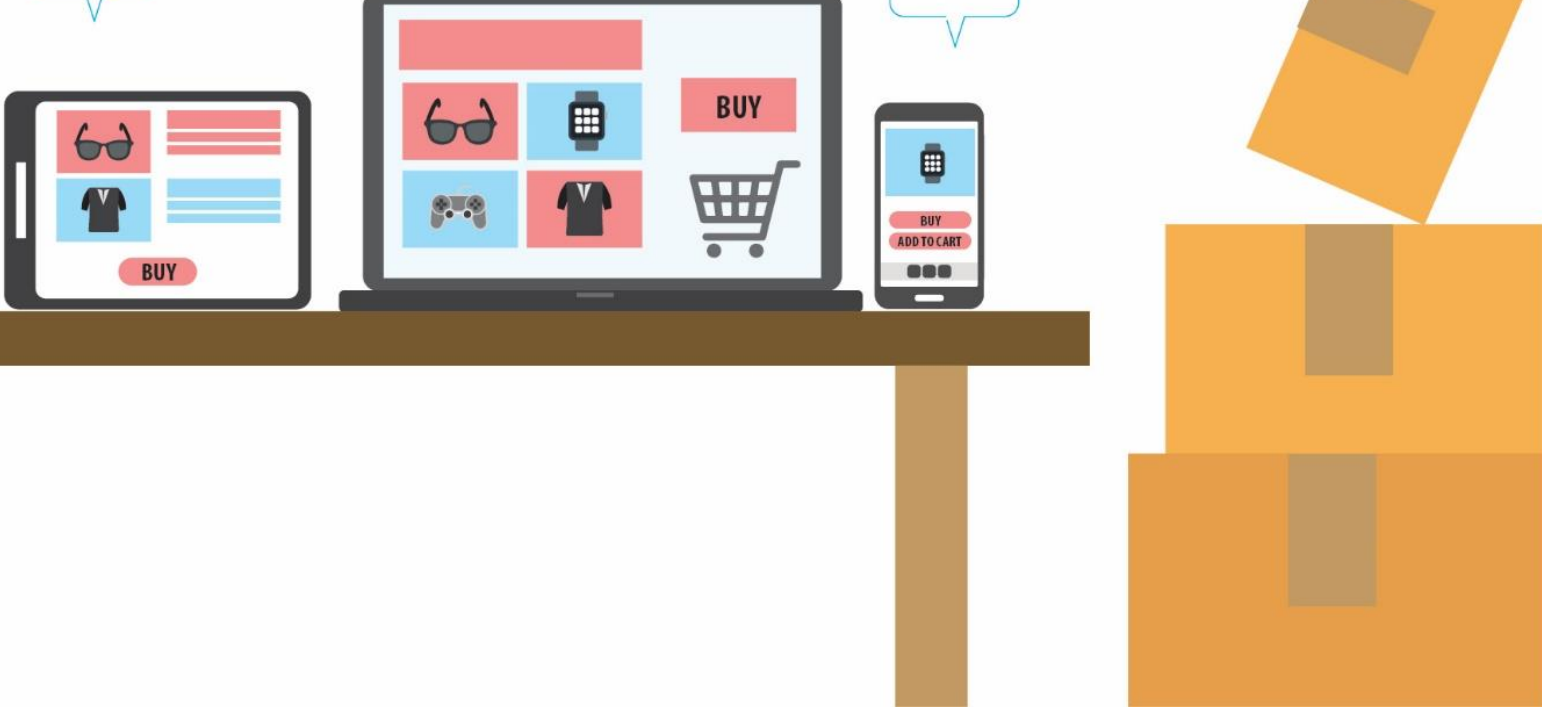
SURUHANJAYA KOMUNIKASI DAN MULTIMEDIA MALAYSIA
MALAYSIAN COMMUNICATIONS AND MULTIMEDIA COMMISSION

e-Commerce Consumers Survey 2022 (ECS 2022)



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SECTION 1: EXECUTIVE SUMMARY

The e-Commerce Consumers Survey 2022 (ECS 2022) is the second edition survey conducted by Malaysian Communications and Multimedia Commission (MCMC) following e-Commerce Consumers Survey 2018. This survey covers proportion of e-Commerce consumers in Malaysia, their characteristics and behaviour trends, as well as the effects of Movement Control Orders (MCO) on e-Commerce trends.

ECS 2022 reached 1,318 respondents with a confidence level of 97% and precision of ±3%. The survey was conducted online, leveraging Pusat Ekonomi Digital (PEDi), MCMC's social media and service providers' websites.

The survey's key highlights are as follows:

i. E-Commerce consumers have increased to 78.3% in 2022. Though e-Commerce consumers rose, hesitance towards e-Commerce were most likely to come from people living in rural areas suggesting a gap in connectivity and accessibility for e-Commerce;
ii. The majority of consumers preferred shopping online through smartphones and were notably influenced by various aspects of social media;
iii. Growing concerns about Internet security and privacy, coupled with a rise in consumer-reported fraudulent activities, underscore the pressing need to bolster Internet security and privacy awareness. Implementing proactive measure can substantially elevate the e-commerce experience; and
iv. While the MCO accelerated the growth of the e-Commerce market by compelling people to shop and sell online due to restricted mobility, it resulted in delivery delays attributed to the surge in courier traffic.

SECTION 2: INTRODUCTION

BACKGROUND OF SURVEY

ECS 2022 is a series of purpose-built survey conducted by MCMC. This is consistent with MCMC's regulatory goal of conducting market research, which is accomplished by collecting insight on the behaviours of e-Commerce consumers and identifying recent trends of online consumption in Malaysia. Data gathered from this survey could assist in MCMC's internal and external stakeholders to support their policy development needs.

SCOPE

ECS 2022 distinguishes between core data and trends data. Core data will be collected yearly for time series analysis and trends data is based on topical e-Commerce consumers' behaviours peculiar during the survey period. Specific requests from internal stakeholders were considered during the process of developing questionnaires. Figure 1 below illustrates the core and trend data captured in ECS 2022:

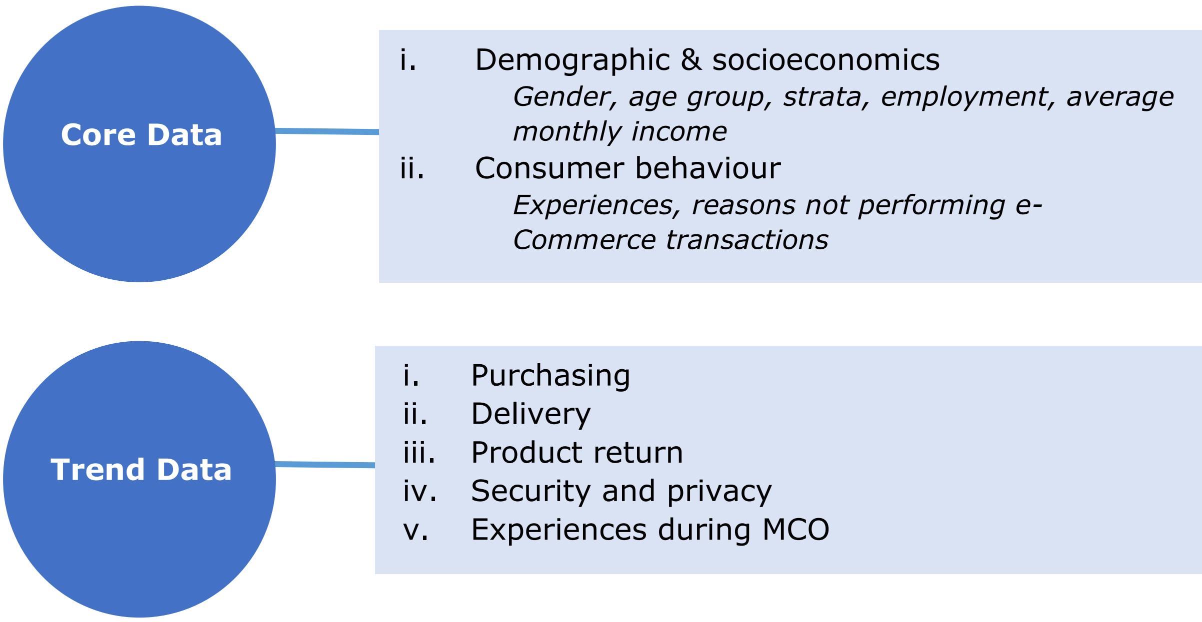


Figure 1: Scope of ECS 2022

LIMITATIONS AND CHALLENGES

While conducting this survey, some limitations and challenges were encountered. One of them was the difficulty to reach required number of samples within the timeline due to nature of online survey that contributed to relatively low take up rate. For this survey, the questionnaire was distributed to a total of 3,397 potential respondents. Nonetheless, only 1,318 respondents completed the survey indicating of 38.8% success rate. Since the fieldwork was done during the MCO, more proactive measures such as in-person interviews and physically distributing the questionnaire could not be done to increase the take up rate.

In addition, since the survey adopted stratified random sampling instead of simple random sampling, fulfilling the quota for each stratification was a challenge.

SECTION 3: METHODOLOGY AND DATA ANALYSIS

METHODOLOGY

The sample population was drawn from the stratification of population from Department of Statistics, Malaysia (DOSM). The stratification was broken down into two strata which included gender and age group. The stratification was taken into consideration to ensure the sample distribution is proportionate to the population published by DOSM. The definitions of terminologies adopted in this survey were referenced to the international standards and existing frameworks.

This survey was conducted using MCMC secure online portal, and respondents were provided with links to the questionnaire, which can be viewed from a variety of internet platforms including smartphone, Internet-enabled feature phone, desktop, laptop, and tablet. The fieldwork was also supported by Pusat Ekonomi Digital (PEDi) personnel throughout Malaysia, who circulated the survey link to all possible respondents. Completed responses were recorded in the online portal database.

The fieldwork for ECS 2022 started on 22 April 2021 and ended on 21 February 2022. The survey adopted confidence level of 97% and precision level of ±3% to reach a sample of 1,318 e-Commerce consumers.

DATA ANALYSIS

Basic frequency count was computed to assess the results pattern. Cross-tabulation between relevant indicators was done to identify significant relationships that would deduce meaningful inferences pertinent to the objectives.

Important findings are featured in the form of a report, complemented with supporting charts and tables for the convenience of readers. Findings on current trends were analysed against evolutions that took place around the world. Information from external sources is included as supplementary data to support the findings.

The data has been weighted to match nationality (Malaysian and non-Malaysian) and ethnicity distribution, where the 2020 mid-year population estimates from DOSM serves as the auxiliary information as follows:

Table 1: Population estimates 2020

Background characteristic	Percent
Malaysian	**90.9**
Malay	*51.4*
Chinese	*20.6*
*Other Bumiputera**	*11.9*
Indian	*6.2*
Others	*0.9*
Non-Malaysian	**9.1**

**Other Bumiputera includes Bumiputera Sabah/Sarawak and Orang Asli*

Finally, full results of the survey were appended in the form of percentage tables at the end of the report.

Fieldwork for this survey ended in the first quarter of 2022, hence only first quarter 2022 findings are represented in all data analysis and survey results.

DEFINITION

E-Commerce

Organisation for Economic Co-operation and Development (OECD) defines an e-Commerce transaction as the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders[1]. The goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online[2]. It includes orders made in web pages, extranet or Electronic Data Interchange (EDI). The type is defined by the method of making the order. It excludes orders made by telephone calls, facsimile, or manually typed e-mail[3].

E-Commerce transactions includes those conducted on e-Commerce website, retailer's website, social media and messaging applications.

[1] OECD Guide to measuring the Information Society 2011
[2] E-commerce in the World Trade Organization
[3] Brief on e-commerce in Africa

E-COMMERCE EXPERIENCE

E-COMMERCE CONSUMERS

The survey determined that the percentage of e-Commerce consumers in Malaysia for 2022 stood at 78.3%, an increase of 27.1 percentage points (pp) from 2018. The increase can be attributed to the growth of technology and connectivity as well as the ramifications of restrictions due to COVID-19 pandemic throughout these past few years. In comparisons with other countries within the region, Malaysia is third behind Indonesia (87.1%) and Thailand (83.6%) as reported by Statista[4]. Approximately, there were 25.9 million[5] e-Commerce consumers in 2022. Of which, 80.8% respondents claimed to be online shoppers only, 16.7% were online shoppers and sellers and the remaining 2.6% claimed to be seller only.

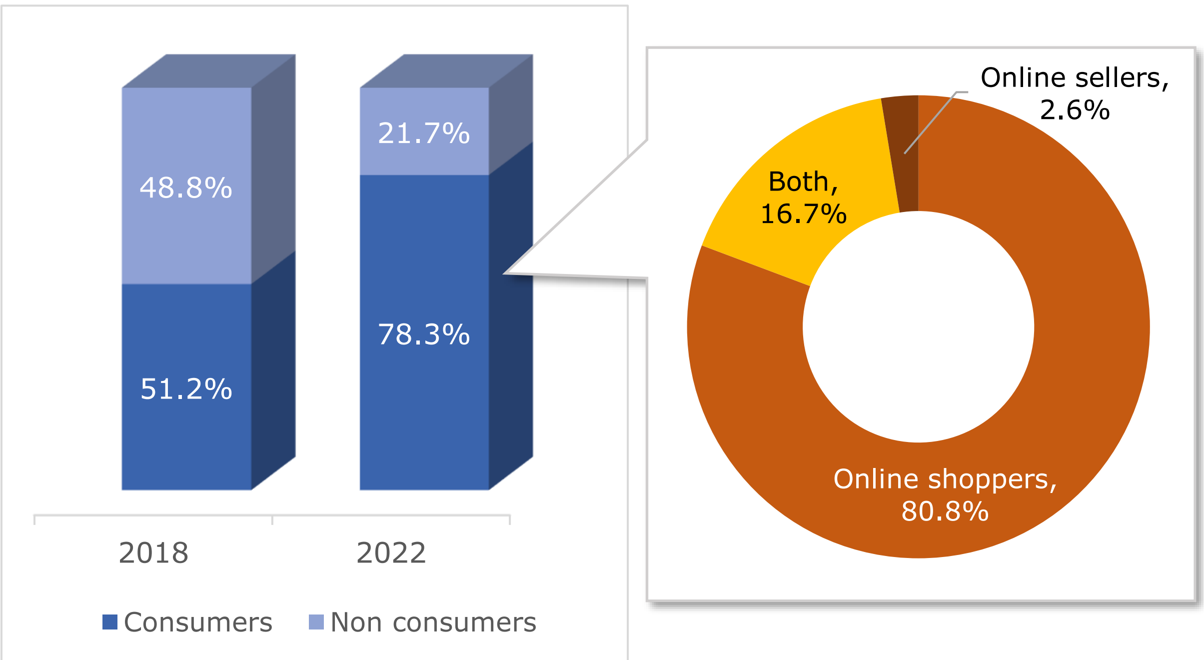


Figure 2: Percentage of e-Commerce consumers

[4] Source: Statista, "E-commerce in the Asia-Pacific region", 2021 (The methodology used may vary)
[5] Computed based on Population Estimates, Malaysia, 2022, Quarter 1

e-Commerce awareness in Malaysia was relatively high, with 91.1% of respondents claiming to have knowledge about e-Commerce. Additionally, 90.7% reported having visited an e-Commerce platform, such as a website or mobile app, within the last six month (Figure 3).

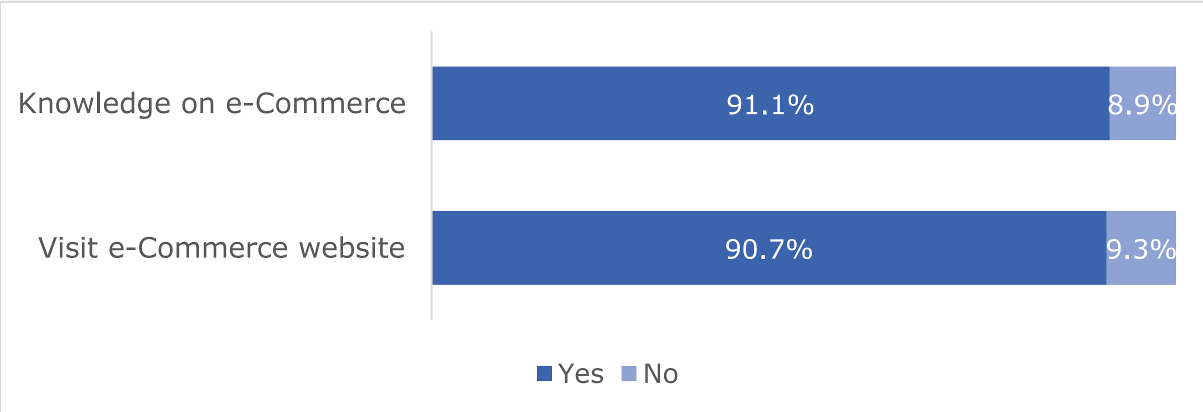


Figure 3: Percentage distribution on knowledge of e-Commerce and experiences in visiting e-Commerce website

The adoption of e-Commerce was primarily seen among adults in their 20’s, 30’s and 40’s accounting for 83.7%, 84.9% and 81.0% respectively.

