

Profile of SMEs Implementing Digital Solutions Supported by the Productivity Solution Grant

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Introduction

Digitalisation is a key enabler for businesses to improve their competitiveness, increase revenue and raise productivity. By adopting digital technologies, firms can reach a wider market through e-commerce or improve efficiency by automating business processes. Over the years, the Singapore Government has implemented various initiatives and schemes to help firms in their digital transformation efforts and take advantage of the new opportunities that come with it.

SMEs Go Digital Programme

SMEs¹ form the backbone of the Singapore economy, contributing about two-thirds of employment and half of Singapore's Gross Domestic Product (GDP). To keep up with the rapidly changing economic landscape, it is thus crucial to develop digital capabilities of the SMEs.

Managed by the Infocomm Media Development Authority (IMDA) and Enterprise Singapore (ESG), the SMEs Go Digital programme² aims to help SMEs build stronger digital capabilities to improve productivity and seize growth opportunities. Under the programme, firms that adopt digital solutions pre-approved by IMDA can receive funding support from the Productivity Solution Grant (PSG) to defray implementation costs. Between April 2018 and June 2020, about 14,700 SMEs implemented digital solutions with support from the PSG scheme.

PSG-supported digital solutions can be grouped into several broad categories. Commonly implemented solutions include Sales Management, Inventory Management, Customer Relationship Management and Workforce Management solutions. These solutions help firms manage sales and order fulfilment,

track inventory levels and movement, promote customer retention via loyalty programmes and manage human resource functions, such as payroll and training. Remote Working solutions support virtual meetings and online collaborations. E-Payment (e.g. point-of-sales) and E-Commerce solutions are also frequently implemented in industries with business-to-customer (B2C) transactions, such as retail trade and food services.

In this article, we examine the characteristics of SMEs that implemented digital solutions under the PSG scheme, and the type of solutions implemented during the period of April 2018 to June 2020.

Significant Increase in the Take-Up Rate of PSG-Supported Digital Solutions by SMEs

The number of SMEs adopting PSG-supported digital solutions has been increasing over the years, rising from a quarterly average of about 800 firms in 2018 to 4,000 firms in 2020 (Chart 1). In 2Q2020, about 6,100 SMEs adopted PSG-supported digital solutions, tripling the number of SMEs in the previous quarter (1,800).

CHART 1
NUMBER OF FIRMS ADOPTING PSG-SUPPORTED DIGITAL SOLUTIONS BY QUARTER³



Source: Infocomm Media Development Authority

1 SMEs (Small & Medium Enterprises) are defined as enterprises with operating receipts not exceeding \$100mil or employment of not more than 200.

2 Programme details are available on the IMDA website (<https://www.imda.gov.sg/SMEsGoDigital>).

3 Refers to the number of unique firms adopting PSG solutions within each quarter.

CHART 2

AVERAGE NUMBER OF PSG SOLUTIONS ADOPTED PER QUARTER BY SOLUTION TYPE ⁴, 2018– 2020



Source: Infocomm Media Development Authority

When the Circuit Breaker measures were implemented from 7 April to 1 June 2020 to contain the spread of the COVID-19 pandemic in Singapore, remote working arrangements became necessary to continue day-to-day operations for most businesses. In response to this, IMDA introduced Remote Working solutions in the month of April. The number of firms adopting these solutions accounted for more than 90% of the total increase in the number of PSG-supported digital solutions adopters in 2Q2020 over the previous quarter.

Growth in Adoption of PSG Solutions Across All Solution Types

Of the digital solutions taken up between the period of April 2018 and June 2020, Sales Management, Inventory Management and Customer Relationship Management were the most frequently adopted solutions, each accounting for about 20% of the total number of adoptions.

Despite only being introduced in April 2020, Remote Working solutions accounted for a significant share (15%) of the total. Workforce Management and E-Payments/E-Commerce solutions accounted for about 8% of the total each.

Across the years, all solution types registered a growth in the average number of solutions adopted per quarter. In particular, the number of adoptions for the top three types (Sales Management, Inventory Management and Customer Relationship Management) doubled from a quarterly average of 400 in 2018 to 800 in 2020 (Chart 2).

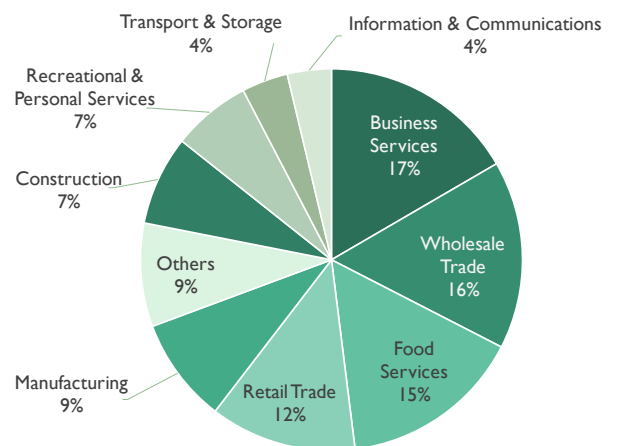
During the same period, accounts management solutions registered the largest growth in the number of solutions adopted, mainly due to a low base in 2018.

