KHAZANAH RESEARCH INSTITUTE

VIEWS 45/24 | 9 DEC 2024

From Office to Home – Part 2: Insights Across Demographics

Theebalakshmi Kunasekaran and Shazrul Ariff Suhaimi

Introduction

Flexible working arrangements (FWAs) were globally adopted during the COVID-19 pandemic as a means to ensure business continuity amidst unprecedented challenges. Considering the work-life balance and productivity advantage they offer, these arrangements have persisted beyond the pandemic and thus not only reshaped traditional workplace practices but also influenced household expenditures associated with working from home (WFH).

Three key categories from the Household Expenditure Survey (HES) can be used to gauge WFH expenditure trends: 'Housing & Utilities', 'Furnishings & Household Maintenance', and 'Information and Communication Technologies'. The first article in this series, "*From Office to Home—Part 1: Impacts on Household Spending*," analysed these categories to evaluate how WFH trends affected household spending patterns.

Views are short opinion pieces by the author(s) to encourage the exchange of ideas on current issues. They may not necessarily represent the official views of KRI. All errors remain the authors' own.

This view was prepared by Theebalakshmi Kunasekaran and Shazrul Ariff Suhaimi, researchers from the Khazanah Research Institute (KRI). The author is grateful for the valuable comments from Puteri Marjan Megat Muzafar and Dr Teoh Ai Ni.

Author's email address:
theebalakshmi.kuna@krinstitute.org
shazrul.suhaimi@krinstitute.org

Photo by charlesdeluvio on Unsplash.

Information on Khazanah Research Institute publications and digital products can be found at www.KRInstitute.org.

Demographic characteristics play a crucial role in influencing overall WFH expenditures, as there is a large variance in demand based on factors such as geographic location, income levels, occupation, and many more. In this second part of the "*From Office to Home*" series, we examine how these demographic characteristics drive differences in WFH-related spending, shedding light on the diverse financial impacts of WFH on households across different strata, income levels, and occupations.

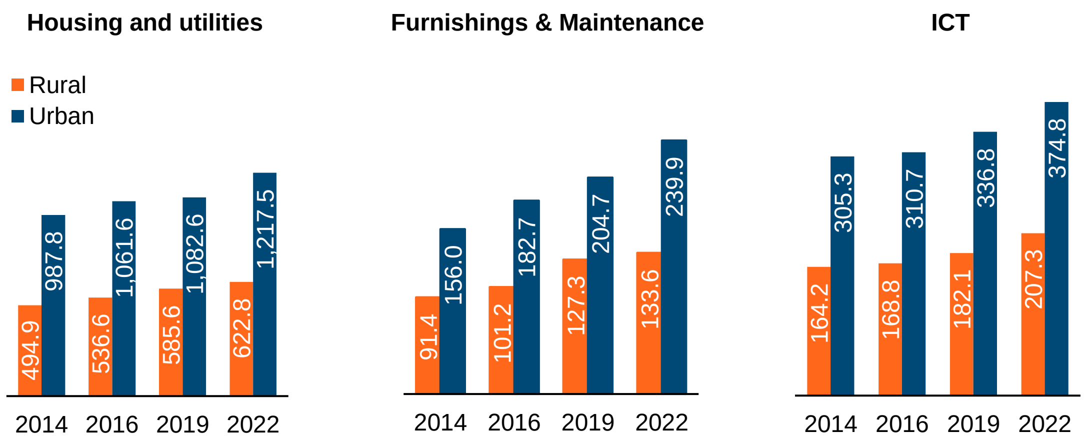
Work From Home Trends by Demographic Characteristics

Strata

Examining expenditures by strata provides insights into the demand for WFH categories among urban and rural households. As demonstrated in Figure 1, urban households consistently incur higher expenditures across all WFH categories, spending nearly twice the amount spent by their rural counterparts.

For housing and utilities (H&U), the spending gap in real terms between urban and rural households has widened over the years, reaching its largest disparity of approximately RM595 during the pandemic period (2019-2022). This difference is expected as house prices and rental rates are usually higher in urban areas than in rural regions. Additionally, urban households also benefit from greater access to better utilities and housing infrastructure in urban areas, contributing to a higher quality of life. However, these benefits come with a higher cost of living, resulting in greater expenses in this category for urban residents.