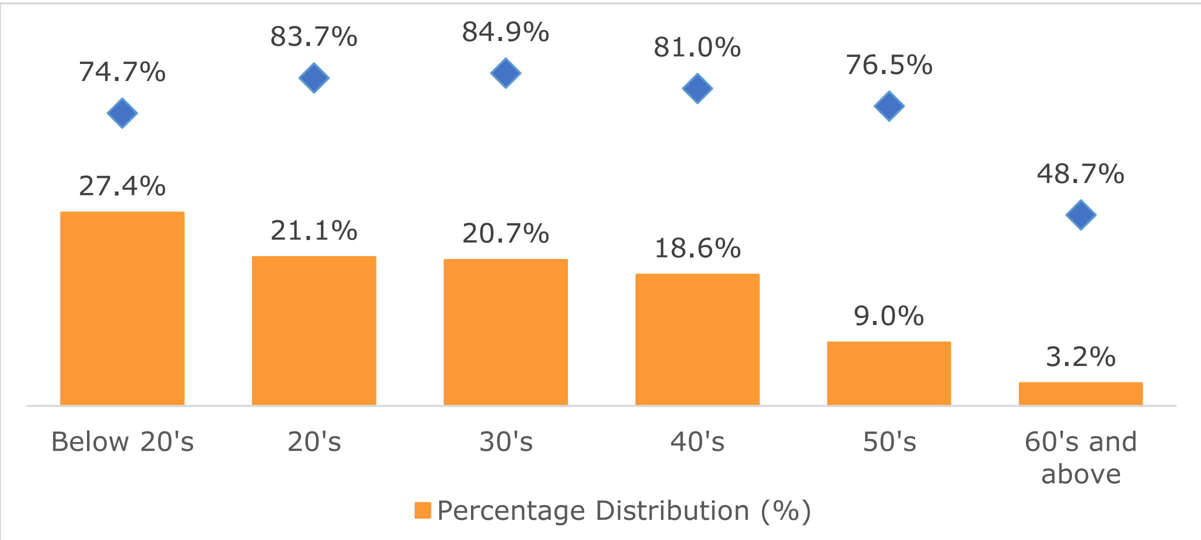


Figure 4: Percentage distribution of e-Commerce consumers and adoption rate by age

NON E-COMMERCE CONSUMERS

Despite the rise in e-Commerce adoption, 21.7% of respondents mentioned that they did not engage in any e-Commerce activities.

According to the survey, the main reason for not engaging in any e-Commerce activities is a lack of knowledge, confidence, and skills (29%). Other reasons cited by respondents include a preference for physical stores (21.3%) and a lack of interest in e-Commerce activities (18.0%).

Furthermore, 17.2%, 16.9%, and 13.6% of respondents did not engage in any e-Commerce activities due to trust, security, and privacy concerns. These concerns stemmed from fears of identity theft/hacking (37.7%), transferring banking/credit card information online (32.2%), and unauthorized charges on bank accounts/credit cards (30.1%).

Other factors include unstable internet connectivity (9.3%), delivery concerns (8.9%), unpleasant experience with online shop (7.5%), do not have postage address (6.3%), complicated website navigation (0.8%), and health and hygiene concerns (0.8%).

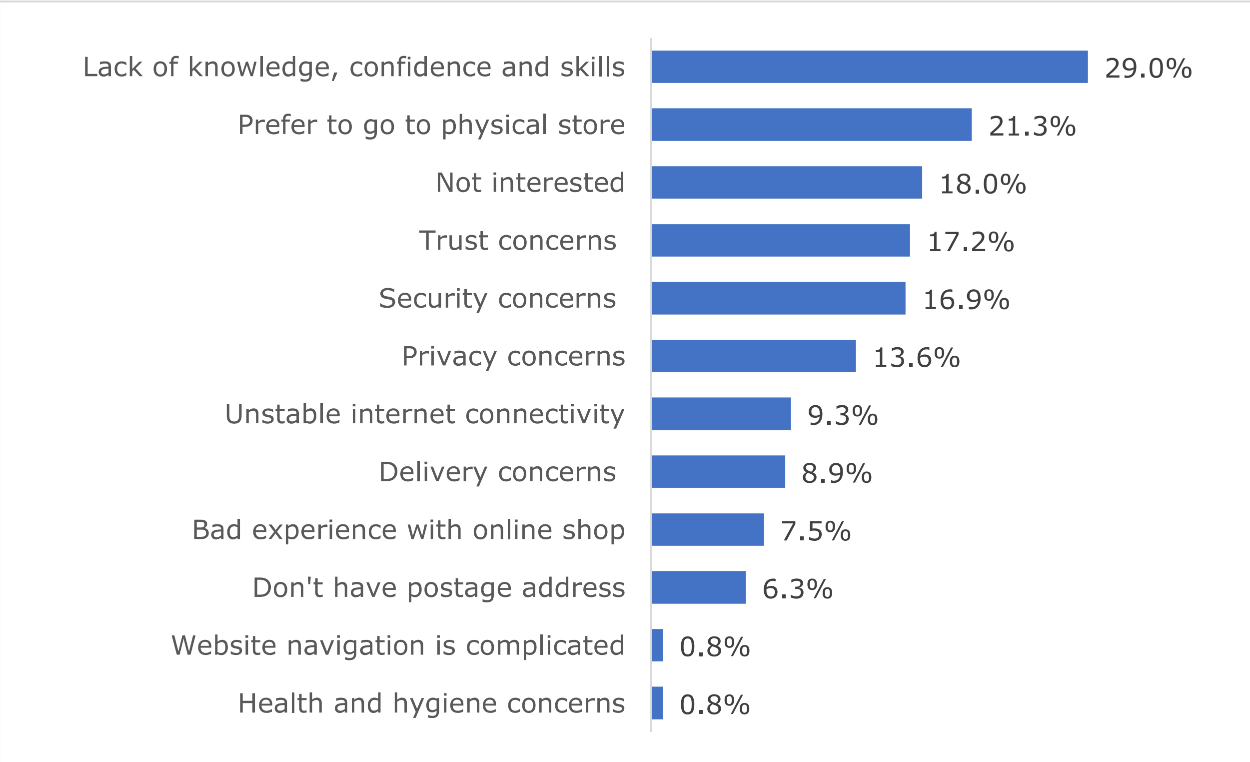


Figure 5: Reasons for not conducting e-Commerce activities

It was observed that factors like lack of knowledge, confidence and skills were more prevalent among non e-Commerce consumers residing in rural areas compared to those in urban areas (71.4% versus 28.6%). Similar trends were observed for factors related to unstable connectivity (86.2% versus 13.8%)

Additionally, the data indicates that non e-Commerce consumers who expressed a lack of knowledge, confidence, and skills were more prevalent among those under the age of 20 (49.5%) and those aged 60 and above (13.8%). Similarly, non e-Commerce consumers who prefer in-person shopping were more common among those aged 20 to 30 (61.9%).

PURCHASING

MOTIVATION FOR ONLINE SHOPPING

The survey further delves into the motivation of consumers for online shopping. Results show that among the main drivers for online shopping includes pricing, convenience, variety of products, delivery options and ease of payments.

Eight out of ten shoppers (82.8%) cited that pricing factor was the main motivation for online shopping. Online sellers are now even more creative when it comes to pricing strategies by offering online discounts, holiday sales, etc. Hence, consumers have better options for lower prices online.

More than three-quarters of online customers (79.7%) said convenience was one of the primary reasons they shopped online. Respondents were drawn to the Internet buying because of the convenience and accessibility of shopping on the go.

In addition, with the ability of consumers to search for any product online, 59.1% of respondents cited variety of products as one of the motivations towards online shopping.

Moreover, price comparison platforms such as Trivago, PriceGrabber, etc. exist to enhance product research by offering comparisons of products and prices across different retailers. Consequently, shoppers gain access to a wide array of online stores that offer a much larger selection of products compared to physical stores.

Figure 6 illustrates that 89.8% of respondents claimed to have conducted research on products before they proceed for online shopping, a slight increase of 2.6 pp from 2018 (87.2%). For product research, 61.6% used social media, 52.0% used retailer's website, 46.5% used search engine and 2.0% used other platforms such as social messaging apps, mass media, and government agency websites (i.e., Kementerian Kesihatan Malaysia (KKM) Quest).

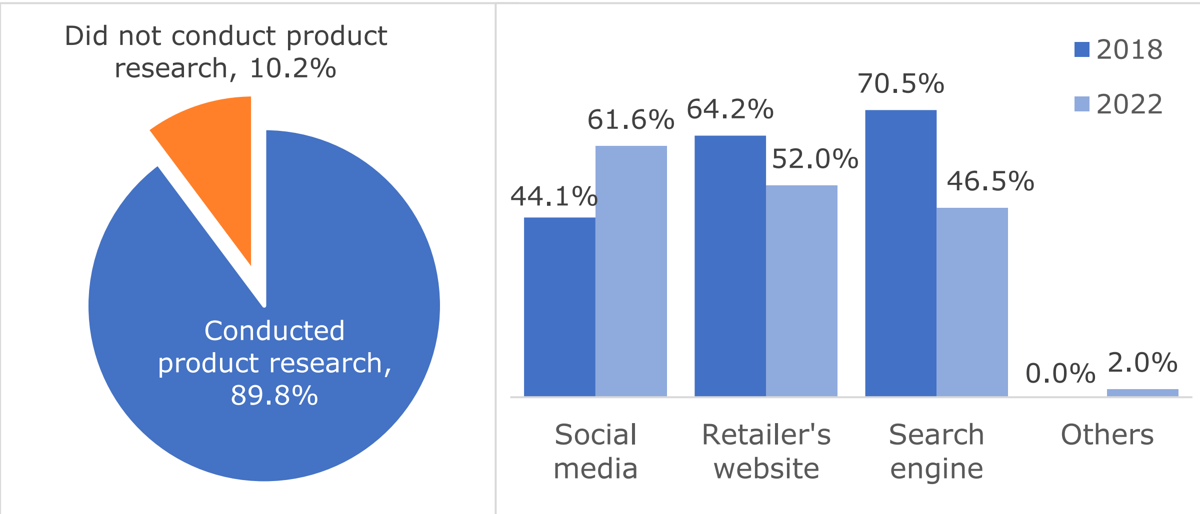


Figure 6: Percentage of e-Commerce consumers on product research and platform used

The trend in consumer behaviour has shifted notably from using search engines to utilising social media platforms for product research. In 2018, 70.5% of respondents used a search engine, while 44.1% utilised social media for product study. However, in 2022, social media has become the primary platform for product research, overtaking search engines. This growing trend underscores the increasing reliance of consumers on social media platforms for their product exploration.

This survey went on to ask what social media characteristics influence consumers when they shop online. The primary influence, according to 81.6% of consumers, was reviews, comments, and feedback. This was followed by exclusive offers (75.6%), advertising (52.0%), and current trends (38.5%).

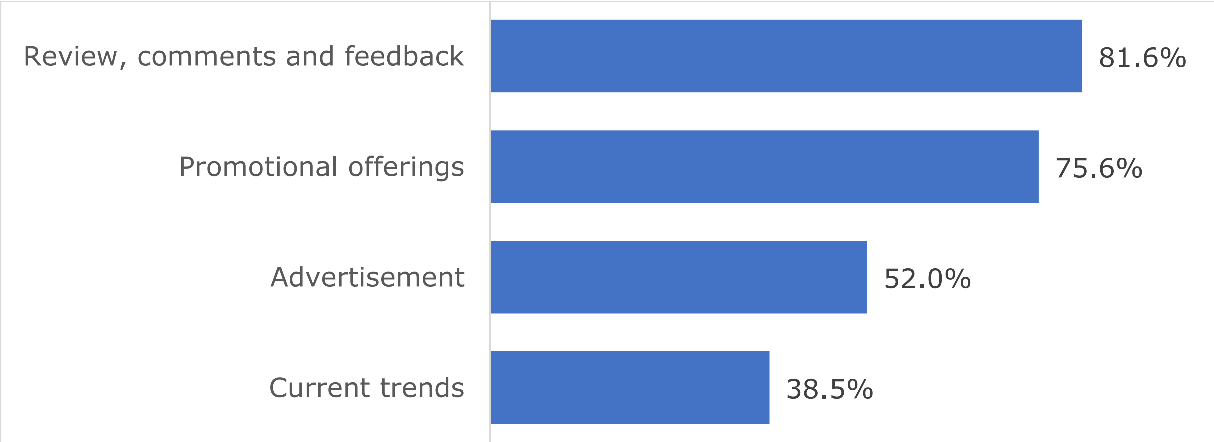


Figure 7: Social media aspects that influenced online shopping behaviour

Other reasons for shopping online include shipping options (54.3%), ease of payment (47.0%), the effects of MCO (46.0%), customer reviews (43.1%), and clear product return policy (22.8%).

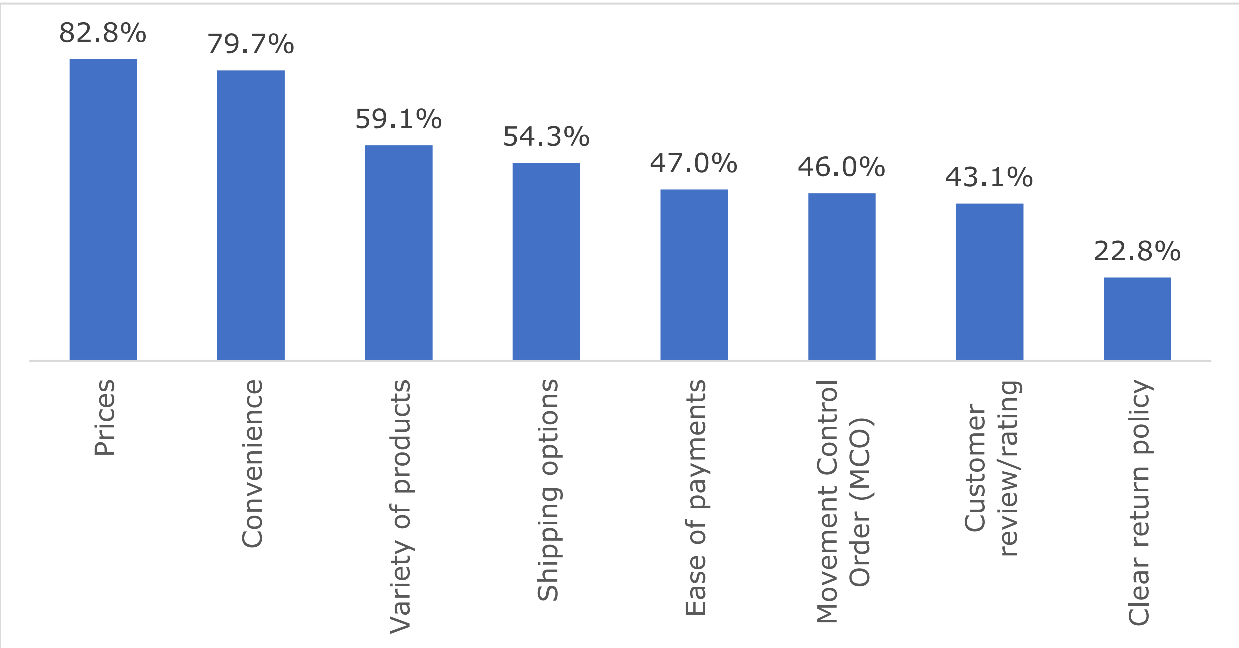


Figure 8: Motivation factors for online shopping

PREFERRED DEVICE FOR ONLINE SHOPPING

The survey results show that smartphone is still the most popular device used for online shopping. 93.9% of consumers stated that they used smartphone to shop online, a 15.6 pp increase from 2018 (78.3%). The preference towards smartphones is understandable due to its convenience and accessibility of use for online shopping. Consumers can access e-Commerce platforms, social media, and social messaging apps used for e-Commerce from any location with internet access.

93.9%	**19.1%**	**13.8%**	**4.9%**	**0.9%**
Smartphone	Laptop/ Notebook/ Netbook	PC / Desktop	Tablet	Smart TV

Figure 9: Devices used for online shopping

Nonetheless, almost half of the respondents (45.1%) encountered challenges when trying to enlarge an image on a smartphones screen. Nearly one-third of respondents (29.1%) expressed that product information is limited while browsing on a mobile device, and 14.7% indicated that they had to switch to the desktop version to access more detailed product information.

