Prevalence of E-Payment in 2023

by **Goh Kheng Shyan** and **Chia Wai Yin**
Households Surveys and Expenditure Division
Singapore Department of Statistics

Accelerated Adoption of E-Payments

The adoption of e-payments has accelerated in recent years, driven by technological advancements, shifts in consumer preferences, and government-led initiatives. Today, consumers have access to a wide range of e-payment options. In addition to cards and General Interbank Recurring Order (GIRO), mobile payments (e.g., Apple Pay, Samsung Pay, and PayNow) and e-wallets (e.g., GrabPay, ShopeePay and DBS PayLah!) are now widely accepted in Singapore.

In tandem with the shift towards a more cashless society, more merchants and establishments have adopted e-payment systems. Besides retail establishments and restaurants, businesses that were traditionally cash-based, such as food stalls at hawker centres and neighbourhood shops, have begun accepting e-payments particularly following the introduction of Singapore Quick Response Code (SGQR) to simplify transactions.

With the variety and convenience of payment modes available, consumers are increasingly relying on e-payment methods. This article uses data from the latest Household Expenditure Survey (HES) [1] 2023 to analyse how households pay for their purchases and to track the shift towards greater adoption of e-payment over the years.

Household Adoption of E-Payments in the HES 2023

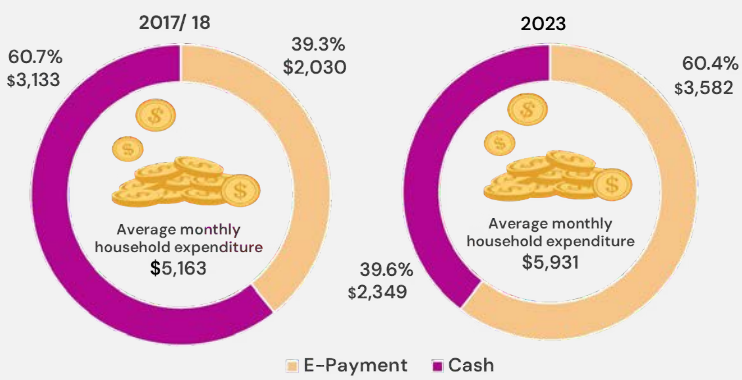
E-payments refer to purchases made using payment modes other than cash or cheques. These payments may be settled either in full or over multiple instalments, as seen in Buy-Now-Pay-Later schemes. Where distinguishable, payments made using Central Provident Fund (CPF), Child Development Account (CDA), and Edusave are also treated as e-payments.

For the HES 2023, respondents recorded their regular expenses such as broadband and mobile bills, school and tuition fees etc., and their daily expenses over a two-week period, including whether each purchase was made using e-payment. In addition, e-payment transactions for big-ticket items, such as overseas holidays and durable goods, were recorded via a 12-month recall.

In 2023, all resident households (100.0%) performed at least one e-payment transaction, unchanged from 2017/ 18.

About 60.4% of average monthly household expenditure or some $3,582 was paid via e-payment modes in 2023, up from 39.3% in 2017/ 18, reflecting the growing preference for e-payment methods (Chart 1).