Figure 1: Real WFH expenditures by strata, 2014 – 2022



Source: DOS (2015); DOS (2017); DOS (2020); DOS (2023) and KRI calculations.

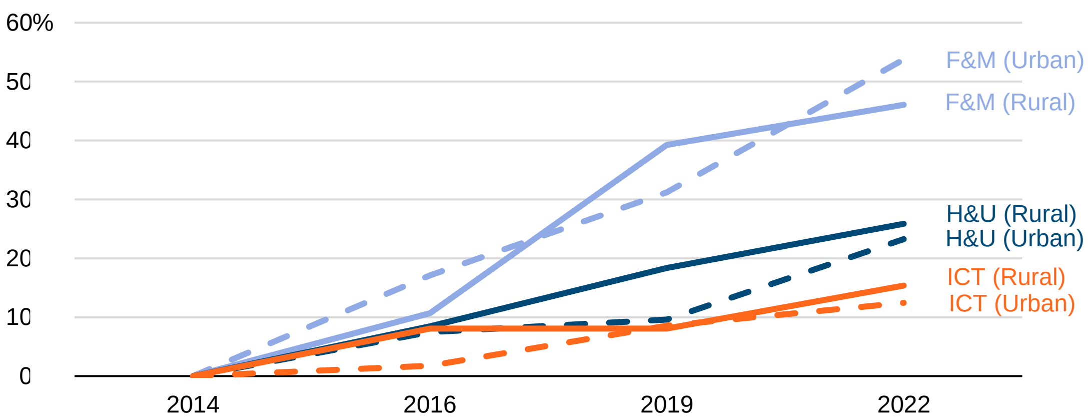
For furnishings and household maintenance (F&M), the urban-rural expenditure gap widened to over RM100 in 2022 compared to RM77 in 2019. While rural households experienced a higher real growth of 26% in F&M expenditures prior to the pandemic (2016-2019), they significantly curtailed spending during the pandemic, recording only a 5% growth. This suggests that rural households might have been prioritizing their spending on other urgent needs during the pandemic. In contrast, urban households maintained higher spending levels, reflecting their continued investment in home improvements during this period.

Similarly, urban-rural disparity within ICT expenditure has also continued to grow, reaching its peak of RM167.5 in 2022. This is primarily due to the higher demand that urban households have as the nature of work, and their lifestyle is inherently different from rural households. This may include requiring stable and constant internet connections to support remote work and online learning, alongside higher usage or number of electronic devices owned, contributing to increased ICT expenditure among this cohort.

Figure 2 shows the changes in real WFH expenditures recorded by urban and rural households since 2014. While urban households continue to spend more on H&U overall, rural households have steadily increased their spending on H&U, with a 26% growth since 2014. This trend reflects ongoing improvements in living standards and infrastructure in rural areas.

However, the pandemic had a more pronounced impact on real H&U spending for urban households compared to rural households. Between 2019 – 2022, urban households experienced a 12.5% real increase in H&U expenditure, nearly double the 6.3% growth recorded by rural households. This disparity in H&U expenditure between rural and urban households may also be attributed to the shift to remote work among urban households, which required additional spending on utilities and home enhancements to accommodate new WFH arrangements.

Figure 2: Change in real WFH expenditure since 2014 by strata, 2014 – 2022



Source: DOS (2015); DOS (2017); DOS (2020); DOS (2023) and KRI calculations.
Note: Real expenditure is expressed in 2015 prices.
F&M = furnishing & maintenance, H&U = housing & utilities, ICT = information & communication technologies.

Similarly, F&M expenditures saw the highest growth among urban households, increasing by 54% from 2014 to 2022, including a notable surge of 17.2% post-pandemic. Based on further analysis, urban households showed strong growth in ownership of household equipment, particularly in water filters (17.7%) and microwaves (14.6%), compared to rural households which recorded growth rates of 17.0% and 6.1%, respectively[1]. This increase reflects the increased focus on home improvement and utilities during the pandemic, likely driven by increased cooking and prolonged time spent at home.