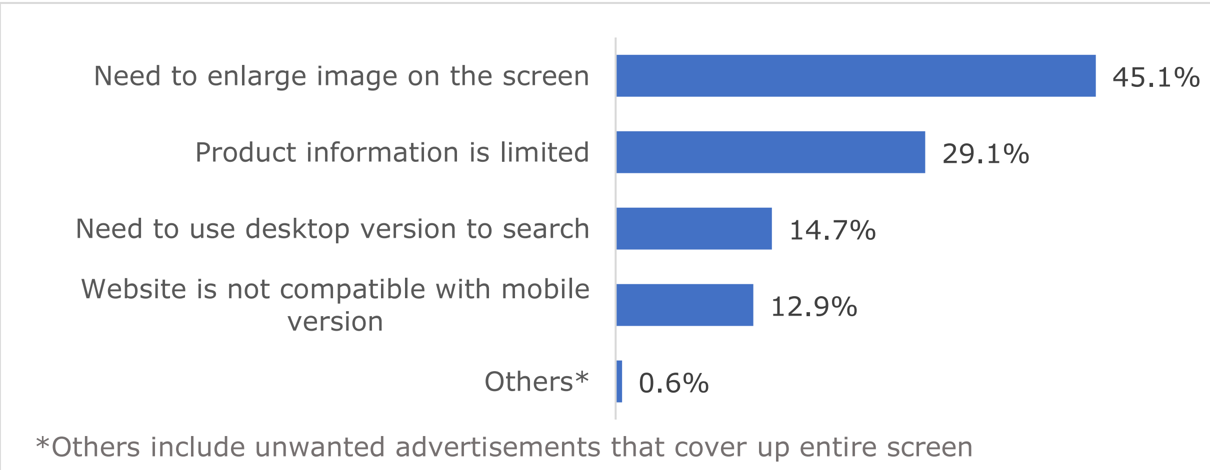


Figure 10: Challenges faced using smartphones for online shopping

The second most popular devices used by consumers for online shopping were laptops, notebooks or netbooks (19.1%). These devices were more preferred by consumers in their 30s (17.8%) compared to those aged 60 and above (4.4%).

The third most popular device used for online shopping was the desktop or PC (13.8%). This device was more favoured by consumers in their 30s (15.6%) and less preferred by those aged 60 and above (7.5%).

FREQUENCY AND TIME OF PURCHASE

Among different age groups, younger shoppers aged below 50 made more frequent online purchases than any other age group. The survey found that around 60.0% of these age groups shop online few times in a month.

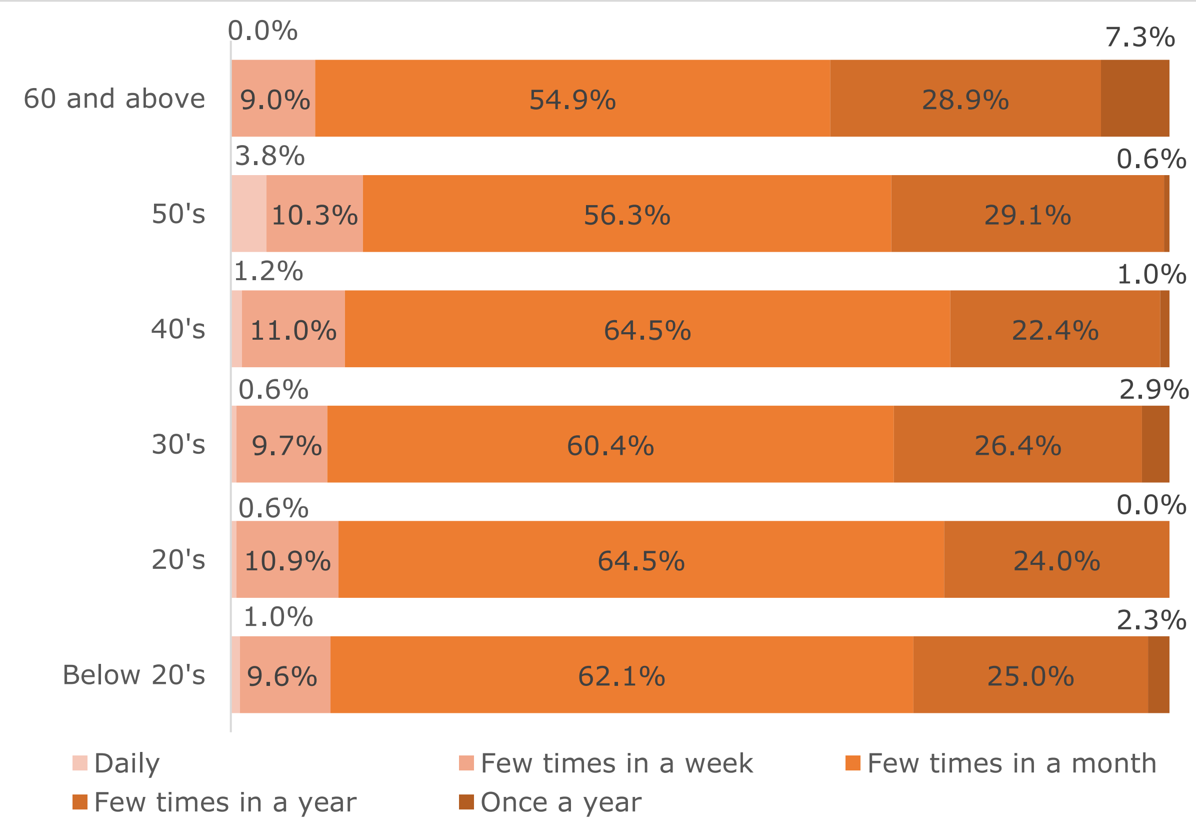


Figure 11: Frequency of online shopping by age group

Figure 12 shows the frequency of online shopping by average monthly income.

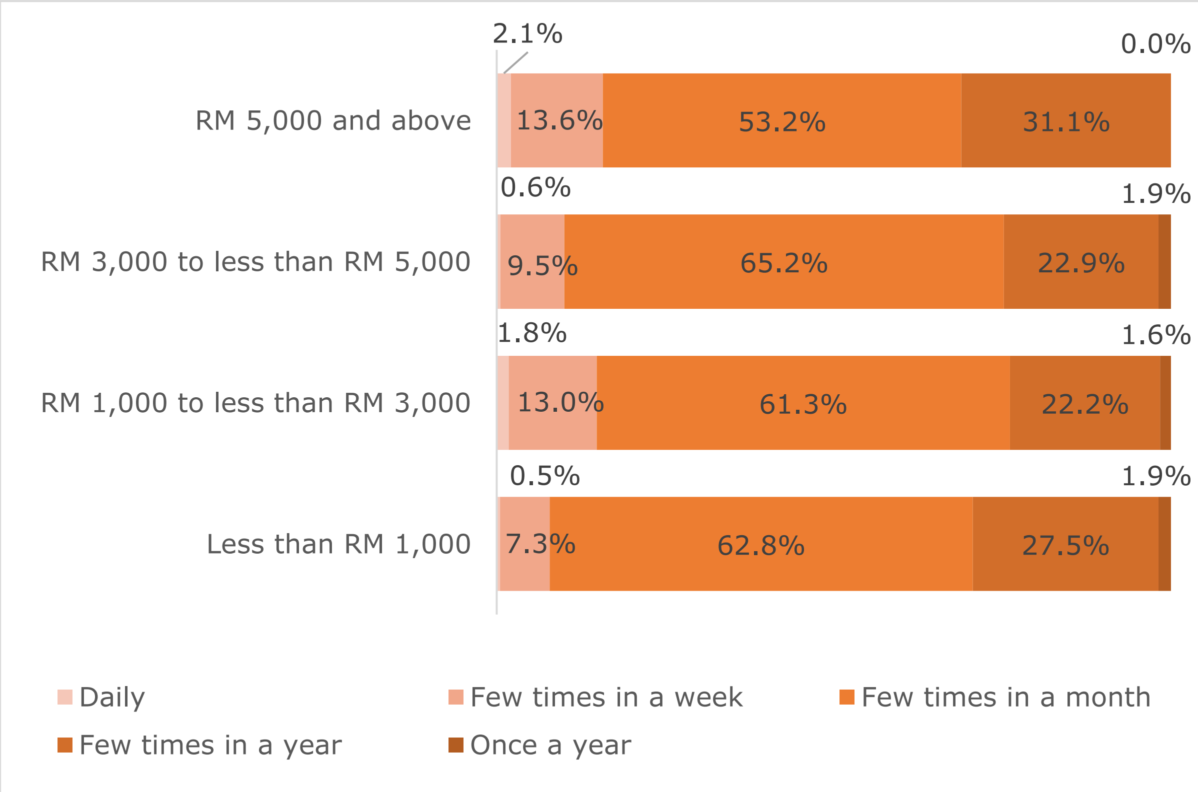


Figure 12: Frequency of online shopping by income group

When asked about their preferred time for shopping, seven out of ten online shoppers in Malaysia (71.4%) stated a preference for shopping on regular days, while 52.0% expressed a preference for shopping on their days off or during holidays.

When asked further, 53.9% of respondents mentioned conducting their online shopping at night, while 33.2% reported doing so during the day. Additionally, 8.9% of shoppers preferred to make online purchases in the morning, with the remaining 4.0% indicating a preference for shopping online around midnight or later.

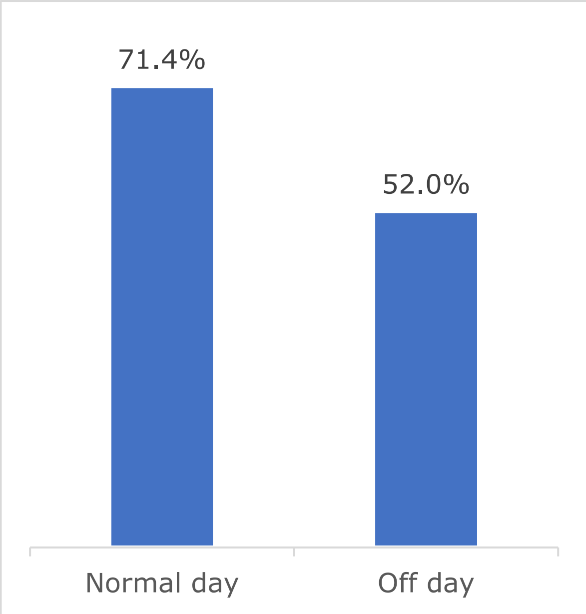


Figure 14: Usual day to shop online

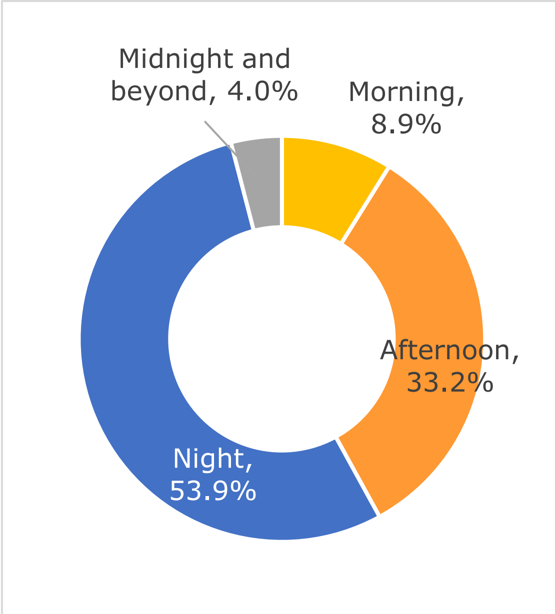


Figure 13: Usual time to shop online

ONLINE SELLER BY COUNTRY

According to the survey, about half of Malaysian online shoppers (56.2%) purchased products and services only from local sellers, one-third (33.4%) purchased from both local and foreign merchants, and 5.3% purchased online just from foreign suppliers.

Upon delving deeper into cross-border e-Commerce market, 97.0% of respondents confirmed purchasing goods from China, reflecting a 12.2% increase since 2018. This rise aligns with China's status as the largest global e-Commerce market in 2020[6]. Furthermore, 13.3% of shoppers reported buying from Indonesia, while other popular foreign sellers included those from South Korea (8.3%), Hong Kong (4.7%) and Taiwan (4.1%).

[6] Source: Statista, "eCommerce Report 2021", June 2021

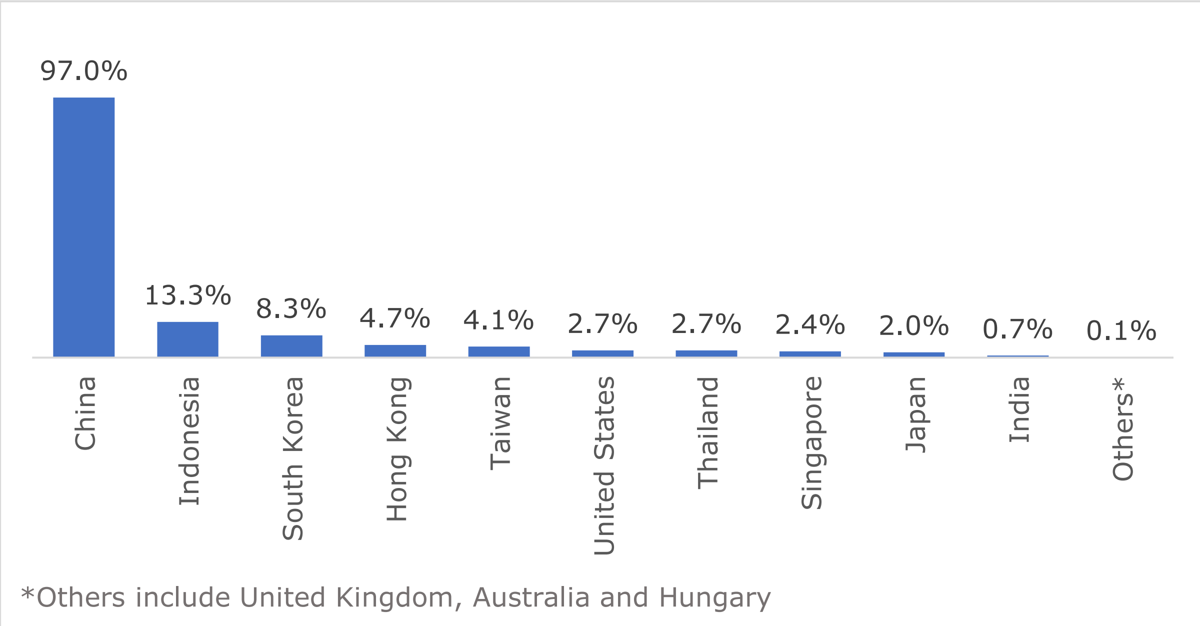


Figure 15: Cross border e-Commerce market

GOODS AND SERVICES PURCHASED

Further, the survey also explored into types of products and services purchased online and the expenditure made in the last six months. According to Figure 16, the results indicate that clothing and accessories remained the most popular products, purchased by 78.7% of shoppers.

Since the COVID-19 epidemic, food and essential products became prevalent items purchased by e-Commerce consumers, accounting for 67.4%, marking a 24.3 pp increase from 2018. Additionally, prepaid phone and Internet top-ups surged by 30.9 pp during the pandemic, attributed to increased reliance on connectivity due to mobility constraints and the implementation of work-from-home policies.

Conversely, in response to global border closures, the purchases of travel-related products declined from 37.9% in 2018 to 23.5% in 2022.