Industry Profile

Firms in Business Services, Wholesale & Retail Trade and Food Services Had the Most Adopters

Firms in the services sector accounted for more than 80% of those taking up PSG-supported digital solutions. Of which, the Business Services, Wholesale Trade, Retail Trade and Food Services industries accounted for more than two-thirds of all firms (Chart 3).

CHART 3
SHARE OF FIRMS IMPLEMENTING PSG SOLUTIONS, BY INDUSTRY



Source: Infocomm Media Development Authority, Singapore Department of Statistics

⁴ Excludes Remote Working solutions which was introduced in 2Q2020.

The implementation of digital solutions by firms in the Wholesale Trade, Retail Trade and Food Services industries were mainly for streamlining their operations and optimising resources, such as those related to managing sales, inventory and customer relationships. In line with the nature of their businesses, firms in the Wholesale Trade and Retail Trade industries also took up E-Commerce solutions, while firms in the Food Services industry implemented E-Payment solutions.

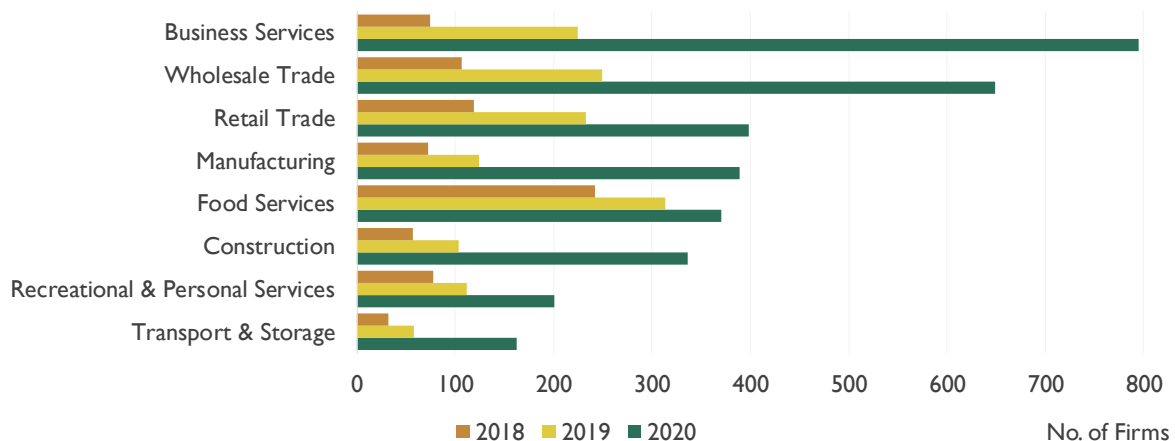
Largest Increase in Number of PSG Solution Adopters in Business Services and Wholesale Trade in 2020

All industries in the services sector registered an increase in the quarterly average number of adopters

in 2020 compared with that in 2018. In particular, the Business Services and Wholesale Trade industries registered the largest increases in the average quarterly number of adopters of 700 and 500 respectively during the period (Chart 4). The increases could be attributed to the implementation of Remote Working solutions.

On the other hand, while the Food Services industry had the highest number of PSG solution adopters in 2018 and 2019, the industry saw a smaller increase in 2020. This was mainly attributed to the relatively lower number of firms adopting Remote Working solutions in the Food Services industry as compared to other industries, as remote working arrangements may not be as relevant for the industry.

CHART 4
AVERAGE NUMBER OF FIRMS ADOPTING PSG SOLUTIONS PER QUARTER BY SELECTED INDUSTRIES, 2018-2020



Source: Infocomm Media Development Authority, Singapore Department of Statistics

Employee Size Profile

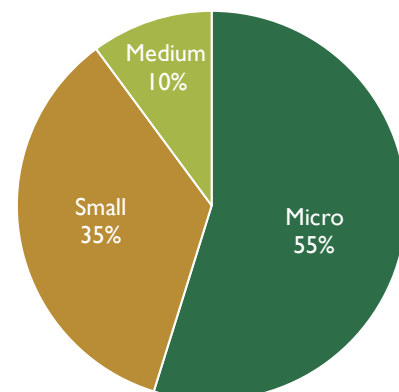
Micro firms accounted for majority of SMEs adopting PSG-supported digital solutions

In this article, we define the employee size categories as described in Chart 5. Between April 2018 and June 2020, majority of firms taking up PSG solutions were micro and small firms, accounting for 55% and 35% of total firms respectively (Chart 6).