[1] KRI (2024)

In contrast, the surge in WFH-related spending among rural households is more pronounced in ICT expenditure. Rural spending on ICT nearly doubled during the pandemic period, with growth rising from 8% in 2019 to 15% in 2022. This growth is attributed to the efforts taken to reduce the digital divide that exists between urban and rural areas. For instance, in 2019, only 50.1% of rural households had access to computers and 84.1% owned smartphones, compared to 76.6% and 92.8% among urban households, respectively[2]. While the figures show improved digital access for rural households, this has also effectively increased the financial burden on rural households, which generally report lower household incomes than urban households.

While the pandemic led to a greater increase in ICT expenditures among rural households, this higher spending is still constrained by existing issues related to inadequate digital infrastructure including limited network coverage and slow internet speeds as well as limited access in rural communities due to insufficient 4G deployment in remote, under-developed areas[3].

Income

Figure 3 illustrates the spending patterns on WFH-related categories among households of different income groups, ranging from Decile 1 (D1, representing the bottom 10% of households) to Decile 10 (D10, representing the top 10% of households). Examining expenditure patterns according to income groups will give us additional insight into the priorities of each household income group at that time.

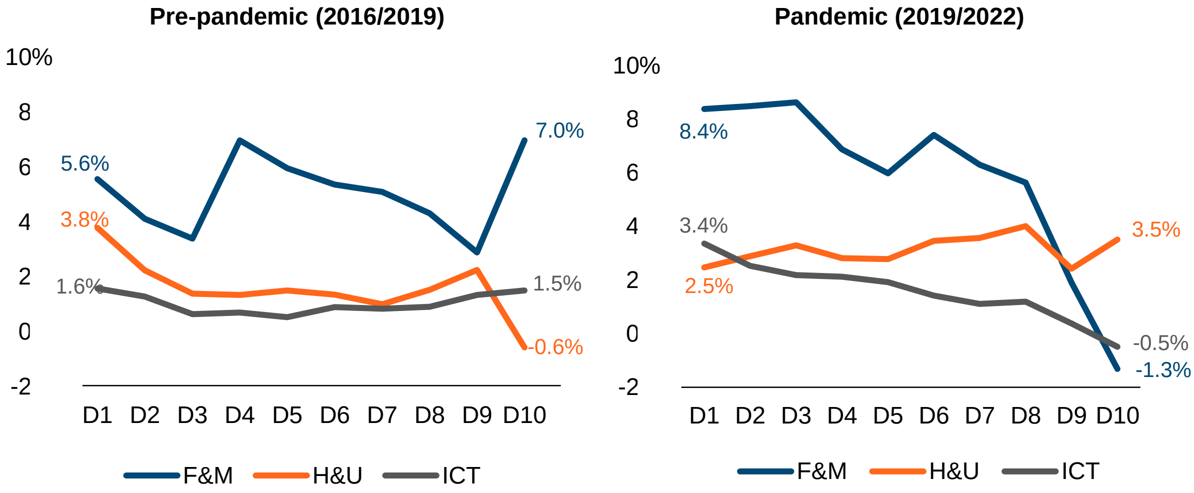
During the pandemic, households have prioritized housing-related investments, especially high-income households. D10 households recorded the highest growth rate, with CAGR rising from -0.6% in the pre-pandemic period to 3.5% during the pandemic years. This increase likely reflects a shift in spending priorities, with higher-income households allocating resources toward housing-related improvements or investments as part of prioritizing savings and investments during the pandemic years.

Meanwhile, F&M expenditures showed more variation across income groups. Before the pandemic, all income deciles reported positive growth, ranging from 2.8% to 7.0%. However, spending patterns diverged across income groups during the pandemic. Lower-income households (D1 – D3) experienced the highest growth in F&M expenditures, with a CAGR exceeding 8%. This likely reflects efforts to improve their living standards or meet additional needs for household furniture and equipment.