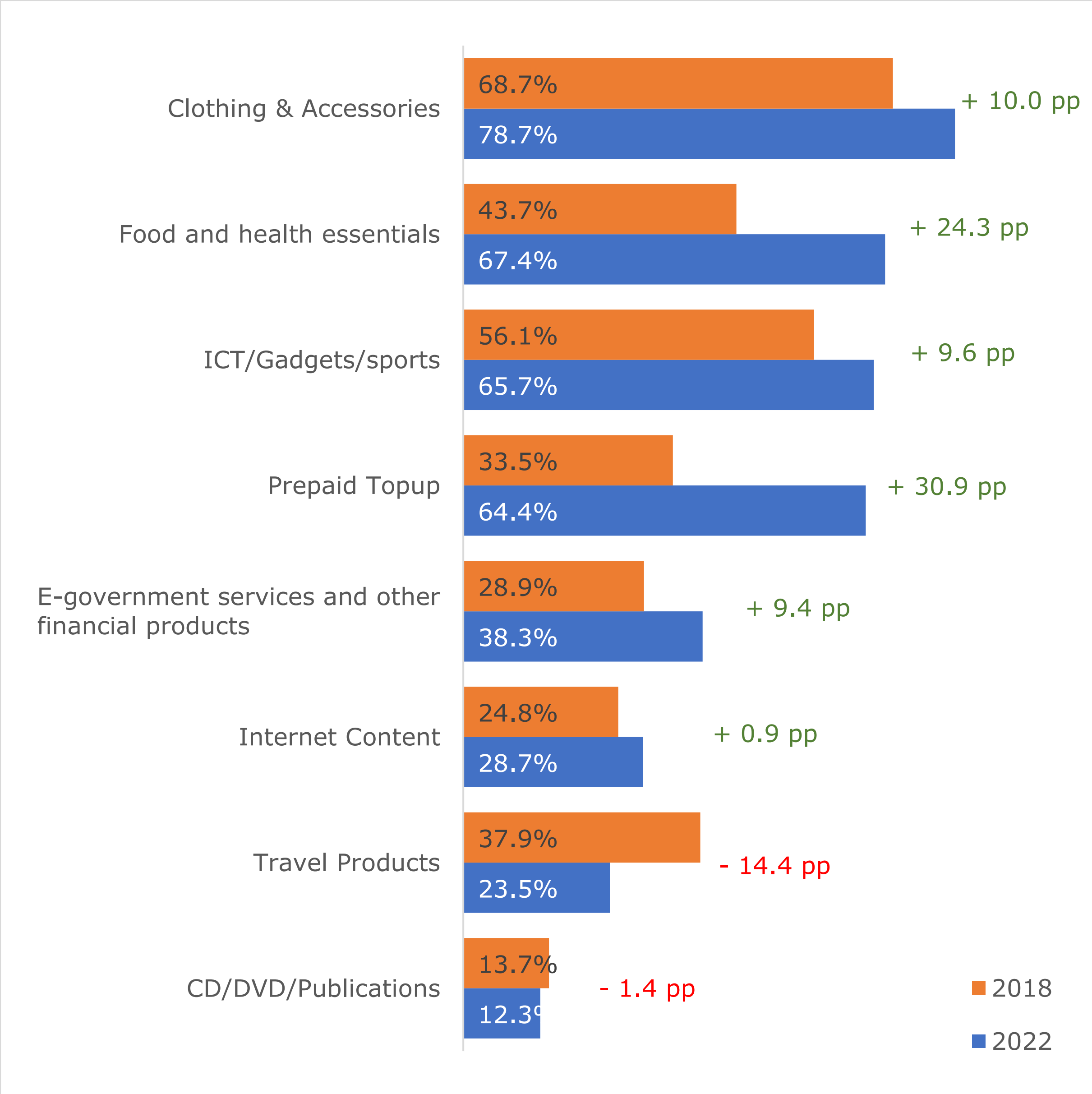


Figure 16: Product categories purchased by online shoppers in Malaysia

The survey also found that men prefer to buy automotive and motor parts (85.8%), computer software (77.0%), sports-related goods (71.8%), and paid online games (70.8%). Women, on the other hand, prefer to buy cosmetics (71.4%), publications (64.6%), and children's product (57.9%). This is illustrated in Figure 17 below.

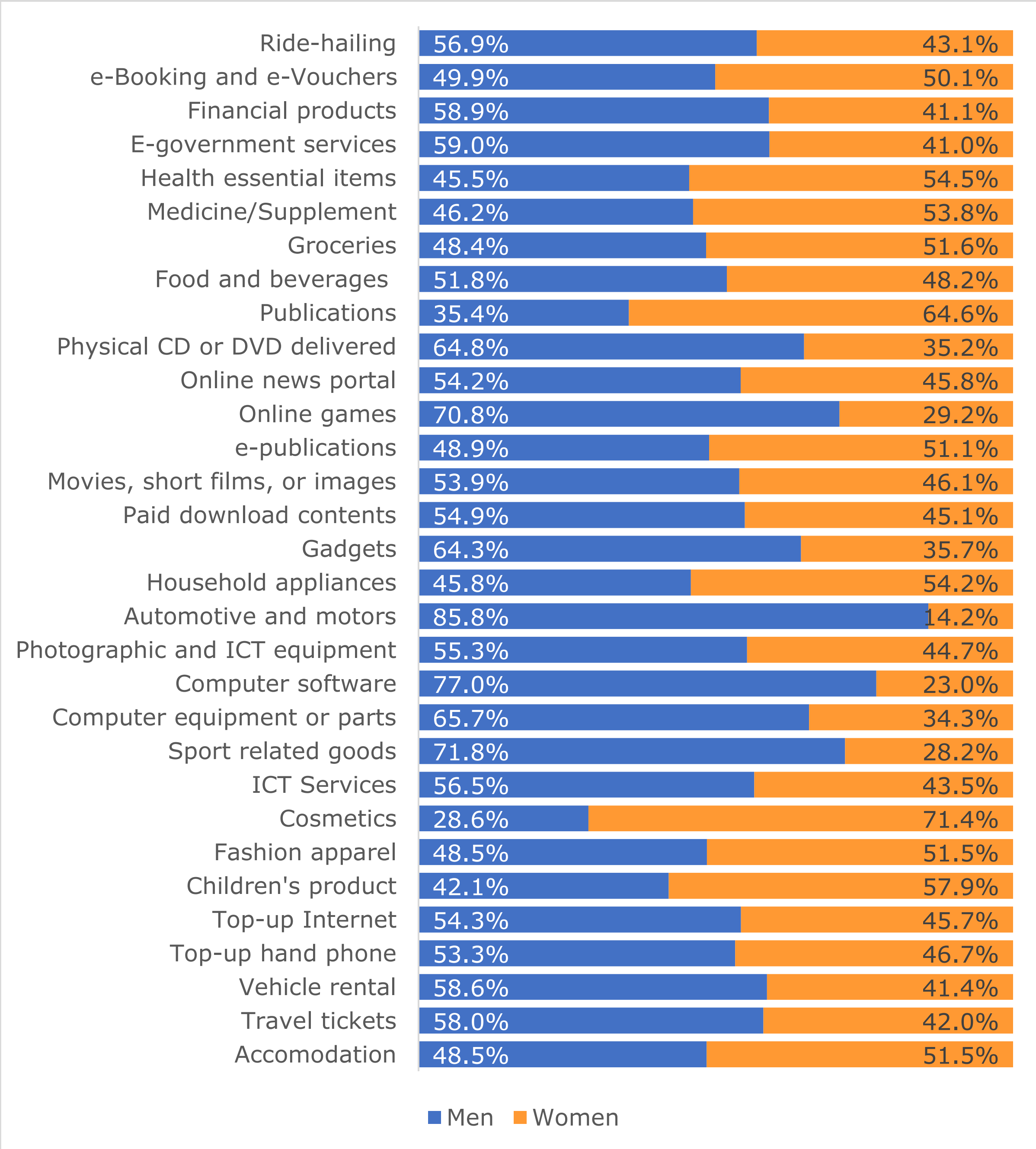


Figure 17: Types of goods and services purchased by gender

An observation of the top three goods and services purchased online indicates that consumers of all ages tend to buy fashion apparel, phone top-ups, and food and beverages. Interestingly, individuals in their 50s shows a greater inclination towards purchasing household appliances (46.7%).

Below 20's	
68.9%	Fashion apparel
47.9%	Top-up hand phone
45.3%	Food and beverages

20's	
73.2%	Fashion apparel
56.4%	Food and beverages
53.7%	Top-up hand phone

30's	
64.0%	Fashion apparel
49.8%	Food and beverages
49.6%	Top-up hand phone

40's	
61.1%	Fashion apparel
48.0%	Top-up hand phone
32.3%	Food and beverages

50's	
63.6%	Fashion apparel
49.6%	Top-up hand phone
46.7%	Household appliances

60's and above	
51.3%	Top-up hand phone
40.5%	Food and beverage
39.7%	Fashion apparel

Figure 18: Top three types of goods and services purchased by age group

AMOUNT SPENT

In general, the majority of online consumers spent less than RM100 on prepaid top-ups, CD/DVDs/Publications, Internet content, food and essential items, and travel products (Figure 20). Approximately half of consumers spent less than RM100 on e-government services and other financial goods.

On the other hand, consumers tended to spend more than RM100 on clothing and accessories, as well as on ICT, gadgets, and sports related goods.

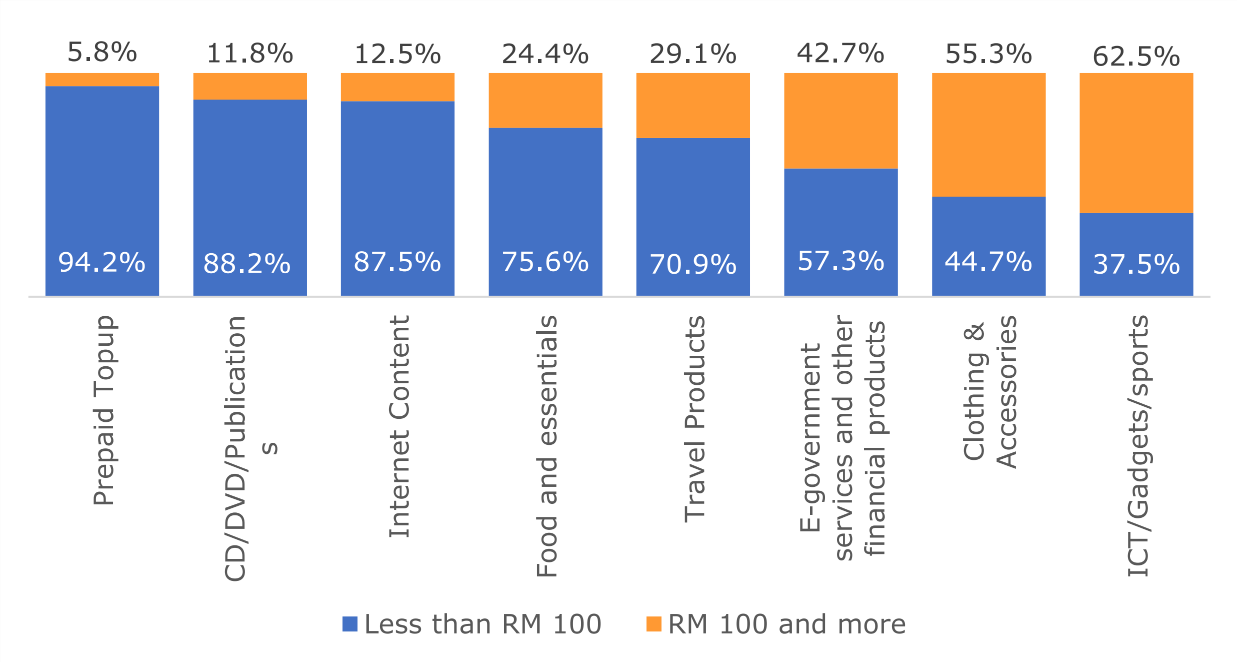


Figure 19: Amount spent on types of goods and services

PREFERRED PAYMENT OPTIONS

Online banking is the most preferred payment method (68.3%), followed by cash on delivery (23.9%) and debit card (19.8%).

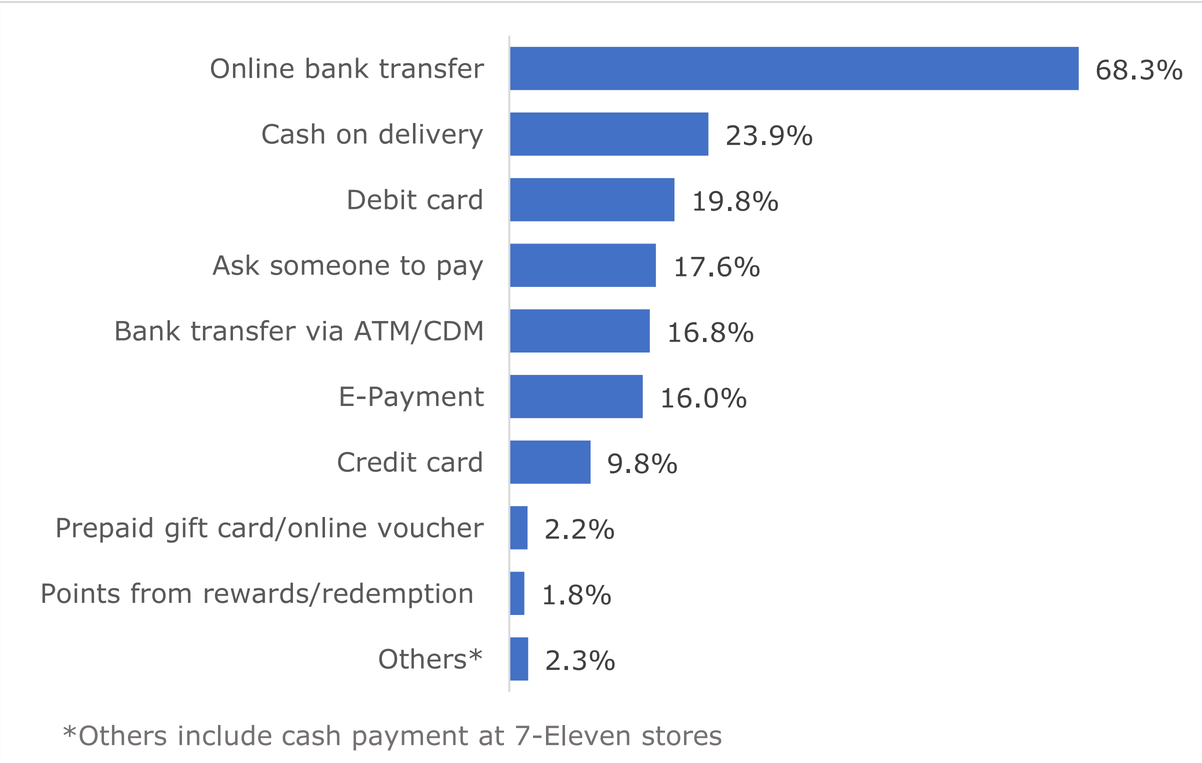
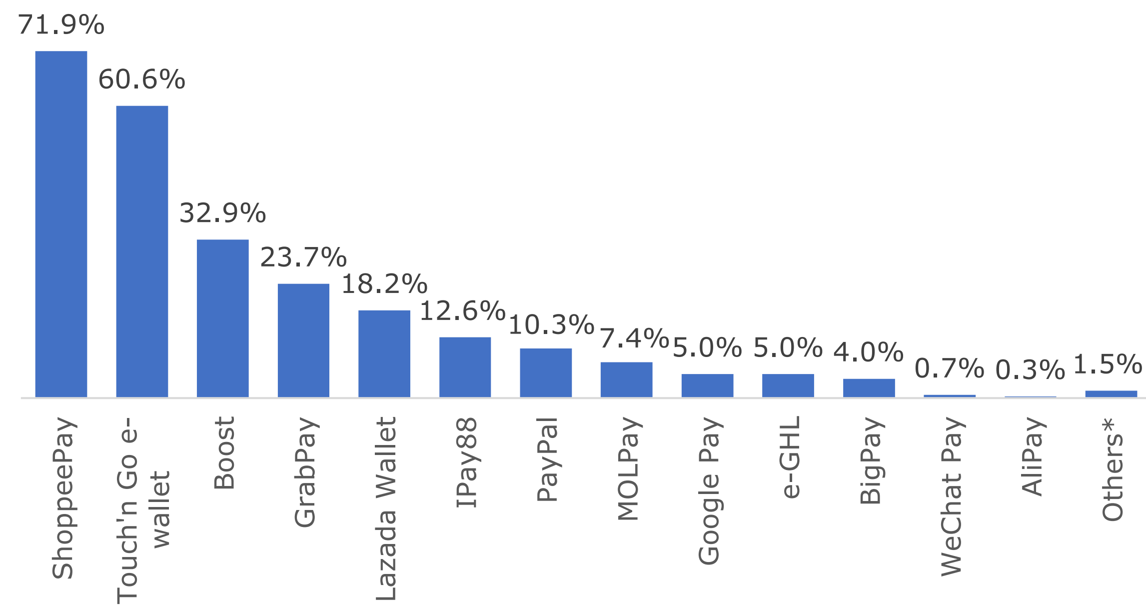


Figure 20: Payment methods used

Interestingly, despite the proliferation of various e-payment platforms established in recent years, only 16.0% of respondents preferred making payment using e-payment. The majority of respondents opted for ShopeePay and Touch’n Go e-wallet at 71.9% and 60.6% respectively.



*Others include S Pay Global (formerly known as SarawakPay)

Figure 21: Types of e-payment used

DELIVERY

PREFERRED DELIVERY LOCATION

About seven out of ten customers (76.2%) indicated a preference for having their packages delivered to their homes, while the remaining proportion (23.8%) chose other options. These alternatives encompassed locations closer to the office or along the way home (16.4%), the convenience of collecting the parcel at their own convenient time (42.5%), and absence of individuals at home (49.3%) as the reasons provided. Furthermore, 18.4% of respondents cited inaccessible addresses, difficulty in tracing home location, and concerns regarding safety and privacy as additional reasons for not having packages delivered to their residence.