CHART 5
EMPLOYEE SIZE CATEGORY⁵

Size Category	Number of Employees
Micro	≤ 10
Small	11 - 50
Medium	> 50

CHART 6
SHARE OF FIRMS IMPLEMENTING PSG SOLUTIONS, BY EMPLOYEE SIZE CATEGORY



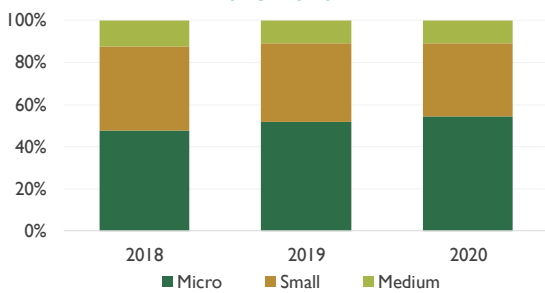
Source: Infocomm Media Development Authority, Singapore Department of Statistics

⁵ Employee sizes are defined as at the year of solution adoption.

Further analysis at the industry level revealed that the services industries had a larger proportion of micro firms among PSG solution adopters. For instance, micro firms accounted for 76% and 61% of PSG solution adopters in the Retail and Wholesale Trade industries respectively. On the other hand, the share of micro firms among PSG solution adopters in Manufacturing and Construction industries were significantly lower at 34% and 25% respectively. This could be attributed to the nature of the industries, which lead to the Retail and Wholesale Trade industries tending to have more micro firms than in the Manufacturing and Construction industries.

Across the years, the number of SMEs implementing PSG solutions increased across all employee size categories, with micro firms showing the highest growth rates. The number of firms adopting PSG solutions per quarter grew by five times for micro firms from 400 in 2018 to 2,100 in 2020. It tripled for small and medium firms over the same period. As a result, the proportion of micro firms adopting PSG solutions⁶ increased from 48% in 2018 to 54% in 2020, while the proportion of small and medium firms shrank from 52% to 46% (Chart 7).

CHART 7
SHARE OF FIRMS IMPLEMENTING PSG SOLUTIONS, BY EMPLOYEE SIZE CATEGORY AND YEAR, 2018-2020



Source: Infocomm Media Development Authority, Singapore Department of Statistics

Micro Firms Accounted for About 60% of PSG Adopters for Most Solution Types

In general, the employee size profile of the adopters was similar across most solution types, with micro firms accounting for about 60% which was relatively smaller compared to the overall business landscape (Chart 8). On the other hand, micro firms accounted for only a quarter of all firms taking up Workforce Management solutions, significantly lower compared to the other solution types. Firms with more than 10 employees accounted for 75% of Workforce Management solutions adopters as compared to about 40% for the other solution types. This suggests that firms with larger employee size are more likely to implement Workforce Management solutions since they have a greater need for such solutions.

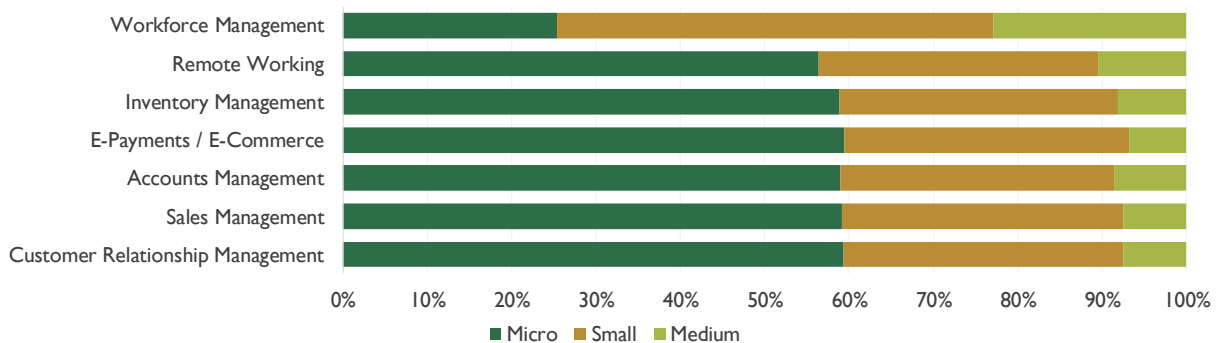
Concluding Remarks

The adoption of PSG-supported digital solutions grew steadily over the years, with the strong growth in 2020 largely attributed to the implementation of Remote Working solutions.

While the number of PSG solutions adopters increased across all industries from 2018 to 2020, the Business Services and Wholesale Trade industries registered the strongest growths. Micro firms accounted for the majority of adopters for most solution types, while Workforce Management was mostly implemented by larger firms.

Through initiatives such as the SMEs Go Digital programme that help SMEs remain competitive, the Singapore Government continues to support SMEs in the building of digital capabilities in the age of digitalisation.

CHART 8
SHARE OF FIRMS IMPLEMENTING PSG SOLUTIONS BY EMPLOYEE SIZE AND SOLUTION TYPE



Source: Infocomm Media Development Authority, Singapore Department of Statistics

⁶ Firms adopting multiple solutions in different years were counted in the respective years.