Government support for small and medium enterprises in technology adoption in selected places

1.   Introduction

1.1   Innovation and technology are drivers for economic growth and among the key factors to enhance competitiveness of businesses.   In particular, digitalization has become a trend across industries as the COVID-19 pandemic necessitated social distancing, forcing businesses to operate fully or partially online.   In a quarterly survey conducted by the Hong Kong Productivity Council ("HKPC") in Q4 2019, 86% of surveyed small and medium enterprises ("SMEs") agreed digital technology deployment as a business development trend.   However, SMEs also have concerns that they may not be able to clearly identify their needs or do not have enough capabilities and resources to go digital.   HKPC's quarterly survey conducted in Q2 2020 revealed that 84% of the surveyed SMEs wished to receive government support for digital technology deployment.

1.2   At the request of Hon Christopher CHEUNG Wah-fung, the Research Office has completed a research task on government support for SMEs in technology adoption in selected places.   Places under study are Shenzhen, Singapore, Taiwan, the United Kingdom ("UK") and California of the United States ("US").   These places have devised strategies/roadmaps to drive SME technology adoption, and/or collaborated with large technology firms to strengthen SMEs' digital capability.   The respective governments' strategy for supporting technology adoption of SMEs and major support measures are organized into an information pack folder, with key observations outlined in the ensuing paragraphs and the **Appendix**.

2.   Government support for SMEs in technology adoption in selected places

2.1   In **Hong Kong**, SMEs constitute more than 98% of business establishments and employ about 45% of workforce in the private sector.   A number of funding schemes related to technological adoption are currently available to SMEs, including the Technology Voucher Programme and the Reindustrialisation and Technology Training Programme under the smart city initiative.   There are also grants targeted towards selected industries, such as retail, logistics, travel and construction for technology adoption.   The Distance Business Programme under the Anti-Epidemic Fund provides funding support to enterprises for adopting IT solutions in order to continue their business and services during the epidemic.   Consultancy services and training are provided by

various departments and agencies, including the Trade and Industry Department, the Hong Kong Trade Development Council, Cyberport and the Hong Kong Science and Technology Park.

2.2　　　Most jurisdictions under study have in place **blueprints** guiding SME digital transformation with support programmes.　In **Shenzhen**, support programmes for technology adoption are guided by various blueprints and implementation plans promulgated by the government from time to time.　One of the major plans is "深圳市數字經濟產業創新發展實施方案(2021-2023 年)", which sets out targets and directions in developing the city's digital economy, including the application of technology across industries.　The national-level "中小企業數字化賦能專項行動方案" promulgated in March 2020 specifies target technologies to be promoted among SMEs, such as cloud computing and related applications, technologies that enable remote working, and digital solutions for supply chain management.　To implement the plan, funding schemes targeted at specific technology or industries have been launched, such as 深圳市 2020 年中小微企業上雲資助, which subsidizes enterprises' adoption of cloud computing.

2.3　　　**Singapore's Smart Nation** is a comprehensive strategy to transform the country's public service and economy through digital technology.　A wide range of funding schemes and other support programmes have been put in place to ensure that SMEs join in the transformation.　The SMEs Go Digital programme, launched in April 2017, is one of the major initiatives towards this objective.　The programme features sector-specific **roadmaps** called **Industry Digital Plans**, which provide specific goals and implementation plans for different stages of digitalization, with recommendations on suitable solutions.　Industry Digital Plans have already been issued for a number of industries, including retail, logistics and wholesale.　In addition to grants covering the cost for adopting recommended digital solutions, the SMEs Go Digital programme provides SMEs with discounted digital tools and e-commerce platforms.　The Agency for Science, Technology and Research (commonly known as "A*STAR") also has a range of programmes to assist SMEs, such as the Operation and Technology Roadmapping programme, which help businesses develop plans to enhance their competitiveness by adopting suitable technologies.