Conversely, higher-income households, particularly those in D10, recorded a decline in real F&M spending, with a negative real growth of 1.3%, marking an 8.3 percentage points drop from pre-pandemic levels. This suggests that many high-income households may have already owned the necessary items for remote work, virtual learning, and extended stays at home, reducing the need for additional spending. Moreover, these households may have reallocated spending to other other expenses or urgent needs during the crisis such as food away from home or other lifestyle adjustments.

[2] KRI (2024)
[3] Gong (2020)

Figure 3: Growth in real WFH expenditures by income decile, 2016 - 2022



Source: DOS (2017); DOS (2020); DOS (2023) and KRI calculations.

Note: F&M = furnishing & maintenance, H&U = housing & utilities, ICT = information & communication technologies.

During the pre-pandemic period, ICT expenditure growth across all income deciles was largely similar. However, the pandemic period of 2019 – 2022 revealed a shift in trend. The bottom 10% of households (D1) had the highest CAGR growth at 3.4%, while the top 10% of households (D10) showed a decline of 0.5%. This may be attributed to the reduced cost of internet or communication packages, which reduced the existing ICT costs for higher-income households. Meanwhile, lower-income households, many of whom may not have previously owned these products prior to the pandemic, were essentially forced to increase their spending on ICT products and services to accommodate for increased digital communication needs during the pandemic.

Occupation

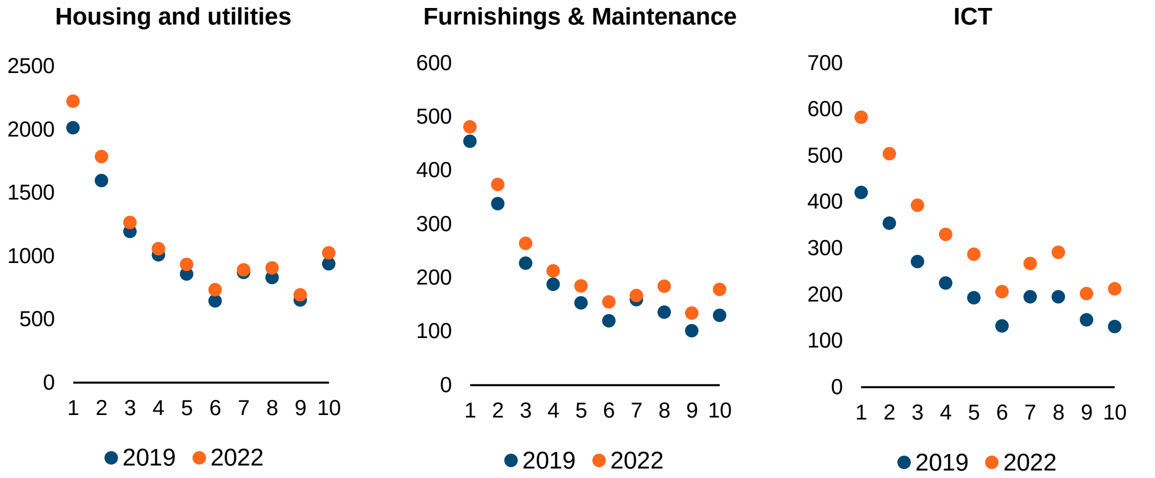
A comparative analysis of WFH expenditures across occupational categories provides insights into how employment status or professions influence household spending related to WFH arrangements. Figure 4 illustrates the nominal expenses incurred by heads of households across different occupational roles for all three WFH categories.

The data shows minimal differences in F&M expenditures across occupational groups before and after the pandemic. However, households headed by individuals in managerial and professional roles reported a notable increase of approximately RM200 in H&U expenditures between 2019 and 2022.

ICT expenditures demonstrated the most significant changes across all occupational categories. Households headed by skilled workers, such as managers (code 1) and professionals (code 2), reported the largest increases, with an average additional spending of RM150 or more in 2022 compared to 2019. Other occupational groups recorded smaller increases, ranging from RM50 to RM130.