Furthermore, 16.0% prefer workplace delivery while 4.9% prefer post/courier office delivery. The remaining respondents (2.9%) prefer to receive their parcel at the parcel locker, pick up at retail outlet, someone else's house, and others such as PEDi and place of study.

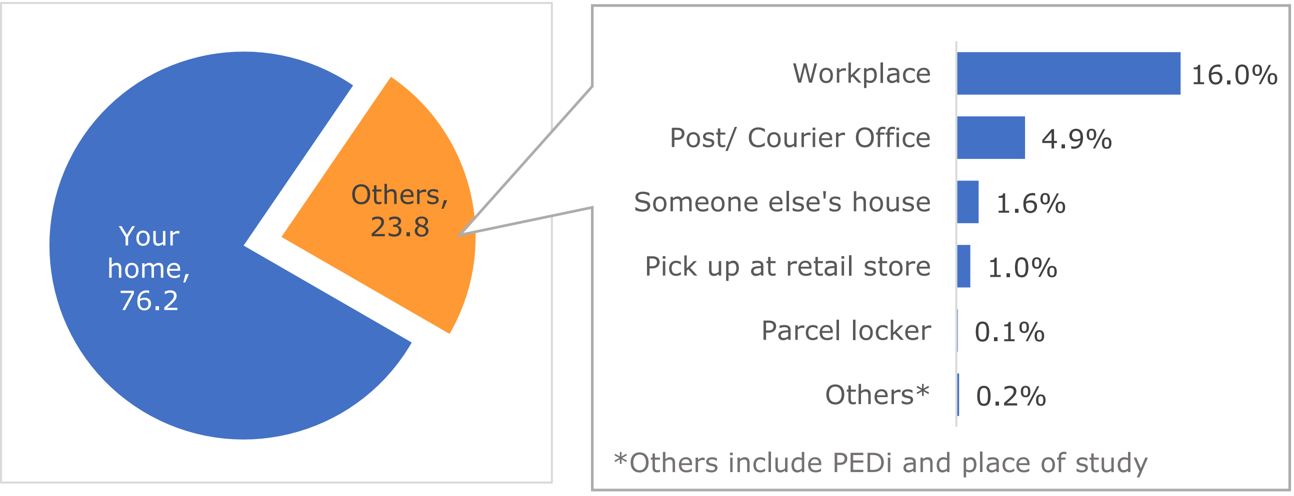


Figure 22: Preferred delivery location

INFLUENCE OF DELIVERY OPTION

This survey also covered the importance of delivery aspects for consumers as well as the factors that influenced their shopping behaviour.

The result shows that the top two most important delivery elements cited by consumers were fast delivery (80.7%) and free delivery (66.8%). This was followed by the ability to track delivery (55.4%) and having the option to choose preferred courier providers (46.1%).

26.4% of consumers responded that weekend/public holiday delivery is among the most important delivery aspects they seek, while 17.8% stated that efficient courier customer service is important to them.

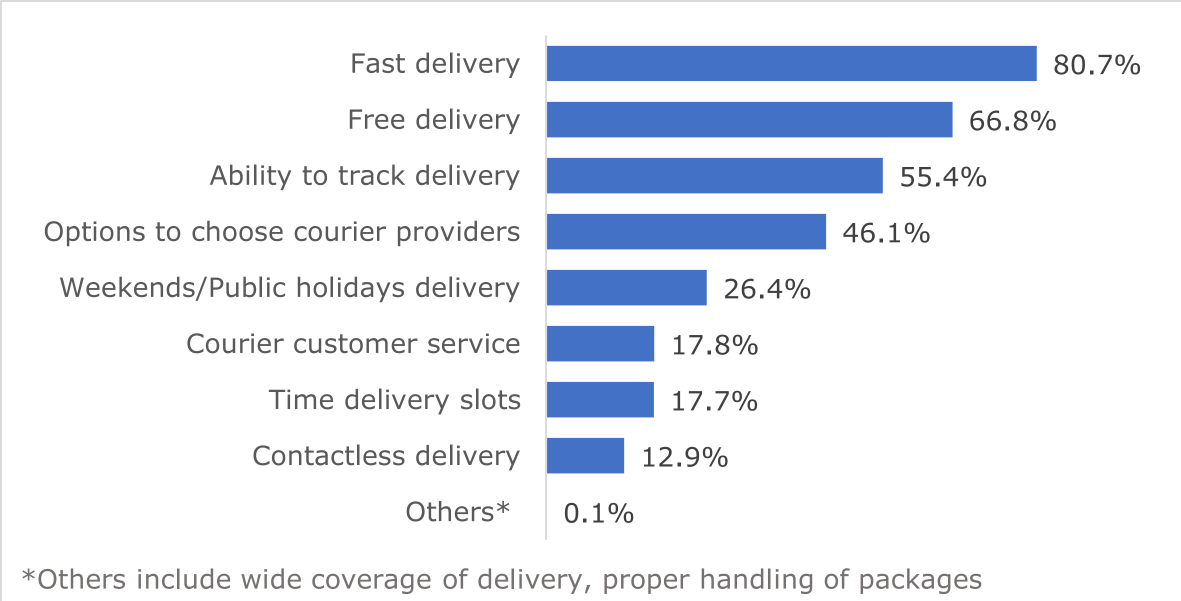


Figure 23: Important delivery aspects

Furthermore, time delivery slots (17.7%) and contactless delivery (12.9%) were two of the most essential delivery factors that consumers consider while shopping online.

It has been noted that the cost of shipping outweighs the desire for fast delivery. Among the 80.7% of respondents who stated that fast delivery is the most important feature, 60.5% opted for free or low-cost delivery within a 3-5 day window, while only 15.2% chose premium delivery with a 24-hour window. Similarly, among the 66.8% of respondents, who stated that free delivery is the most important delivery feature, 66.5% chose low-cost delivery within 3-5 days, while just 16.1% want premium delivery within 24 hours.

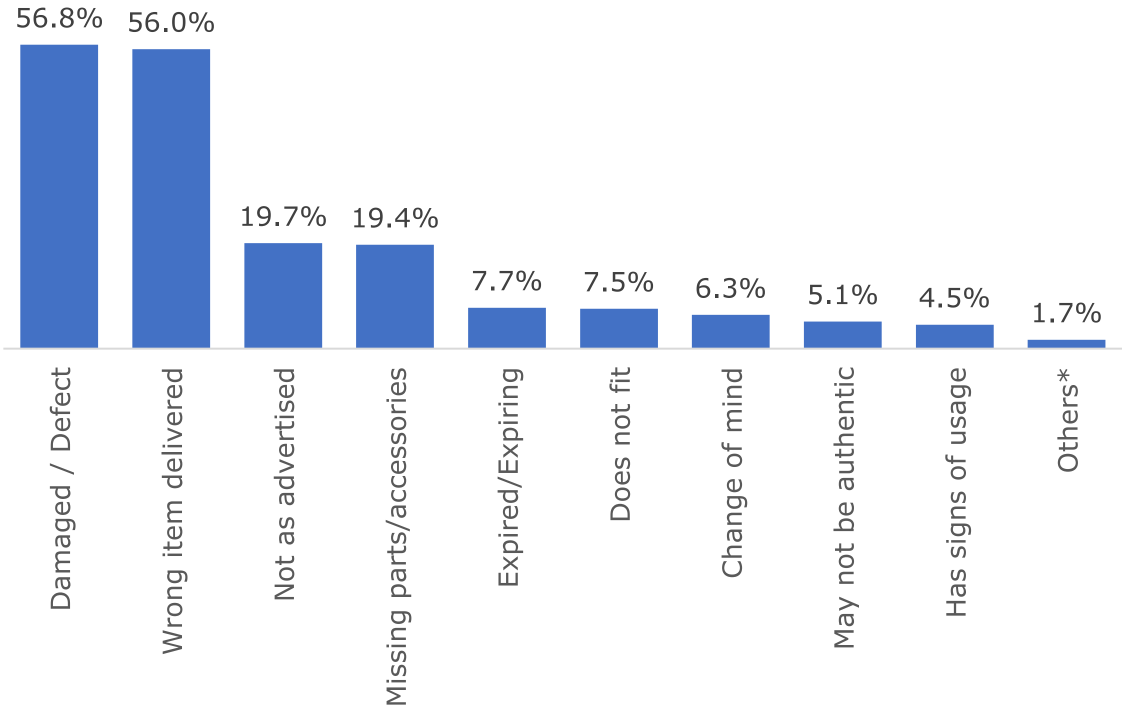
This implies that, despite prioritizing fast delivery, consumers were willing to wait 3 or more days to secure a cheaper cost of delivery.

PRODUCT RETURN

Post-sale customer support is another crucial aspect of e-Commerce. It is essential if a customer is dissatisfied with any received goods, they should have the option to return them.

Merely 25.1% of the respondents experienced situations involving returning a purchased item. Of which, 5.5% requested a rebate upon returning an item, 59.6% obtained a complete refund, and 57.5% received either new products or a replacement.

According to the survey, 56.8% of returns were due to the product being defective or damaged, while 56.0% were initiated because the wrong item was delivered.



*Others include did not receive product entirely and product had run out of stock

Figure 24: Reasons for product return

LEVEL OF ONLINE SHOPPING SATISFACTION & CHALLENGES FACED

This survey further explored on the overall shopping satisfaction in terms of purchasing and product delivery. The survey reveals that shoppers generally satisfied with their purchasing and product delivery experiences.

In terms of purchase experiences, a vast majority (92.2%) of online shoppers pleased with their online shopping experience. Approximately half (46.6%) of the respondents expressed satisfaction, 28.1% were slightly satisfied, and 17.5% were completely satisfied. Conversely, only 2.7% expressed dissatisfaction with their online purchase experience.

The most common reasons for dissatisfaction included misleading product prices and information (62.4%), encounters with unfriendly online sellers (31.4%), and challenges with website usability or users-friendliness (27.9%).

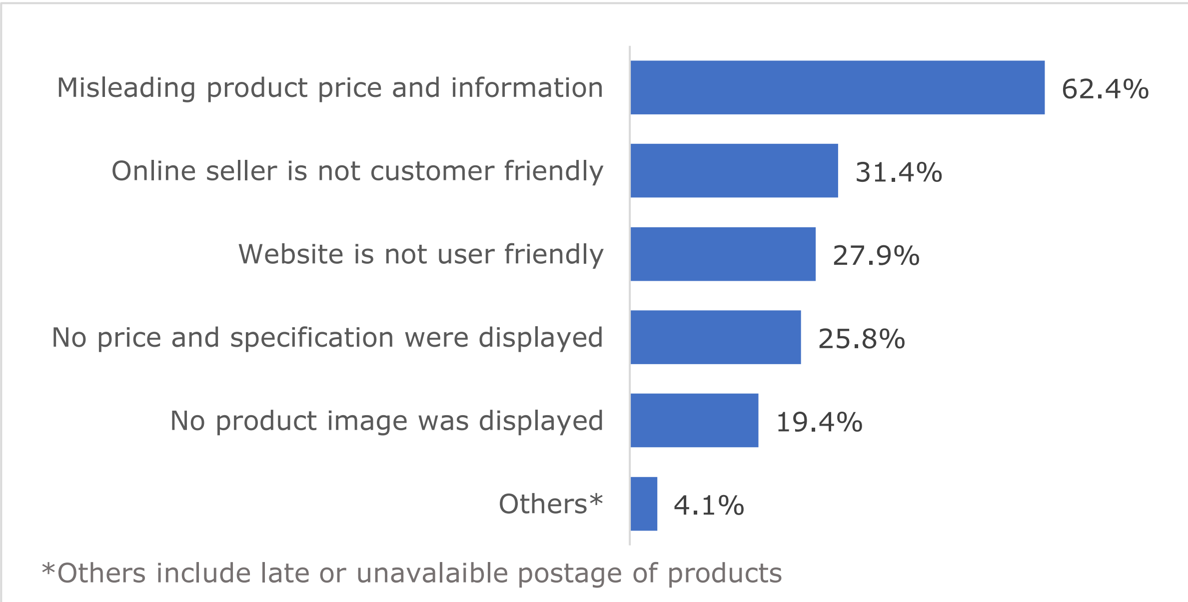


Figure 25: Reasons for dissatisfaction in purchasing experience

In terms of product delivery, 91.1% of online shoppers expressed satisfaction with the service. About half of the respondents (51.1%) were satisfied with their experience, while 27.0% were slightly satisfied and

13.0% were completely satisfied. In contrast, only 4.3% of online shoppers expressed dissatisfaction with their delivery experience.

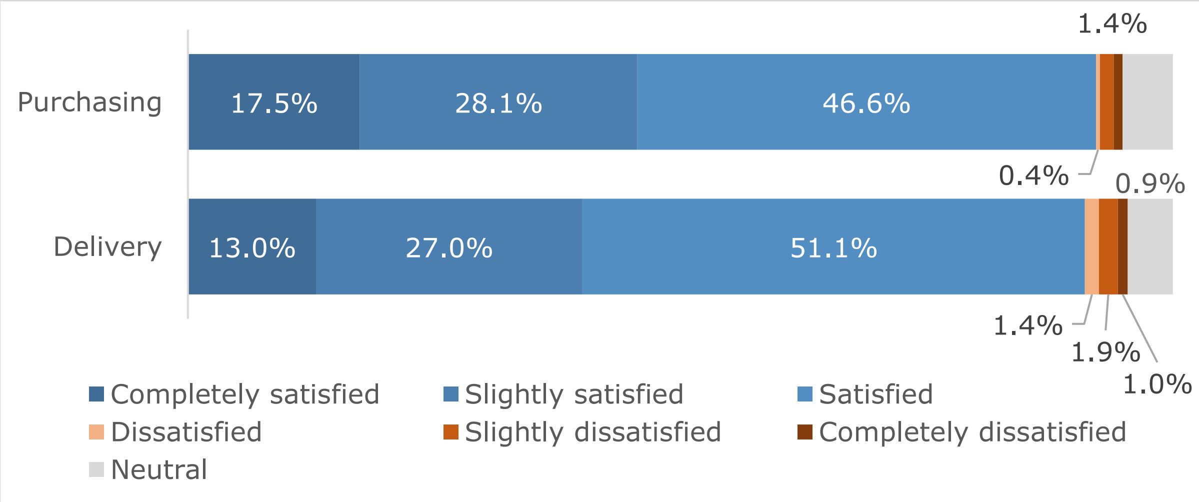


Figure 26: Level of satisfaction for purchasing and delivery

PRIVACY AND SECURITY

SECURITY AND PRIVACY CONCERNS REGARDING E-COMMERCE

This section of the survey looks at consumer concerns about privacy and security.

In this survey, 64.7% of shoppers expressed concerns about security, while 69.1% indicated concerns about privacy when shopping online. Comparing the data from 2018 to 2022, security issues surged by 11.2 pp (from 53.5% to 64.7%), while privacy concerns saw a marginal increased by 0.1 pp (from 69.0% versus 69.1%). According to Malaysian Computer Emergency Response Team, there were 10,016[7] reported cybersecurity incidents in 2021, with fraud accounting for 75.8% of the incidents.

[7] Source: Malaysia Computer Emergency Response Team, "Reported Incidents based on General Incident Classification Statistics", 2021, https://www.mycert.org.my/portal/statistics-content?menu=b75e037d-6ee3-4d11-8169-66677d694932&id=2650ed29-88be-4cec-86cc-13f8e07ae228

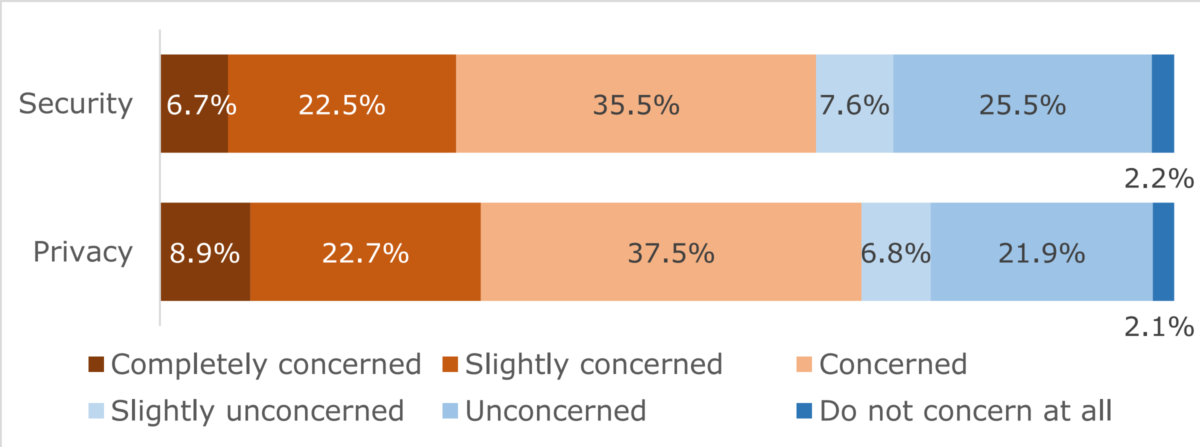


Figure 27: Level of concern for security and privacy

The survey results show that the most common security concern among respondents was encountering fake online shops (69.2%), followed by trust concerns (53.8%) and bank details theft (51.1%).