2.4　　　In **Taiwan**, the government announced in September 2020 its SME digitalization strategy titled "引領中小微型企業數位轉型戰略攻頂計畫", which allocates a total of NTD3.6 billion (HK$952 million) in 2021-2025 to support digital transformation of SMEs. Specific goals under the strategy include supporting 32 000 SME digital upgrading projects, nurturing 750 young talents as consultants to promote digital transformation in businesses, establishing an information sharing platform, and publishing 200 success cases to share the success factors.　Separate from the digitalization strategy, some other support programmes such as "經濟部亞洲矽谷智慧商業服務應用推動計畫" have been offered by the Small and Medium Enterprise Administration of the Ministry of Economic Affairs, providing business consultancy and subsidies to SMEs to upgrade their services.

2.5   In the **UK**, current support programmes for technology adoption are based on the **Industrial Strategy** published by the government in November 2017, focusing on enhancing productivity through innovation and technology.   Notably, the **Business Basics Programme**, which is one of three strategic packages under the Industrial Strategy, is a four-year programme to test and evaluate innovative ways of supporting SMEs to boost productivity.   The programme provided a wide range of solutions to address the different hurdles faced by SMEs, from adoption to new technologies (such as human resources software) and digital capabilities (such as social media presence) to changes in management practices.

2.6   In **California** of the US, there appears no specific blueprint or roadmap at the state level guiding SME technology adoption.   Government support for SMEs is mainly channelled through a network of **small business technical assistance centres**, which provide free/low cost business consulting and training services.   The state's Technical Assistance Expansion Program provides annual funding for these business technical assistance centres.   In view that California is home to many technology firms and startups, its government has also leveraged on the private-sector resources to support SMEs' technology adoption.   The "**Get Digital CA!**" programme, launched in 2020, assists SMEs in adopting e-commerce through providing intensive training, discounted tools and services, and online promotional events.   California-based technology giants such as Google, eBay and Salesforce are partners of this programme.   Additional resources are also available at the city level.   For instance, in view of the impact of the COVID-19 pandemic on brick and mortar businesses, Los Angeles has launched an initiative called "LA Optimized" to help SMEs adapt to online sales and marketing, such as providing assistance in website design.

Salient features of government support for SMEs in technology adoption

	Shenzhen	Singapore	Taiwan	United Kingdom	United States (California)
Basis for support for SMEs in technology adoption	• 中小企業數位化賦能專項行動方案; and • 深圳市數字經濟產業創新發展實施方案(2021-2023 年).	• Smart Nation Strategy; • Enterprise Singapore's Strategic Plan; and • Industry Digital Plan under the SMEs Go Digital initiative.	• "數位國家‧創新經濟發展方案(2017-2025 年)"; • 引領中小微型企業數位轉型戰略攻頂計畫; and • 亞洲‧矽谷推動方案.	• Industrial Strategy[1].	• Digital Economy Agenda (at the federal level). • Not specified at the state level.
Responsible government agencies	• Ministry of Industry and Information Technology (工業和信息化部); • Shenzhen Municipal Government; and • Industry and Information Technology Bureau of Shenzhen Municipality (深圳市工業和信息化局).	• Smart Nation and Digital Government Office; • Infocomm Media Development Authority; • Enterprise Singapore; and • Agency for Science, Technology and Research (A*STAR).	• Ministry of Economic Affairs (經濟部); • Small and Medium Enterprise Administration (中小企業處); and • Industrial Development Bureau (工業局).	• Department for Business, Energy & Industrial Strategy.	• Department of Commerce; • Small Business Administration; and • International Trade Administration.

