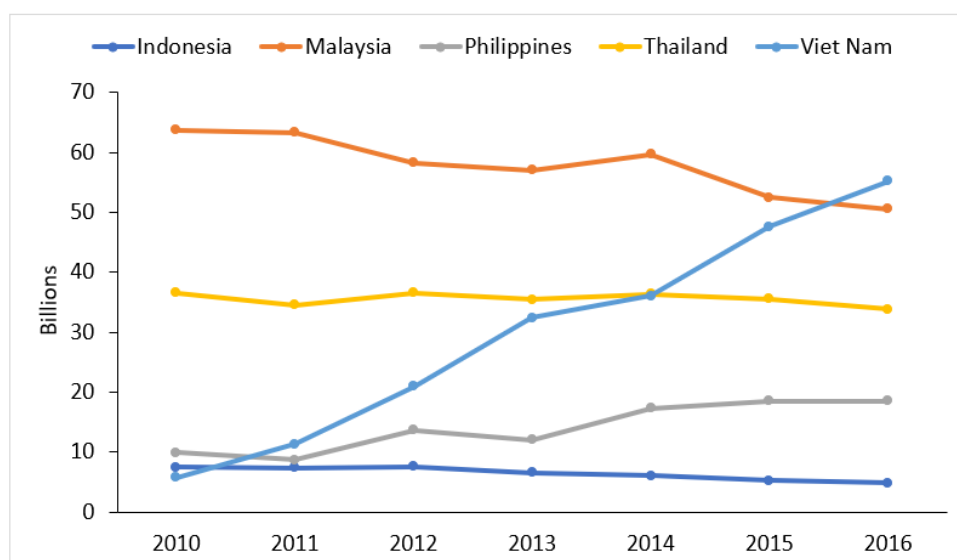
Source: Global Innovation Index 2015–2019 <https://www.wipo.int/>.

Viet Nam has promoted ICT industries since the mid-1990s. An early success was the Intel corporation announcement of US\$1 billion investment into a chip assembly and testing facility in Saigon High-Tech Park in 2006. More recently, large foreign direct investment inflows from other large multinational companies, such as Samsung, LG, Foxconn, have led to the rapid

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growth of the ICT-industry. Viet Nam's development has outpaced other countries (figure), and it has the highest high-tech trade per GDP ratio. The exports in ICT hardware and electronics, including mobile phones and accessories, were estimated to reach US\$78.7 billion in 2018. It is over 10 times higher than in 2010 and accounted for 32.3% of all exports.

ICT Goods Exports of the Selected ASEAN Countries (BOP, US\$)



ASEAN = Association of Southeast Asian Nations, BOP = balance of payment, ICT = information and communication technology.

Sources: World Bank Development Indicators database (accessed 30 December 2019); World Bank WITS database (accessed 30 December 2019); authors calculations.

However, the early growth of ICT services industry was affected by shortages of human resources and concerns about intellectual property rights and cybersecurity (Mitra 2013). According to the Organisation for Economic Co-operation and Development (2014), review of Viet Nam's innovation system, structural change towards high technology, and eventually, more sophisticated goods and tradable services of high knowledge content had been rather slow, and science, technology, and innovation capabilities were weak compared with other nations. Without a more developed national innovation system, Viet Nam could not take advantage of more advanced technologies and compete in the globalizing markets and international value chains. Hence, still in 2018, about 80% of the ICT-sector net revenues came from manufacturing, low-cost assembly of electronics and hardware. In ASEAN upper-middle-income countries, including the Philippines, the share of services sectors of the digital economy is more significant, and the net export income is higher than in Viet Nam.

To turn the trajectory of economic development towards high technology and digital content, and to avoid the middle-income trap, the government adopted new policies, programs, and statutes between 2016 and 2018. Prime Minister's decision 844 to support the innovation ecosystem provided a vision for Viet Nam to become “a start-up nation” and to speed up the adoption of new technology and ICT. Further, a new legal framework, *The Law on Small and Medium Enterprises 2017* and *Decree 38*, provided an institutional framework for direct public support for new business and venture capital investments.

Viet Nam has continued to pick up points in the Global Innovation Ranking for strong economic performance on ICT goods trade, education, credit to the private sector, and there is emerging evidence for positive changes in the ICT industry. The sustained growth of local brands and ICT software and services companies, such as FPT, CMC, VNPT, and VNG, the first-ever Vietnamese unicorn, is transforming the domestic private sector and their success is building public confidence in developing different sectors of a digital economy, including e-commerce, financial technology, and Industry 4.0. Also, the number of start-ups is proliferating. In 2018, Vietnam attracted nearly US\$900 million in investment in start-ups, about three times more than in 2017 (Asian Development Bank 2020).

Nevertheless, there are factors holding back the national innovation system. First, Viet Nam's impressive economic growth is still, to a large extent, based on the increase in low-wage manufacturing and electronics. Employment in ICT manufacturing grew by almost 50 % from 2015 to 2017 and may reach 1 million jobs by 2020. Second, there is a shortage of skills and concerns of the availability of highly skilled labor. The tertiary education system ranks low compared with the upper-middle-income ASEAN countries, and there are no Vietnamese universities in top 200 of the 2019 Asian University Ranking. Third, the share of total R&D spending in GDP, including public and private sector, has barely grown over the last decade, while in Malaysia and Thailand R&D intensity and investment is growing and outpacing any progress made in Viet Nam (Klingler-Vidra and Wade 2019). Fourth, the finance sector and private sector financing is heavy on the banking sector and asset-based lending. Despite the improved legal framework and emerging venture capital industry, low sophistication of the finance sector reduces the availability of early-stage and growth financing for the private sector.

Viet Nam has a vast potential to develop a digital economy. It has strong foundations for future economic performance and productivity growth. Eventually, it will graduate from the lower middle-income-group as a top performer in innovation. However, it will be much harder to compete for high-quality jobs and knowledge-intensive industrial production. Viet Nam can still learn from the example of more advanced economies on how to develop a full-fledged innovation system and how to climb the global value chain ladder.

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