This disparity indicates that WFH arrangements were more accessible to skilled workers, whose professions were better suited to remote work than low-skilled workers, such as those in elementary occupations. Moreover, skilled workers have relatively higher earnings and thus are able to spend more on ICT-related expenses than their low-skilled counterparts.

Figure 4: Nominal WFH expenditures by occupational codes, 2019 - 2022



Source: DOS (2017); DOS (2020); DOS (2023) and KRI calculations.
Note: List of occupational codes – Code 1: Managers, Code 2 – Professionals, Code 3 – Technician and associate professionals, Code 4 – Clerical support workers, Code 5 – Services and sales workers, Code 6 – Skilled agricultural, forestry and fishery workers, Code 7 – Craft and related trades workers, Code 8 – Plant and machine operators and assemblers, Code 9 – Elementary workers and Code 10 – Others.

The widespread increase in ICT spending across all occupational groups underscores the pivotal role of digital tools in facilitating flexible working arrangements and adapting to modern lifestyles. The surge in ICT expenditures during the pandemic highlights the prevalence of WFH practices across various occupations and sectors, driving higher demand for ICT resources such as work devices and internet services to support remote work effectively.

Concluding Remarks

As highlighted in Part 1 of this series, higher expenditures in WFH categories of H&U, F&M and ICT reflect the behavioural changes of Malaysian households during the COVID-19 pandemic. Although the sharp increases in the WFH categories among certain demographic groups have returned to pre-pandemic trends, certain attitudes regarding WFH have remained.

Statistics from "*2024 Workmonitor Research in Malaysia*" by Randstad revealed that two in five Malaysian employees are willing to resign if t required to work at the office more frequently. This sentiment is found to be stronger among younger employees, with nearly half of Gen Z (49%) and Millenials (47%) expressing opposition to inflexible work arrangements[4].

This opposition is attributed to pandemic-induced lifestyle changes driven by the rise of WFH arrangements. For instance, some households have relocated to bigger and more affordable houses, which are usually located in sub-urban areas, assuming that they can save on transportation costs with FWAs. But, with the shift back to office-based work, such households are likely to face rising transportation expenditures. According to the same Randstand survey, 40% of respondents have taken measures such as relocation under the assumption that FWA

[4] Randstad (2024)

would remain post-pandemic[5]. This might contribute to an additional financial burden on households if FWAs are scaled back.

Furthermore, government policies such as the anticipated fuel subsidy rationalisation next year are expected to exacerbate cost-of-living concerns. For these households living farther from their workplaces, the combination of increased transportation costs and reduced fuel subsidies may prompt stronger advocacy for continued FWAs to balance the rising expenses.

References

DOS. 2011. "Report on Household Expenditure Survey 2009/10." Putrajaya: Department of Statistics Malaysia.

———. 2015. "Report on Household Expenditure Survey 2014." Putrajaya: Department of Statistics Malaysia.

———. 2017. "Report on Household Expenditure Survey 2016." Putrajaya: Department of Statistics Malaysia.

———. 2020. "Household Expenditure Survey Report 2019." Putrajaya: Department of Statistics Malaysia.

———. 2023. "Household Expenditure Survey Report Malaysia 2022." Putrajaya: Department of Statistics Malaysia.

Gong, Rachel. 2020. "Malaysia's Response to COVID-19: Mobile Data and Infrastructure." LSE. https://blogs.lse.ac.uk/seac/2020/11/23/malaysias-response-to-covid-19-mobile-data-and-infrastructure/.

Hays. 2024. "The 2024 Hays Asia Salary Guide - Rising above Challenges: Powering Growth." https://image.email.hays.com/lib/fe4315707564057c751c71/m/1/5dd3e86f-30a4-41e1-a69e-09493664e109.pdf.

KRI. 2024. "Households and the Pandemic 2019-2022: The State of Households 2024." Kuala Lumpur: Khazanah Research Institute. https://www.krinstitute.org/assets/contentMS/img/template/editor/[WEBSITE]%20SoH%202024%20Report%20FINAL%20v2.pdf.

Randstad. 2024. "2024 Workmonitor Research in Malaysia." ity-2024-workmonitor-malaysia/#Anchor.

[5] Randstad (2024)