Chart 1: Average Monthly Household Expenditure by Mode of Payment

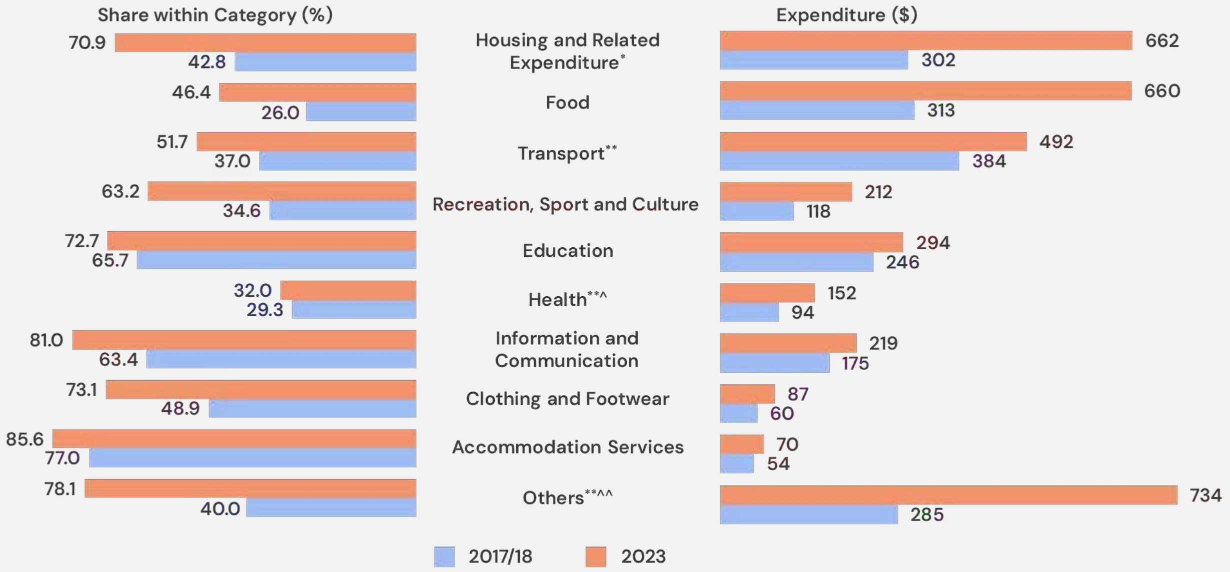


[1] The Household Expenditure Survey (HES) collects information among households in Singapore, on expenditure and socio-economic characteristics, as well as on ownership of consumer durables. The survey is conducted once every five years, with the most recent survey conducted in 2023.

E-Payment Increased Across All Expenditure Categories

Out of the $3,582 spent via e-payment, Food and Housing and Related Expenditure accounted for the largest shares. Specifically, $660 was spent on Food and $662 on Housing and Related Expenditure using e-payments. These two categories also saw the largest increases in e-payment expenditure from 2017/ 18 to 2023 [2]. Across all expenditure categories, the share of expenditure within each type of goods and services paid via e-payment likewise increased over the same period (Chart 2).

Chart 2: Average Monthly Household Expenditure* and Share Incurred via E-Payment by Type of Goods and Services



* Expenditure data exclude imputed rental of owner-occupied accommodation.

** Includes purchase of vehicles, operation of personal transport equipment, public road transport and other transport services such as passenger transport via air. Mode of payment for car purchases was not separately captured in the HES. As such, the amounts and shares of e-payment transactions for expenditure on car purchases and overall Transport were likely to be underestimated.

**^ Selected health expenditures (e.g., hospitalisation and specialised outpatient) were obtained from administrative data, where breakdown by mode of payment was not available. As such, the amount and share of e-payment transactions for these expenditure items were likely to be underestimated.

**^^ Others include expenditure on miscellaneous goods and services, including personal care services such as hairdressing and social services, expenditure on insurance and financial services, and expenditure on alcoholic beverages and tobacco.

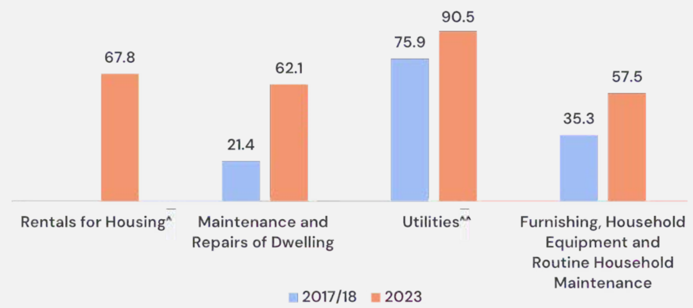
Housing

Housing and Related Expenditure comprises rentals for housing, maintenance and repairs of dwellings, utilities, as well as furnishing, household equipment, and routine household maintenance. More than two-thirds (70.9%) of Housing and Related expenditure was paid via e-payment modes (Chart 2).

The share of e-payment for Furnishing, Household Equipment and Routine Household Maintenance expanded from 2017/ 18 to 2023, reflecting a growing preference to use e-payments for big ticket purchases such as furniture and electrical appliances (Chart 3).

In 2023, the e-payment shares for household expenditure on Rentals for Housing and Maintenance and Repairs of Dwelling were 67.8% and 62.1% respectively.

Chart 3: Share of E-Payment by Type of Housing and Related Expenditure* (%)



* Expenditure data exclude imputed rental of owner-occupied accommodation.

^ The corresponding data for Rentals for Housing are unavailable for 2017/ 18 as the HES 2017/ 18 questionnaire did not collect the mode of payment for this expenditure item.