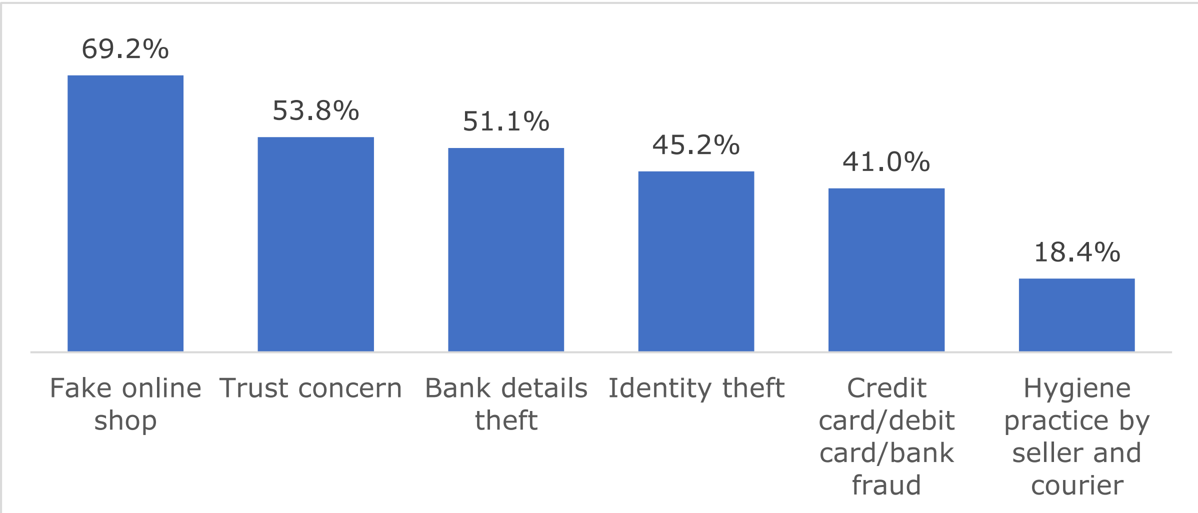


Figure 28: Most common security concern

Majority of online shoppers are likewise concerned about their privacy. The exposure of personal information was cited as the most serious privacy concern by 83.6% of online shoppers. Furthermore, 70.6% were extremely concerned about inappropriate data sharing for marketing purposes. Another area of concern for online consumers was browser monitoring or online activity tracking, which was cited by 43.2% of respondents.

EXPERIENCE ON FRAUDULENT ACTIVITIES

The survey shows that 16.1% of respondents have experienced fraudulent activity. Among these instances, 68.5% of respondents reported not receiving goods they purchased, marking the most prevalent form of fraud. Financial fraud accounted for 35.8% of reported incidents, followed by 8.1% for identity theft and 7.0% reporting different types of fraud, such as receiving misrepresented or counterfeit products.

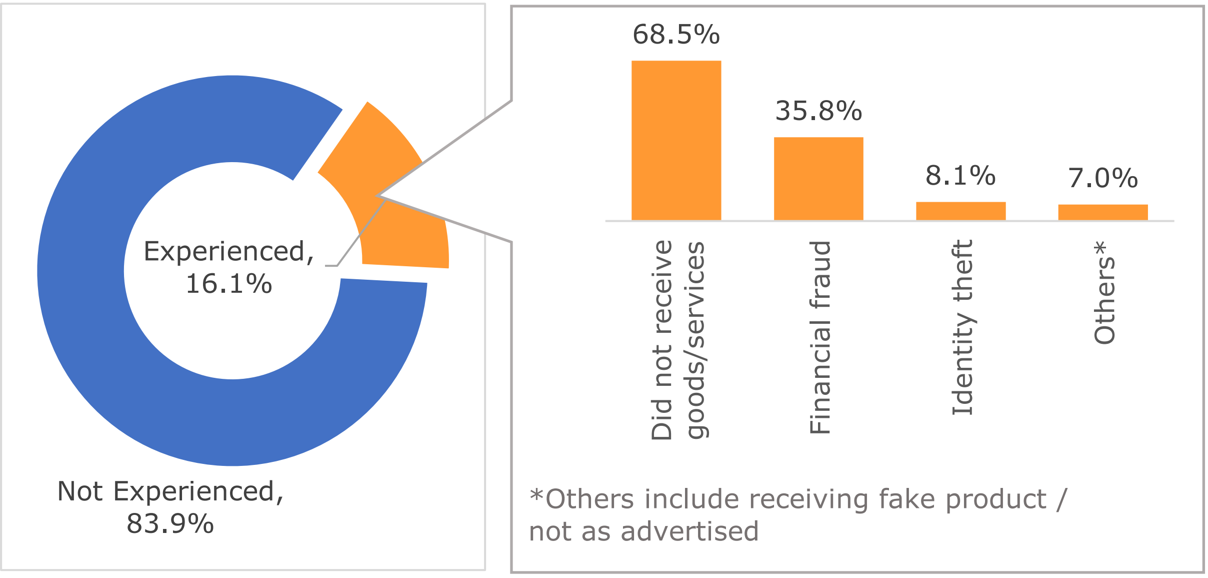


Figure 30: Experience in fraudulent activities

EFFECTS OF MOVEMENT CONTROL ORDER (MCO)

The survey was carried out during the COVID-19 pandemic. Therefore, the survey covers the impact of Movement Control Orders (MCO) on online spending, the kind of goods and services purchased, and delivery.

E-COMMERCE ACTIVITIES

Based on Figure 31, the survey indicates a surge in e-Commerce activities due to the impact of MCO. The percentage of consumers not engaging in any online commerce decreased by 14.6 pp, while the percentage of users making purchases and sales increased by 12.8 and 6.3 pp, respectively. The increased might be attributed to the limitation of physical movement imposed by the MCO. As individuals were unable to make purchases through traditional means, such as visiting physical stores, they likely turned to online platforms to fulfil their shopping needs. This shift in consumer behaviour has likely accelerated the growth of e-Commerce during the MCO period.

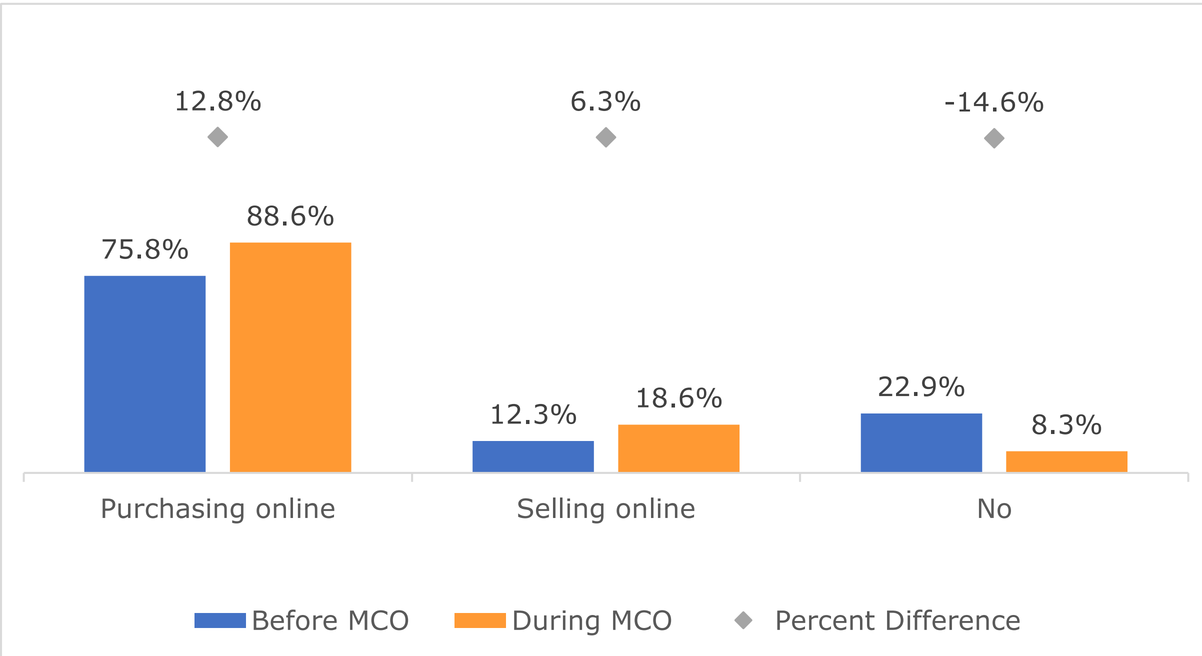


Figure 31: E-Commerce activities before and during MCO

AMOUNT SPENT ONLINE

The survey findings indicate that the average spending online during the MCO was slightly increased compared to before the MCO. Before the MCO, 55.8% of consumers spent less than RM100. However, during the MCO, 59.4% of consumers reported an increase in their expenditure, with the majority of consumers spending more than RM100. The increase is consistent with the surge in online sales observed during the MCO period.

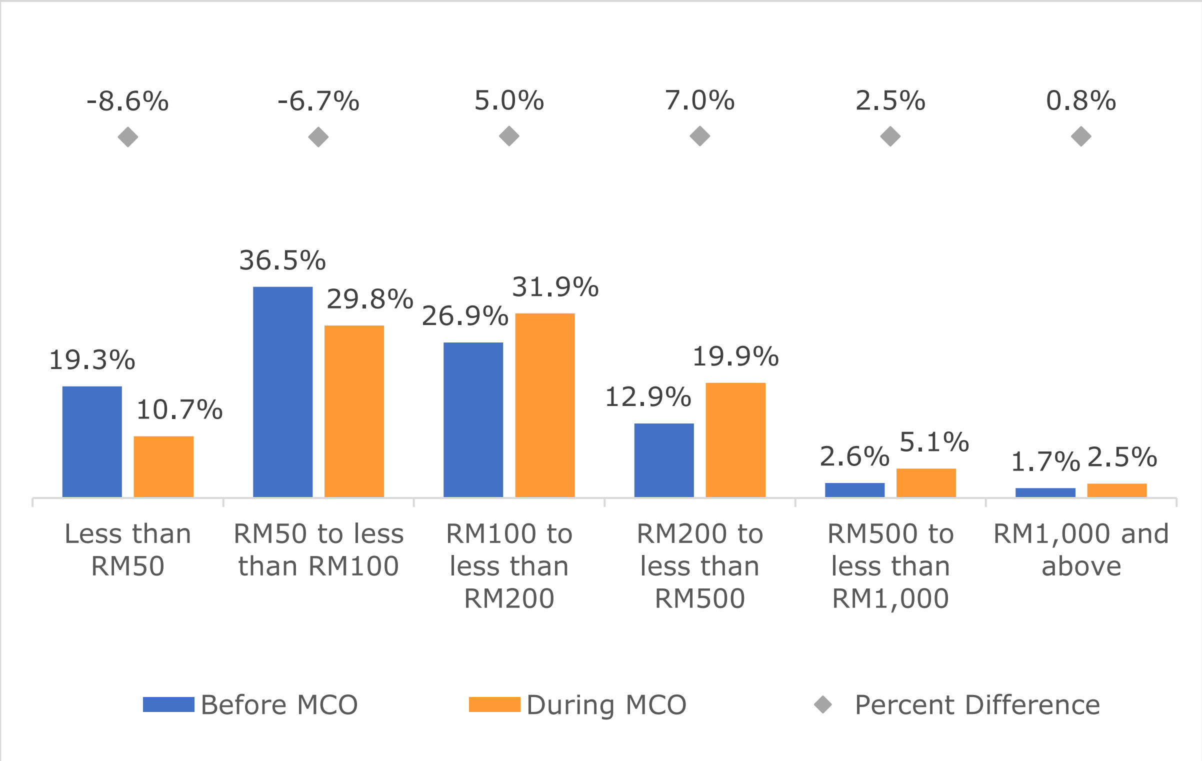


Figure 32: Amount spent online before and during MCO

TYPE OF GOODS AND SERVICES BOUGHT ONLINE

When MCO was introduced, the usual purchases made at grocery stores or when dining out shifted to online purchases due to movement restrictions. Consequently, there was a surge in purchases related to groceries, health and essential items (increase 12.1 pp) and online food ordering (increase 14.8 pp).

It is also notable that due to mobility constraints, e-bookings for activities such as fun runs and movies, as well as the purchase of travel-related items, have decreased 1.2 pp and 0.8 pp, respectively.

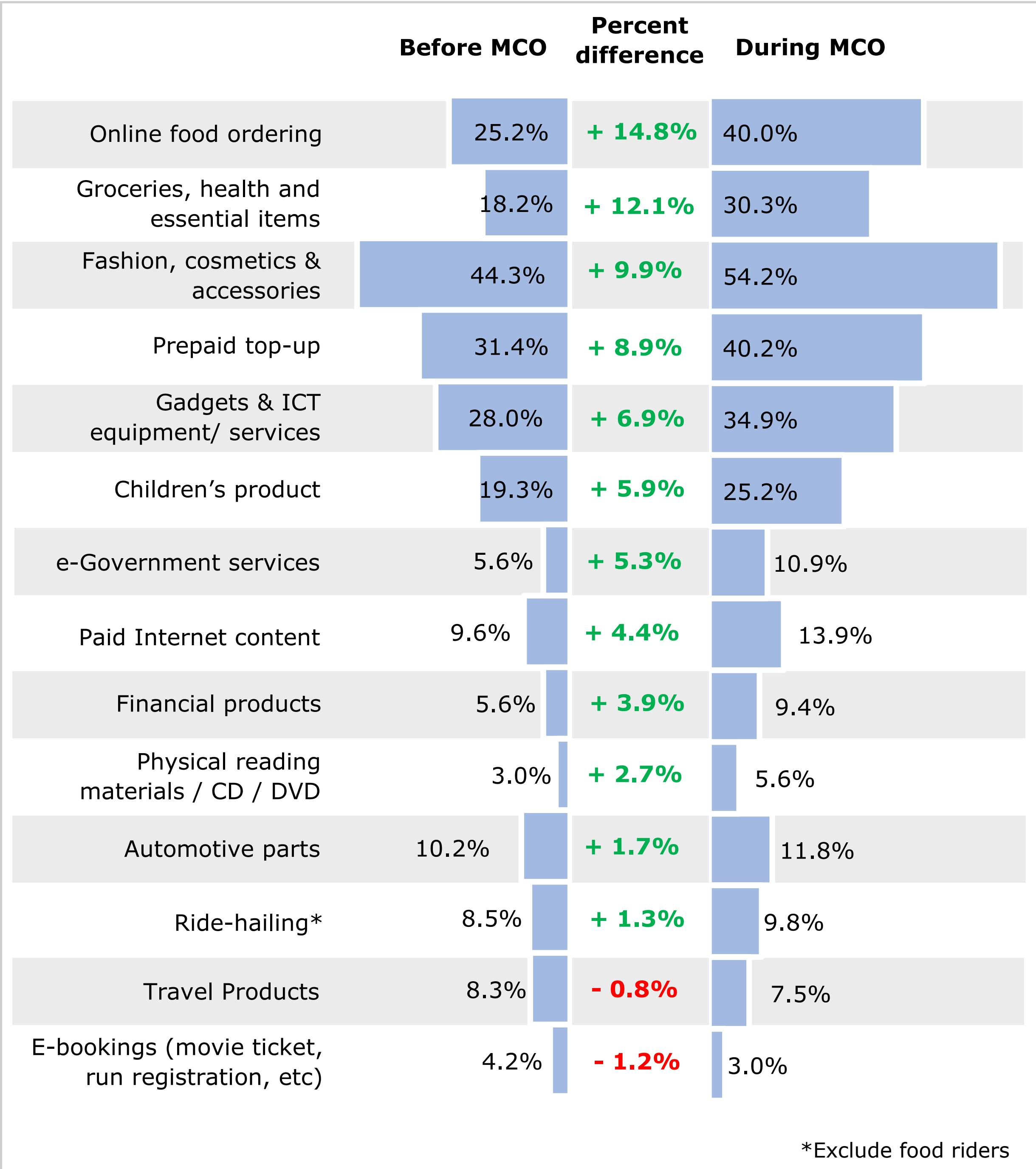


Figure 33: Types of goods and service bought before and during MCO

DELIVERY

Average days of delivery saw an increase in number of days due to surges of parcel traffic as well as mobility restrictions during the MCO implementation.

