



Key sub-sectors that have driven growth are games, online services and e-commerce, says the inaugural *Singapore Digital Economy* report.
PHOTO: BLOOMBERG

Singapore's digital economy contributed 17.3% to GDP in 2022, up from 13% in 2017, IMDA finds

The bulk of value added from digitalisation comes from the finance and insurance sector

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SINGAPORE'S digital economy last year contributed 17.3 per cent to its gross domestic product (GDP), up from 13 per cent in 2017, a report by the Infocomm Media Development Authority (IMDA) showed on Friday (Oct 6).

This represents a near-doubling of its value added or economic contribution to S\$106 billion, up from S\$58 billion over the five-year period, based on IMDA's inaugural *Singapore Digital Economy* report developed in partnership with the Lee Kuan Yew School of Public Policy.

IMDA defines this economic contribution as the sum of income generated from the domestic production of goods and services, which promises gross operating surplus, remuneration and taxes after subsidies on production.

Definitions unclear

The report noted a lack of international consensus on what constitutes the digital economy. Some studies have focused on estimating the size of digital sectors, while others consider the value of digitalisation across the broader economy.

"Therefore, estimates on the size of the digital economy are not easily com-

parable across jurisdictions. Caution needs to be exercised with the international comparison of estimates of the digital economy," said IMDA.

"Instead, our main purpose in estimating the size of the digital economy in Singapore is to get a sense of its economic contribution and pace of change," it added.

IMDA said its report takes a "holistic" view by looking at two components of the digital economy: the value added by the information and communications sector as a producer of digital services, as well as the value added from digitalisation in the rest of the economy.

Still, Singapore compares "favourably" with "similar open economies", based on the methodology it used in this report, Doreen Tan, assistant chief executive of strategic planning and digital readiness, told reporters during a briefing.

Using available data from 2020, Singapore's digital economy was 16.7 per cent, compared with 16.6 per cent for Estonia, 16.1 per cent for the UK and 15 per cent for Sweden.

In 2022, Singapore's infocomm sector accounted for 5.4 per cent of its overall GDP. It was also the fastest-growing sector, with a compound annual growth rate (CAGR) of 10.3 per cent per annum over that five-year period, IMDA noted.

Key sub-sectors that drove growth

were games, online services and e-commerce, all of which registered double-digit CAGR of up to 70 per cent per annum.

'Encouraging' growth

The value added from digitalisation across the rest of the economy was measured using the growth accounting method. This is a quantitative tool that breaks down how specific factors contribute to economic growth – typically labour, capital and technology.

Using this method, IMDA found that digitalisation in the rest of the economy contributed 11.9 per cent to GDP in 2022. The figure was 8.7 per cent in 2017. This translates to a CAGR of 13.5 per cent per annum over the five-year period, outpacing the rate of overall growth.

"What's encouraging is the growth is not just in the traditional tech companies or tech sector, but actually more than two-thirds of that growth is actually from digitalisation in the rest of the economy," Lew Chuen Hong, IMDA chief executive, said at the briefing.

The bulk of this contribution came from the finance and insurance sector, followed by wholesale trade and manufacturing.

The technology adoption rate among small and medium-sized enterprises (SMEs) rose to 94 per cent in 2022, up

from 74 per cent in 2018.

However, there remains a significant gap between SMEs and larger firms in terms of the intensity of technology adoption, the report noted. This refers to the average number of digital technologies adopted per firm out of nine technology categories, including cybersecurity, cloud and data analytics. Larger firms had an intensity of 5.7 in 2022; among SMEs, the figure was 2.1.

Asked how the Covid-19 pandemic may have contributed to the growth of Singapore's digital economy, Tan said it "definitely was one of the important tailwinds", but added that the growth momentum had already started before that.

As for manpower, the number of tech jobs rose to 201,100 last year, up 29.3 per cent from that in 2017. Tech jobs accounted for 5.2 per cent of total employment in 2022, an increase from 4.2 per cent in 2017.

"Our investments in infrastructure, skills training as well as pro-digital policies to support a digital ecosystem are paying off," Minister of Communications and Information Josephine Teo said in a LinkedIn post.

Non-infocomm sectors accounted for about 57 per cent of total tech jobs in 2022. In all, 70 per cent of tech jobs were held by Singaporeans and permanent residents. The resident median monthly wage was S\$7,376.

Teo noted that Singapore must take advantage of growth opportunities offered by the digital economy, adding: "It is a great equaliser that allows even small countries like ours to punch above our weight and compete against larger countries."