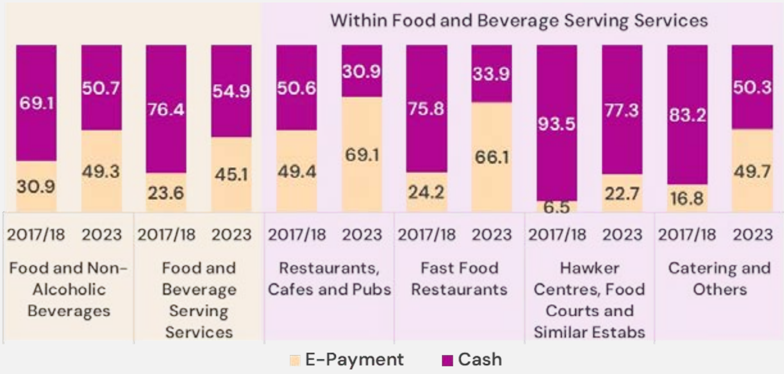
^^ Unless reported otherwise, the corresponding data for Utilities are treated as e-payment as digital payment modes are typically the preferred method for covering utility expenses.

[2] The higher Housing and Related Expenditure via e-payment in 2023 was partly attributed to improved questionnaire design, which was expanded to capture the mode of payment for Rentals for Housing and condominium maintenance fees. Breakdown was not available in 2017/ 18 for these expenditure items to classify as e-payment.

Food

Expenditure on Food comprises Food and Non-Alcoholic Beverages (which refers to food and drinks from supermarket, wet markets and similar shops) as well as Food and Beverage Serving Services (which refers to meals bought from Restaurants, Hawker Centres, Food Courts and Similar Establishments). In 2023, 46.4% of all food expenditure was paid via e-payment, a jump from 26.0% in 2017/ 18. About half (49.3%) of households' expenditure on Food and Non-Alcoholic Beverages were paid via e-payment modes, higher than the 45.1% for Food and Beverage Serving Services (Chart 4A).

Chart 4A: Share of E-Payment Expenditure by Type of Food Expenditure (%)

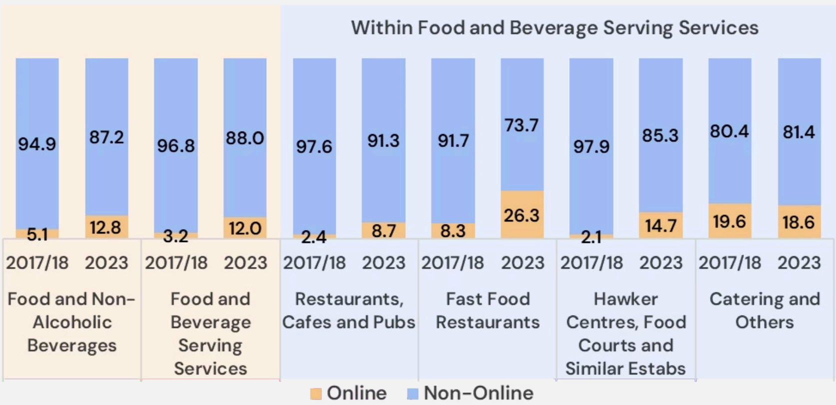


The share of households' e-payment expenditure on Food and Beverage Serving Services almost doubled from 23.6% in 2017/ 18 to 45.1% in 2023, indicating an increase in in the use of e-payment modes across various dining establishments.

Within Food and Beverage Serving Services, Restaurants, Cafes and Pubs continued to have the highest proportion of expenditure paid via e-payment, with 69.1% in 2023, up from 49.4% in 2017/ 18. Fast-Food restaurants experienced the largest increase in the proportion of e-payment expenditure, from 24.2% in 2017/ 18 to 66.1% in 2023. This likely reflects the widespread adoption of self-ordering kiosks and orders on mobile apps by fast-food chains in recent years. Hawker Centres, Food Courts, and Similar Establishments also registered a surge in proportion of e-payment expenditure, rising from a low 6.5% in 2017/ 18 to 22.7% in 2023 (Chart 4A). This growth could be driven by Government initiatives such as the Hawker Go Digital programme, which has encouraged greater adoption of digital payment platforms among hawkers.

E-payment made via online platforms (e.g., mobile ordering applications and food delivery application) saw signification growth from 2017/ 18 to 2023. However, this represented a relatively small share of e-payment expenditure for various Food and Beverage Serving Services, with proportions ranging from about 9% to 26% in 2023 (Chart 4B).