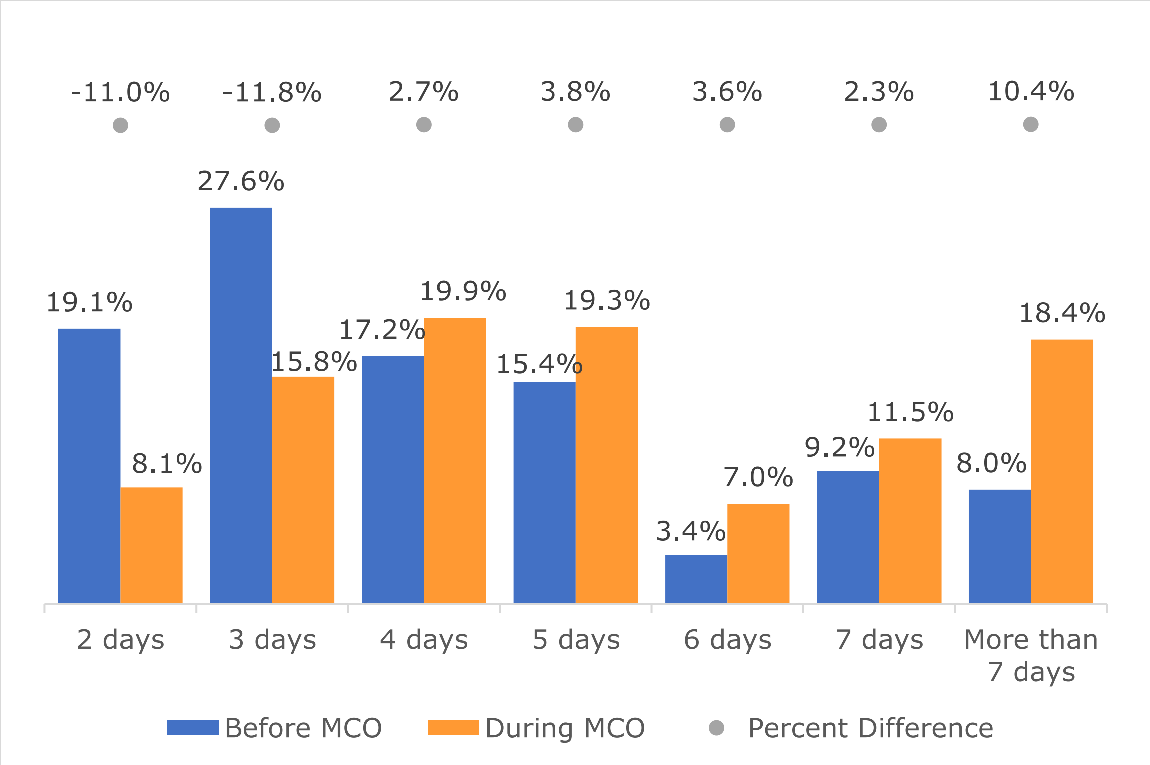


Figure 34: Average days of delivery before and during the MCO

Parcels per capita experienced a slight increase from 2018 to 2019, reaching 6.7 and 7.6 respectively. However, due travel restriction imposed during the pandemic, the parcel per capita spiked to 23.5 in 2021. This abrupt increase during unexpected events might have led to minor delays in regular delivery schedules.

The findings reveal a reduction in the average delivery days following the MCO. The percentage of 2-day deliveries decreased by 11 pp, while the percentage of 3-day deliveries dropped by 11.8 pp. The larger percentage difference between before and during the MCO is observed as the average delivery duration increases.

SECTION 5: RESPONDENT'S DEMOGRAPHIC

This section provides an overview of the five (5) demographic and socio-economic profile of e-Commerce consumers, namely: gender, age at the, urban-rural distribution, employment and educational attainment.

GENDER

The distribution of e-Commerce consumers showed a slightly leaning towards male respondents, accounting for 53.9% of the total respondents, while women respondents accounted for 46.1%. However, when looking at adoption rates, women were more inclined to engage in e-Commerce activities compared to men (81.8% versus 75.4%). According to DOSM, the sex ratio of Malaysian population stood at 1.1:1[8] whereas the survey revealed that that sex ratio of e-Commerce consumers was 0.9:1.

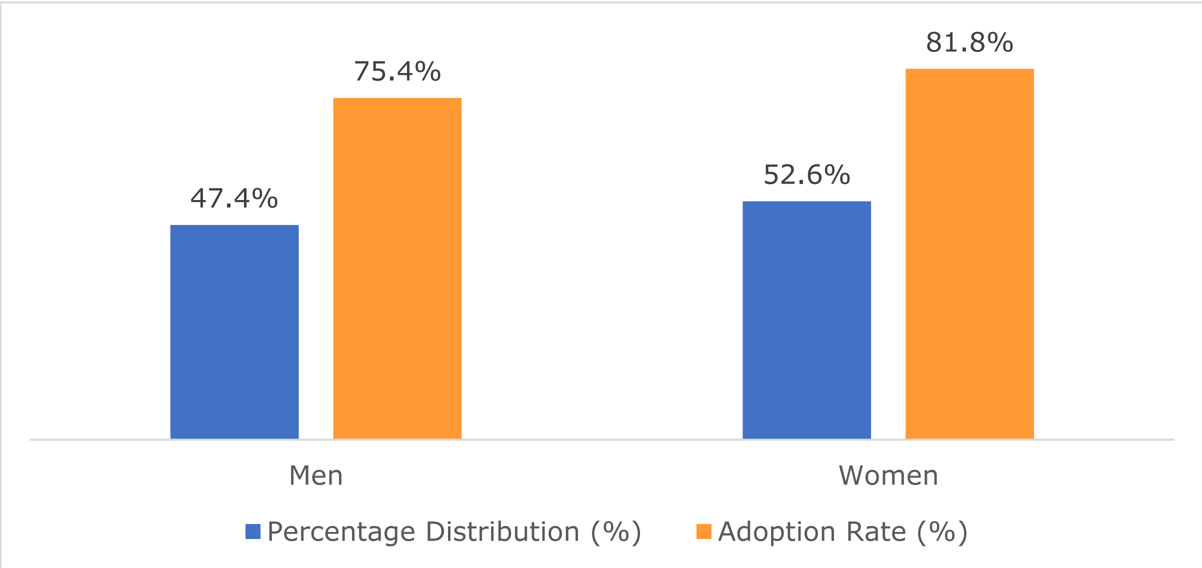


Figure 35: Percentage distribution of e-Commerce consumers and adoption rate by gender

[8] Source: DOSM, "Key Findings Population and Housing Census of Malaysia 2020: Administrative District", May 2022

AGE

The mean age of e-Commerce consumers in Malaysia stood at 31.8 years old, slightly lower than 2018 (33.7 years old). This suggests a trend towards a slightly younger demographic profile of e-Commerce consumers. Individuals in their 30's and below accounted for the largest proportion of respondents, comprising 69.2% of the total respondents. This is followed by adults in their 40's, comprising 18.6% of the total.

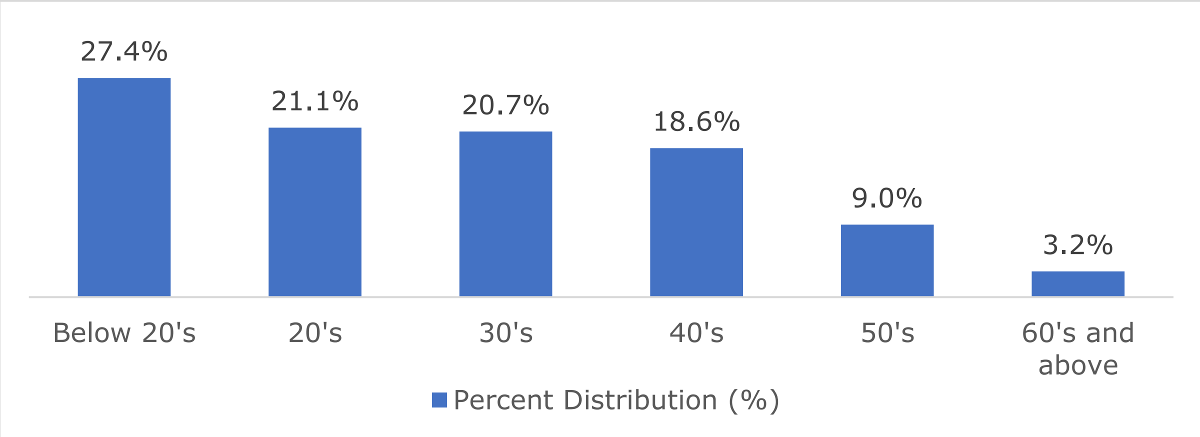


Figure 36: Percentage distribution of e-Commerce consumers by age group

URBAN-RURAL

The percentage distribution of e-Commerce consumers was higher in rural areas, at 63.6%, than in urban areas, at 36.4%. However, when looking at the adoption rate, it was found that urban areas had a higher adoption rate. In urban areas, 79.3% of consumers engaged in e-Commerce activities, while in rural area, the adoption rate was slightly lower at 77.5% (Figure 37).

Compared to ECS 2018, the adoption rate between urban and rural had significantly reduced, shrinking from 24.6 pp to just 2.2 pp. This deduction aligns with the increase in mobile-broadband penetration rate, rising from 113.0% in 2018 to 126.5% in 2022. Accordingly, the increased access to mobile Internet among a larger portion of the population indicates a narrowing of the digital gap between urban and rural areas, allowing more participation in e-Commerce activities.

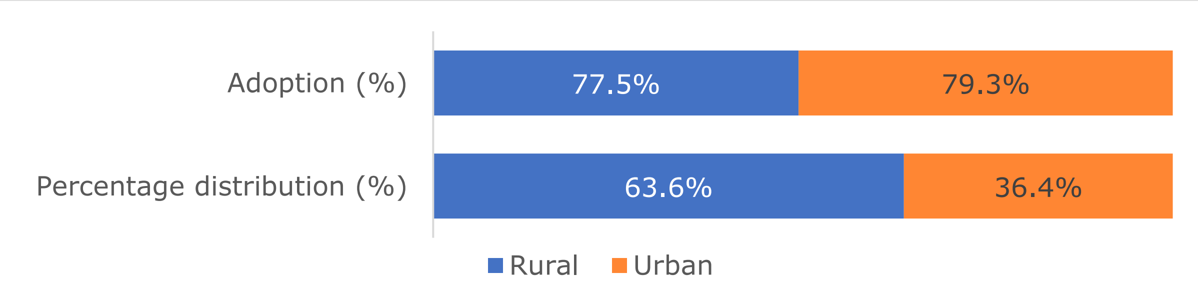


Figure 37: Percentage distribution and adoption rate of e-Commerce consumers by urban-rural

EMPLOYMENT AND CURRENT EDUCATIONAL STATUS

About six out of ten e-Commerce consumers (63.6%) are employed, including self-employment.

This is followed by full time students at 22.6%. Of which 53.9% were in secondary school while 44.2% were in college or university and the remaining 1.9% are in primary school. In addition, e-Commerce consumers in Malaysia also consists of 13.9% unemployed consumers, including housewives and 1.9% of pensioners.

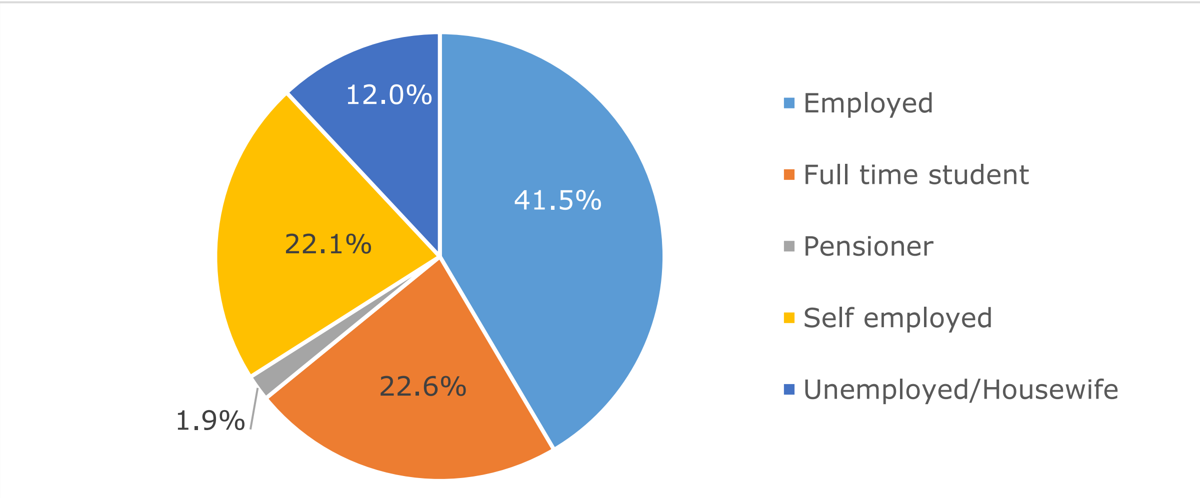


Figure 38: Percentage distribution of e-Commerce consumers in Malaysia by employment

SECTION 6: CONCLUSION

Global e-commerce was expected to experience a robust compound annual growth rate (CAGR) of 11.4% between 2020 and 2025[9]. Meanwhile, Malaysia's e-commerce sector was projected to exhibit an even more impressive CAGR of 14.3% from 2020 to 2024[10]. The thriving e-commerce landscape in Malaysia, with a substantial 78.3% of the population engaged in online shopping, demonstrates the nation's immense growth potential in this domain.

Among pivotal factor influencing consumers to embrace online shopping and sales is accessibility. Remarkably, Malaysia boasted a staggering 94.8% smartphone user penetration in 2021[11], reflecting the nation's profound digital connectivity. Smartphones have become integral for daily tasks, particularly in the realm of e-commerce, where they facilitate seamless and on-the-go purchases.

Further, E-commerce has become increasingly appealing due to its effortless, purchasing experience, a wide array of competitive delivery choices, and exceptional post-sales customer care, including hassle-free product returns. As a result, an impressive 92.2% of consumers report high satisfaction levels with their online shopping journeys. Leveraging the power of the Internet and social media, consumers stay well-informed about the wealth of offerings that the e-commerce realm has to offer.

Despite the formidable challenges posed by the COVID-19 pandemic, the e-commerce market not only survived, but thrived. When the Movement Control Order (MCO) was enforced in early 2020, e-commerce proved to be a lifeline for many people, providing them with the means to acquire essential items

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[9]Source: Statista, "Retail e-commerce sales CAGR from 2022 to 2025, by country", URL: https://www.statista.com/forecasts/220177/b2c-e-commerce-sales-cagr-forecast-for-selected-countries

[10] Source: International Trade of Admissions, "Malaysia - Country Commercial Guide", 2021, URL: https://www.trade.gov/country-commercial-guides/malaysia-ecommerce#:~:text=With%20an%20increase%20of%2037,24.7%20percent%20growth%20in%202021.

[11] Hand Phone Users Survey 2021 (HPUS 2021)

such as food, groceries, and vital supplies through online channels. Nevertheless, the surge in demand placed additional strain on courier services, resulting in extended delivery times. This should serve as a wake-up call for courier operators to enhance their delivery systems.

The insights obtained from ECS 2022 are expected to play a pivotal role in understanding the intricacies of Malaysia's digital economy. Consequently, ECS 2022 could serve as valuable input for shaping future policymaking in this ever-evolving sector.

SECTION 7: TABLES

Caution is required in the use of the estimates tabulated below.

While the MCMC takes every precaution to minimise non-sampling errors, which cannot be quantified, the estimates presented are also subject to sampling error, which is a measure of the chance variation that occurs because only a sample of the population is canvassed and not the entire population. The sampling error of an estimate is usually expressed as a percentage of that estimate to give the relative sampling error (RSE) of that estimate.

In general, estimates that are small are subject to high RSEs. As a guide, only estimates with RSEs of 25% or less are considered reliable for general use. Estimates with RSEs greater than 25% but less than or equal to 50% are denoted with one asterisk (*) in these tables and should be used with caution; while estimates with RSEs greater than 50% are denoted by two asterisks (**) and are considered too unreliable for general use. However, these estimates may be aggregated with others until an RSE of less than 25% is obtained. Confidence intervals for very small estimates should be based on the binomial distribution rather than the normal approximation to the binomial. As an alternative, the method of Korn and Graubard, 1998 may also be used.

For comparison, past data are appended together where available.

Percentages may not add up to 100 because of rounding.

