Digital innovation is radically changing the nature and structure of products and services across all sectors of the economy. These innovations are transforming and disrupting entire industries, such as retail, transport, and logistics. Harnessing digital capabilities can spawn novel value-creation pathways for firms towards enhancing their profitability and survival. In Singapore, the Report of the Committee on the Future Economy i While a scheme’s take-up rate alone is not a good measure of whether it has achieved its objectives, identified strengthening digital capabilities as a key strategy to transform the economy. Accenture Strategy research noted that 28% of output in mature market economies is digital.2 In other words, digital technology is key to firm innovation and growth.

However, relative to large firms, small companies are often poorly equipped to take advantage of digital technologies to enhance the way they run their businesses, to serve their customers effectively, and to reach out to new markets. Most small and medium-sized enterprises (SMEs) lack the knowledge resources and are short of people with digital skills. There are also barriers to creating an innovation mind set and for harnessing digital platforms to facilitate and on-board innovation.

In Singapore, 217,900 SMEs make up 99% of the enterprises and contribute to nearly half of the GDP while employing 70% of the workforce.3 Thus, these enterprises play a significant role in the development of the country’s economy. However, SMEs are facing turbulent environments, with local, international and online challenges that cause almost 2 in 3 businesses to fail.

Salient challenges for them include manpower shortage and high production costs.4 Particularly, SMEs find it difficult to recruit employees as workers are drawn to other employers (e.g., multinationals) that offer higher salaries. Another major challenge for these businesses is that of rising competition. While local competition is already a significant issue (reported by 60% of SMEs), global and online competition has created further challenges. This necessitates that these enterprises lower costs and offer more choices to consumers in order to compete regionally (e.g., in ASEAN) and globally. In response to these challenges, key strategies for SMEs are to automate business processes and leverage digital options. Streamlining processes reduces manpower requirements and increases SME efficiency and productivity. Business process mapping and re-engineering thus become key steps while investing in technology to automate processes. However, SMEs typically lack skills and capabilities to streamline their processes and exercise digital options. Other than upgrading employee skills to better leverage digital options, SMEs also require a change of organisational culture and tangible tools to help them embrace digital innovation. The change of mind set entails creating and sustaining an innovation and startup-like culture in SMEs to develop a pro-active, rather than reactive response to digital technologies, such as mobile devices and social media. Also, adopting open innovation (i.e., innovation by involving customers and external parties) approaches and crowdfunding opportunities can enable SME’s to overcome the resource constraints they face in digitization and expansion.

In this regard, the Singapore government has announced and begun to implement several initiatives. First, the SME ‘Go Digital’ Programme5 was announced at Budget 2017 to help SMEs build stronger digital capabilities to seize the opportunities for growth in the digital economy. SMEs ‘Go Digital’ proposes a structured and inclusive approach towards the adoption of digital technologies by SMEs. Through sectoral Industry Digital Plans, starting with sectors such as retail, food services, wholesale trade, logistics, security, and environmental services, SMEs are provided advice by SME Centres on the appropriate technologies to use as they grow and expand. These include, digital roadmap, consultancy, and project management services. At the same time, IT vendors are

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being offered grants to develop digital solutions proven to deliver productivity gains to SMEs. Second, the Enterprise Development Grant (EDG)\(^6\) is a financial assistance programme that is intended to assist Singapore companies to upgrade their business, innovate or venture overseas, under three pillars of core capabilities (e.g., strategy, marketing, financial, and human resource management), innovation and productivity (i.e., automation, process redesign, and product development), and market access (e.g., M&A, pilot test, and standards adoption). The grant funds up to 70% of qualifying project costs for SMEs i.e., third party consultancy fees, software and equipment, and incremental internal manpower cost. Finally, the Productivity Solutions Grant (PSG)\(^7\) and the Market Readiness Assistance (MRA)\(^8\) Grant are newer schemes with specific intents. The PSG supports companies looking to adopt particular productivity solutions or equipment. The grant support for pre-approved solutions under the SMEs Go Digital programme is being streamlined into the PSG. For a start, PSG covers sector-specific solutions including the retail, food, logistics, precision engineering, construction and landscaping industries. Other than sector-specific solutions, PSG also supports adoption of solutions that cut across industries, such as in areas of customer management, data analytics, financial management and inventory tracking. On the other hand, the MRA supports SMEs who wish to take their first step into overseas markets. This includes providing assistance in overseas market setup, finding overseas business partners, and overseas market promotion. Since the areas of support have been pre-specified, the purpose of the PSG and MRA is largely to facilitate ease of adoption. Overall, the SME landscape in Singapore is complex and diverse\(^9\). Schemes to help SMEs can be targeted and customized. Also, there is a need to review the objectives, design, and implementation of the schemes regularly based on their take-up rate and achievement of objectives. Over time, the goal is to encourage SMEs to develop their capabilities, and reduce their dependence on government support. Moving forward, beyond basic automation, additional digital capabilities to utilize artificial intelligence, business analytics, and mobile commerce will need to be developed which would better enable SMEs to thrive and innovate in the digital economy.

\(^6\) https://www.enterprisesg.gov.sg/financial-assistance/grants/for-local-companies/enterprise-development-grant/overview

\(^7\) https://www.smeportal.sg/content/smeportal/en/moneymatters/grants/productivity-solutions-grant-psg.html

\(^8\) https://www.enterprisesg.gov.sg/financial-assistance/grants/for-local-companies/market-readiness-assistance-grant