Major funding schemes	• 深圳市 2020 年中小微企業上雲資助:
	The scheme subsidizes 50% of the cost of purchasing cloud computing services (capped at RMB2,000 (HK$2,384)).
	  • A total of RMB4.26 million (HK$5.08 million) was allocated to 3 170 SMEs in 2020.
	• 數字經濟產業扶持計劃:
	The scheme provides up to RMB3 million (HK$3.6 million) funding for the development and/or application of targeted technologies, including big data, cloud computing, cybersecurity, blockchain, etc.
	  • 265 projects with funding totalling RMB339.8 million (HK$405 million) were approved in 2020.
		• SMEs Go Digital:
		Under the programme, SMEs may apply for the Productivity Solutions Grant to get subsidies of up to 80% of the costs incurred in adopting IT solutions and purchasing equipment to enhance productivity.
		  • Around 6 400 projects involving 5 370 companies have been supported under the Productivity Solutions Grant as at April 2018.
			• 經濟部亞洲矽谷智慧商業服務應用推動計畫:
			The scheme sponsors enterprises in retail and business service industries in adopting technology, subsidizing up to 50% of the cost.
			  • In 2018, the scheme supported eight department stores and 20 business service providers (with a total of 11 706 outlets), involving NTD222 million (HK$57 million).
			• 中小型店家數位轉型補助方案:
			With total budget of NTD900 million (HK$238 million) over three years, the programme subsidizes SMEs in retail and food service industries in selected locations in adopting digital technology.
			  • As of January 2021 (15 months after programme launch), 10 156 applications have been received, of which 8 478 have been approved.
				• Business Basics Fund:
				The Fund supports trial projects aimed at testing ideas in encouraging SME technology adoption.
				  • Two rounds of funding, totalling £2 million (HK$21 million) for each round, have been distributed so far. About 140 applications from a wide range of organisations were received for the first round, of which 15 were selected.
				• Innovation Vouchers Programme[2]:
				The programme provides 100% funding (up to £5,000 (HK$52,825)) for businesses to work with a public sector knowledge provider (e.g. universities) on productivity-enhancing innovation.
					• Technical Assistance Expansion Program:
					US$17 million (HK$132 million) is provided each year from 2018-2019 through 2022-2023 to small business technical assistance centres for the expansion of SME services, such as one-on-one consulting and training.

Notes: (1) This refers to the Industrial Strategy published in 2017. The Boris Johnson Administration published a new Industrial Strategy in November 2020, superseding the 2017 Industrial Strategy produced by the former government. However, the Business Basics Programme under the 2017 Industrial Strategy is still ongoing.

(2) The nationwide programme ran from 2014 to 2016, while the programme under the same name is still running in Northern Ireland.

Salient features of government support for SMEs in technology adoption

	Shenzhen	Singapore	Taiwan	United Kingdom	United States (California)
Funding schemes /business support under COVID-19 relief packages	• 深圳市中小企業數字化賦能共同行動: The government partnered with giant technology firms to advise SMEs on technology adoption and recommend digital solutions.	• Digital Resilience Bonus: Enterprises that adopt pre-defined categories of digital solutions can receive subsidies up to S$10,000 (HK$58,640).[3]	• Grants are provided to assist specific industries (e.g. retail, food and beverage) in digital transformation.	• Grants of £1,000-£5,000 (HK$10,565-HK$52,825) are provided to SMEs for new equipment and technology and specialist advice to help them get back on track.	• The state government partnered with industry-leading companies to help small businesses improve their online presence. • At city level, Los Angeles launched "LA Optimized" to help SMEs adapt to online sales and marketing.
Other types of support programme	• The Service Bureau for Small and Medium-sized Enterprises of Shenzhen Municipality (深圳市中小企業服務局) runs short training programmes for SMEs on various topics, including big data and Internet of things.	• SMEs Go Digital: In addition to grants, the programme also provides pre-approved digital solutions, e-commerce platforms, industry-specific digitalization plans, and consultancy services for SMEs. As at September 2020, 50 000 SMEs have adopted solutions through the programme. • Operation and Technology Roadmapping: The programme provides technical advice and funding to help businesses develop roadmaps for technology adoption.	• 中小企業服務創新推動計畫: The scheme provides consulting service to help SMEs upgrade through innovation, technology adoption and other improvements.	• Growth Hubs: 38 local hubs provide business support to SMEs.	• Get Digital CA!: The programme helps SMEs go digital through partnering with technology firms in the private sector to provide free training, technical assistance, and/or discounted tools and services. • Digital Attaché Program: The programme assists US companies in accessing international e-commerce channels and navigating e-commerce related policy issues overseas.

Note: (3) In the current pilot stage, the scheme covers the food services and retail sectors only.

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