Percentage of e-Commerce consumers				
	2018		2022	
	Percentage	RSE	Percentage	RSE
Users	51.2	2	78.3	1.4
Non-users	48.8	2.1	21.7	5.2

Knowledge on e-Commerce		
	Percentage	RSE
Yes	91.1	0.9
No	8.9	8.8

Visited e-Commerce website		
	Percentage	RSE
Yes	90.7	0.9
No	9.3	8.6

Reasons for not conducting e-Commerce activities		
**Multiple answers*	Percentage	RSE
Lack of knowledge, confidence or skills	29.0	9.2
Prefer to go to physical store	21.3	11.4
Not interested	18.0	12.6
Trust concerns	17.2	13.0
Security concern	16.9	13.1
Privacy concern	13.6	14.9
Unstable internet connectivity	9.3	18.4
Delivery concern	8.9	18.9
Unpleasant experience with online shop	7.5	20.8
Do not have address for postage	6.3	22.8
Website navigation is complicated	0.8**	66.1
Health and hygiene concerns	0.8**	67.7

Motivating factor to shop online		
**Multiple answers*	Percentage	RSE
Better prices offered	82.8	1.3
Convenience	79.7	1.4
Variety of products	59.1	2.3
Shipping (Free/delivery options)	54.3	2.5
Ease of payments	47.0	2.9
Movement Control Order (MCO)	46.0	3.0
Customer review/rating	43.1	3.2
Clear return policy	22.8	5.1

Conduct product research				
	2018		2022	
	Percentage	RSE	Percentage	RSE
Yes	87.2	0.8	89.8	0.9
No	12.8	5.3	10.2	8.2

Platform used for product research				
	2018		2022	
**Multiple answers*	Percentage	RSE	Percentage	RSE
Social media	44.1	2.4	61.6	2.2
Retailer's website	64.2	1.6	52.0	2.6
Search engine	70.5	1.4	46.5	3.0
Others*	N/A	N/A	2.0	19.2

*Others include social messaging apps, e-Commerce platform, etc.

Social media aspects influenced online shopping behaviour		
**Multiple answers*	Percentage	RSE
Reviews, comments and feedback	81.6	1.7
Promotional offerings	75.6	2.0
Advertisement	52.0	3.4
Current trends (e.g.: Fashion, etc.)	38.5	4.4

Device use to shop online				
	2018		2022	
**Multiple answers*	Percentage	RSE	Percentage	RSE
Smartphone	78.3	1.1	93.9	0.7
Netbook/Notebook/ Laptop	29.7	3.1	19.1	5.7
PC/Desktop	27.1	3.3	13.8	6.9
Tablet	6.2	7.9	4.9	12.1
Smart TV	1.1	19.5	0.9	29.3

Challenges while shopping via mobile devices		
**Multiple answers*	Percentage	RSE
Need to enlarge image on the screen	45.1	3.1
Limited product information	29.1	4.3
Need to use desktop version	14.7	6.7
Website is not compatible with mobile version	12.9	7.2
Others*	0.6*	35.8

*Others include unwanted advertisements that cover up screen

Frequency of online shopping		
	Percentage	RSE
Daily	1.1*	26.3
Few times in a week	10.2	8.3
Few times in a month	61.9	2.2
Few times in a year	25.1	4.8
Once a year	1.7	21.4

Usual day to shop online		
**Multiple answers*	Percentage	RSE
Normal day	71.4	1.7
Off day/Holiday	52.0	2.6

Usual time to shop online		
	Percentage	RSE
Morning (8:00am - 11:59am)	8.9	9.0
Afternoon (12:00pm - 7:59pm)	33.2	4.0
Night (8:00pm - 11:59pm)	53.9	2.6
Midnight and beyond (12:00 am - 7:59am)	4.0	13.6

Number of transactions in the last twelve months		
	Percentage	RSE
Less than 10	59.9	2.3
10 - 20	27.5	4.5
20 - 30	6.5	10.5
30 - 40	2.5	17.3
40 - 50	1.0*	27.6
More than 50	2.5	17.4

Location of seller		
	Percentage	RSE
Local	56.2	2.5
Foreign	5.3	11.8
Both local & foreign	33.4	3.9
Do not know	5.1	12.0

Foreign seller				
	2018		2022	
**Multiple answers*	Percentage	RSE	Percentage	RSE
China	84.8	1.2	97.0	0.8
Indonesia	1.2	24.8	13.3	11.4
South Korea	6.5	10.6	8.3	14.9
Hong Kong	5.4	11.7	4.7	20.1
Taiwan	2.2	18.7	4.1	21.8
United States	15.9	6.4	2.7*	27.0
Thailand	1.3	24.1	2.7*	27.0
Singapore	2.3	18	2.4*	28.7
Japan	4.4	13.1	2.0*	31.6
India	1.2*	25.7	0.7**	52.3
Others	N/A	N/A	1.3*	38.6

*Others include United Kingdom, Austria and Hungary

Product categories				
	2018		2022	
**Multiple answers*	Percentage	RSE	Percentage	RSE
Travel Products	37.9	2.6	23.5	2.8
Prepaid Top-up	33.5	2.8	64.4	4.4
Clothing & Accessories	68.7	1.4	78.7	5.8
ICT/Gadgets/sports	56.1	1.8	65.7	4.5
Internet Content	24.8	3.5	28.7	3.0
CD/DVD/Publications	13.7	5.1	12.3	2.6
Food essentials	43.7	2.3	67.4	4.6
E-government services and other financial products	28.9	3.2	38.3	3.2

Payment method		
**Multiple answers*	Percentage	RSE
Online banking	68.3	1.9
Cash on delivery	23.9	4.9
Debit card	19.8	5.5
Ask someone to pay	17.6	6.0
Bank transfer via ATM/CDM	16.8	6.1
Third party online payment service	16.0	6.3
Credit card	9.8	8.4
Prepaid gift card/online voucher	2.2	18.4
Points from rewards or redemption	1.8	20.3
Others*	2.3	18.1

*Others include cash payment at 7-eleven stores

Third party online payment service		
**Multiple answers*	Percentage	RSE
Shopee Pay	71.9	4.3
Touch'n Go e-wallet	60.6	5.6
Boost	32.9	9.8
GrabPay	23.7	12.4
Lazada Wallet	18.2	14.6
IPay88	12.6	18.1
PayPal	10.3	20.4
MOLPay	7.4	24.3
Google Pay	5.0*	30.0
e-GHL	5.0*	30.1
BigPay	4.0*	33.6
WeChat Pay	0.7**	83.0
Alipay	0.3**	117.5
Others*	1.5**	55.4

*Others include S Pay Global

Delivery location		
	Percentage	RSE
Home	76.2	1.6
Workplace	16.0	6.4
Post/Courier office	4.9	12.3
Parcel locker	0.1**	117.7
Pick up at retail outlet	1.0*	27.9
Someone else's home	1.6	21.9
Others*	0.2**	58.8

*Others include PEDi and place of study

Reasons to not deliver at home		
**Multiple answers*	Percentage	RSE
Nobody at home	49.3	5.8
Easier to pick-up parcel at my convenient time (e.g.: after office hour)	42.5	6.7
The location is nearer to my office/along my way home	16.4	12.9

Most important delivery factors		
**Multiple answers*	Percentage	RSE
Goods deliver at the preferred location	55.3	2.5
Receive goods/services within the stipulated time	39.6	3.4
Free/Low delivery cost with 3-5 days delivery	56.1	2.4
Premium delivery cost with 24 hours-2 days delivery	13.0	7.1

Most important delivery aspects		
**Multiple answers*	Percentage	RSE
Fast delivery	80.7	1.3
Free delivery	66.8	1.9
Ability to track delivery	55.4	2.5
Options to choose courier providers	46.1	3.0
Weekends/Public holidays delivery	26.4	4.6
Courier customer service	17.8	5.9
Time delivery slots	17.7	5.9
Contactless delivery	12.9	7.2
Others*	0.1**	80.2

*Others include wide coverage of delivery, proper handling of packages

Experience in returning products		
	Percentage	RSE
Yes	25.1	4.2
No	74.9	1.7

Items received in returning products		
**Multiple answers*	Percentage	RSE
New goods/replacement	57.5	4.8
Rebate	5.5	23.0
Full refund	59.6	4.6

Reason for product return		
**Multiple answers*	Percentage	RSE
Damaged / Defect	56.8	4.9
Wrong item delivered	56.0	4.9
Not as advertised	19.7	11.2
Missing parts/accessories	19.4	11.3
Expired/Expiring	7.7	19.3
Does not fit	7.5	19.6
Change of mind	6.3	21.5
May not be authentic	5.1	24.1
Has signs of usage	4.5*	25.7
Others*	1.7	42.6

*Others include did not receive the product entirely and product had run out of stock

Satisfaction on purchasing experience		
	Percentage	RSE
Completely satisfied	17.5	6.1
Slightly satisfied	28.1	4.5
Satisfied	46.6	3.0
Dissatisfied	0.4*	45.5
Slightly dissatisfied	1.4	23.3
Completely dissatisfied	0.9*	28.8
Neutral	5.1	12.0

Satisfaction on delivery service		
	Percentage	RSE
Completely satisfied	13.0	7.2
Slightly satisfied	27.0	4.6
Satisfied	51.1	2.7
Dissatisfied	1.4	23.3
Slightly dissatisfied	1.9	20.0
Completely dissatisfied	1.0*	27.6
Neutral	4.6	12.7

Level of concern on security issues				
	2018		2022	
	Percentage	RSE	Percentage	RSE
Completely concerned	8.4	6.7	6.7	10.4
Slightly concerned	18.1	4.3	22.5	5.2
Concerned	27	3.3	35.5	3.8
Unconcerned	33.3	2.9	25.5	4.8
Slightly unconcerned	5.1	8.7	7.6	9.7
Do not concerned at all	3.1	11.2	2.2	18.7

Areas of concern on security		
**Multiple answers*	Percentage	RSE
Fake online shop	69.2	2.3
Trust concern (e.g.: Low chances of goods delivery)	53.8	3.2
Bank details theft	51.1	3.4
Identity theft	45.2	3.8
Credit card/debit card/bank fraud	41.0	4.2
Hygiene practice by seller and courier	18.4	7.3

Level of concern on privacy issues				
	2018		2022	
	Percentage	RSE	Percentage	RSE
Completely concerned	12	5.5	8.9	8.9
Slightly concerned	17.1	4.4	22.7	5.1
Concerned	29.9	3.1	37.5	3.6
Unconcerned	29.6	3.1	21.9	5.3
Slightly unconcerned	4.2	9.6	6.8	10.3
Do not concerned at all	2.6	12.2	2.1	19.0

Areas of concern on privacy		
**Multiple answers*	Percentage	RSE
Exposure of personal details	83.6	1.5
Inappropriate sharing data for marketing purposes	70.6	2.2
Monitoring/activity tracking	43.2	3.8

Experiences on fraudulent activities		
	Percentage	RSE
Yes	16.1	6.4
No	83.9	1.2

Type of fraud				
	2018		2022	
**Multiple answers*	Percentage	RSE	Percentage	RSE
Identity theft	75.5	3.4	8.1	23.5
Did not receive goods/services	32.2	8.6	68.5	5.5
Financial fraud	7.3	21	35.8	9.7
Others*	N/A	N/A	7.0*	25.4

*Others include receiving fake product/ not as advertised

E-commerce activities conducted before MCO		
	Percentage	RSE
Purchasing online	75.8	1.6
Selling online	12.3	7.3
No	22.9	5.1

E-commerce activities conducted during MCO		
	Percentage	RSE
Purchasing online	88.6	1.0
Selling online	18.6	5.8
No	8.3	9.1

Average amount spent online before MCO		
	Percentage	RSE
Less than RM 50	19.3	6.5
RM50 to less than RM100	36.5	4.2
RM100 to less than RM200	26.9	5.2
RM200 to less than RM500	12.9	8.2
RM500 to less thank RM1,000	2.6	19.4
RM1,000 and above	1.7	24.0

Average amount spent online during MCO		
	Percentage	RSE
Less than RM50	10.7	8.4
RM50 to less than RM100	29.8	4.5
RM100 to less than RM200	31.9	4.3
RM200 to less than RM500	19.9	5.9
RM500 to less thank RM1,000	5.1	12.6
RM1,000 and above	2.5	18.2

Types of goods bought online before MCO		
	Percentage	RSE
Travel products	8.3	9.1
Prepaid top-up	31.4	4.1
Fashion, cosmetics and accessories	44.3	3.1
Children's product	19.3	5.6
Gadgets & ICT equipment/services	28.0	4.4
Automotive parts	10.2	8.2
Paid Internet content	9.6	8.5
Physical reading materials/CD/DVD	3.0	15.7
Online food ordering	25.2	4.8
Groceries, health and essential items	18.2	5.8
e-Government services	5.6	11.3
Financial products (Insurance, Zakat, etc.)	5.6	11.3
e-booking (Movie ticket, Run registration, etc.)	4.2	13.2
Ride-hailing (GrabCar, MyCar, EzCab, etc.)	8.5	9.0

Types of goods bought online during MCO		
	Percentage	RSE
Travel products	7.5	9.7
Prepaid top-up	40.2	3.4
Fashion, cosmetics and accessories	54.2	2.5
Children's product	25.2	4.7
Gadgets & ICT equipment/services	34.9	3.8
Automotive parts	11.8	7.5
Paid Internet content	13.9	6.8
Physical reading materials/CD/DVD	5.6	11.3
Online food ordering	40.0	3.4
Groceries, health and essential items	30.3	4.2
e-Government services	10.9	7.9
Financial products (Insurance, Zakat, etc.)	9.4	8.5
e-booking (Movie ticket, Run registration, etc.)	3.0	15.6
Ride-hailing (GrabCar, MyCar, EzCab, etc.)	9.8	8.3

Average days for parcel delivery before MCO		
	Percentage	RSE
2	19.1	6.5
3	27.6	5.1
4	17.2	6.9
5	15.4	7.4
6	3.4	16.8
7	9.2	9.9
More than 7 days	8.0	10.8

Average days for parcel delivery during MCO		
	Percentage	RSE
2	8.1	9.8
3	15.8	6.8
4	19.9	5.9
5	19.3	6.0
6	7.0	10.7
7	11.5	8.1
More than 7 days	18.4	6.2

Gender distribution of e-Commerce consumers				
	2018		2022	
	Percentage	RSE	Percentage	RSE
Male	40.5	2.4	47.4	3.2
Female	59.5	1.7	52.6	2.9

Employment distribution of e-Commerce consumers				
	2018		2022	
	Percentage	RSE	Percentage	RSE
Employed	66.1	1.4	41.5	3.7
Self employed	17.7	4.3	22.1	5.8
A full-time student (Including practical training)	9.2	6.3	22.6	5.8
Unemployed (Including housewife)	5.7	8.1	12.0	8.4
Pensioner	1.3	17.6	1.9	22.5

Age distribution of e-Commerce consumers				
	2018		2022	
	Percentage	RSE	Percentage	RSE
Below 15	0.0**	100	2.2	20.6
15 - 19	4.5	9.4	25.2	5.3
20 - 24	16.2	4.6	10.2	9.1
25 - 29	20	4.1	10.9	8.8
30 - 34	20.3	4	12.2	8.2
35 - 39	15.7	4.7	8.5	10.1
40 - 44	9.4	6.3	11.1	8.7
45 - 49	5.9	8.1	7.5	10.8
50 - 54	4.1	9.9	5.9	12.3
55 - 59	2.2	13.6	3.2	17.0
60 - 64	1	20.8	1.6	24.3
65 and above	0.6*	26.6	1.6	23.8

Average monthly income distribution of e-Commerce consumers				
	2018		2022	
	Percentage	RSE	Percentage	RSE
RM1,000 and below	4	10	44.4	3.5
RM1,000 - RM3,000	29.2	3.2	41.3	3.7
RM3,000 - RM5,000	25.4	3.5	9.6	9.5
RM5,000 and above	24.7	3.6	4.7	14.1

Education attainment distribution of e-Commerce consumers				
	2018		2022	
	Percentage	RSE	Percentage	RSE
Degree or higher (include Advanced Diploma)	44.3	2.3	17.0	6.8
Diploma	23	3.7	17.6	6.6
STPM/STAM/Certificate/UEC-Senior Middle Three	6.3	7.7	6.1	12.0
SPM/SPVM	21.2	3.9	32.5	4.4
Sijil 4 Thanawi/SMA	0.1	70.7	0.9*	31.7
PT3/PMR/UEC-Junior Middle Three	2.1	13.9	3.4	16.4
Secondary school	1.7	15.5	13.3	7.8
Primary school	1.2	18.5	3.5	16.0
None	0.2*	40.8	5.6	12.6

Urban-rural distribution of e-Commerce consumers				
	2018		2022	
	Percentage	RSE	Percentage	RSE
Urban	81.9	0.9	36.4	10.8
Rural	18.1	4.3	63.6	10.9

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