Chart 4B: Share of E-Payment Expenditure Made via Online and Non-Online Channels for Food and Beverage Serving Services (%)



Growing Preference for E-Payment Methods Across Age and Income Groups

The share of average household expenditure paid via e-payment increased for resident households across all age groups. Despite remaining the lowest adopters of e-payment, households comprising solely non-employed persons aged 65 years and over recorded a share of 43.8% in 2023, a significant increase from 28.3% in 2017/ 18 (Chart 5).

Similarly, among the remaining households with at least one employed person, households with household reference person aged 65 years and over had the lowest proportion of average monthly expenditure paid using e-payment at 53.6% in 2023, comparatively higher than the 33.1% in 2017/ 18. With more seniors becoming more familiar with newer e-payment methods, the proportion of average monthly expenditure paid using e-payment among these households is expected to continue to increase in the future.

Chart 5: Share of E-Payment Expenditure by Household Composition and Age of Household Reference Person (%)

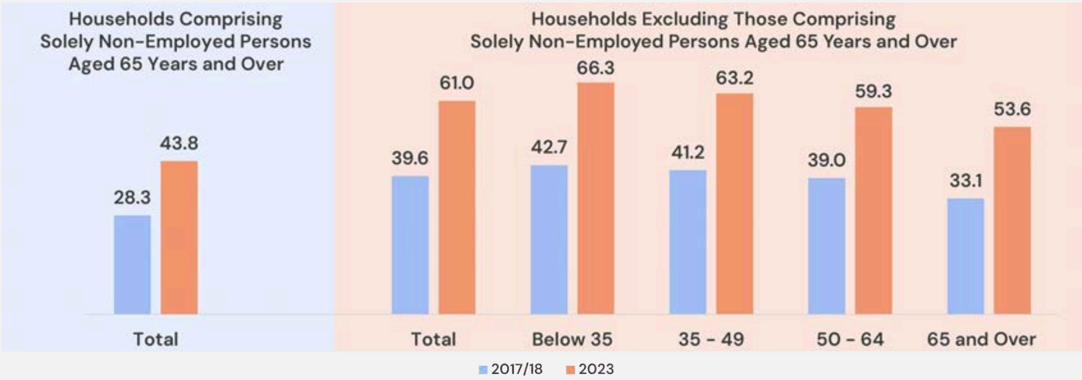
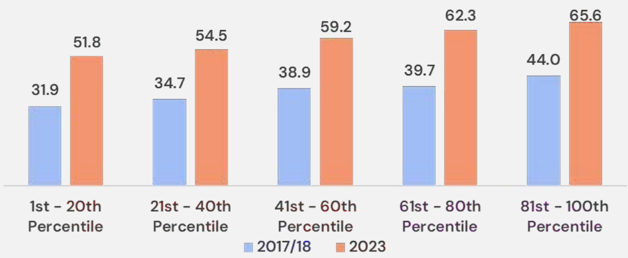


Chart 6: Share of E-Payment Expenditure by Income Quintile* (%)



* Based on the ranking of all resident households by their monthly household income from all sources per household member (including employer CPF contributions).

The share of average household expenditure paid via e-payment increased for resident households across all income groups. Households in the top income quintile had the highest share (65.6%) of average monthly household expenditure paid using e-payment (Chart 6). Households in the lowest income quintile had the lowest (51.8%), partly due to higher concentration of households comprising solely non-employed persons aged 65 years and over (30.7%) within this income group. Despite the relatively low share, this group has seen significant adoption of e-payment, up from 31.9% in 2017/ 18.

Conclusion

As Singapore continues its advancement towards a more digitally integrated payment landscape, the HES remains a valuable tool for providing timely and pertinent insights into the evolving lifestyles and spending behaviours of resident households. Findings from the HES 2023 revealed that e-payment transactions are becoming increasingly common among resident households, with the proportion of expenditure paid using e-payment for goods and services growing from 2017/ 18 to 2023. These transactions span various sectors, from food and beverages to retail, suggesting that ongoing efforts by the Singapore Government to encourage widespread cashless transactions have been successful. These findings also provide policymakers with valuable insights on the expenditure categories and demographic groups that could benefit from targeted policy moves to further encourage the adoption of digital transactions.

Keen to perform deeper analyses as a Researcher?

The HES datasets are accessible via DOS's Anonymised Microdata Access Programme (AMAP), which facilitates research using DOS anonymised microdata in a safe environment (DOS Innovation Data Lab).

Anonymised Microdata Access Programme

SingStat Website

Anonymised Microdata Access Programme (AMAP)

Eligible academic researchers can have access to selected datasets to address important research questions. The programme supports complex analyses like advanced econometrics and regression studies...