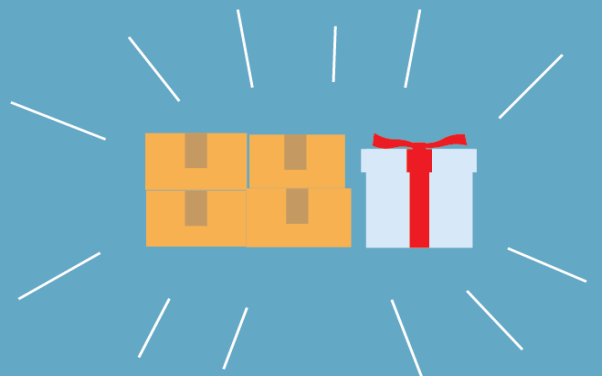
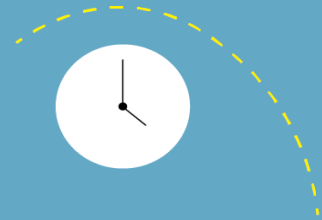




SURUHANJAYA KOMUNIKASI DAN MULTIMEDIA MALAYSIA
MALAYSIAN COMMUNICATIONS AND MULTIMEDIA COMMISSION



e-Commerce Consumers Survey 2018

MALAYSIAN COMMUNICATIONS AND MULTIMEDIA COMMISSION, 2018

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SECTION 1: EXECUTIVE SUMMARY

The e-Commerce Consumers Survey 2018 (ECS 2018) is the first purpose built survey conducted by Malaysian Communications and Multimedia Commission (MCMC) to understand characteristics and behaviours of e-Commerce consumers¹ in Malaysia. In addition, the survey also covers challenges faced by consumers to adopt e-Commerce.

Based on sampling methodology, the sample for this survey reached 2,401 respondents at national level. This is to give a confidence level of 95% and precision of $\pm 2\%$. Respondents were selected at random and all interviews were conducted through computer assisted telephone interview (CATI) system.

The survey focused on selected key indicators including the following:

- i. e-Commerce experiences;
- ii. purchasing;
- iii. product delivery;
- iv. product return;
- v. security and privacy; and
- vi. demographics and socio-economics background of consumers and non-consumers.

The survey draws attention to the following findings:

- i. Percentage of e-Commerce consumers at national level stood at 51.2%, adoption of e-Commerce is higher among adults who were in their 20's and

¹ For the purpose of this survey, e-Commerce consumers defined as respondents who have make online purchasing or selling (according to e-Commerce definition) in the last 12 months.

30's including those with relatively high average monthly income (RM3,000 and above).

- ii. Shoppers shop online for various reasons, mainly on convenience, accessibility, pricing, selection, product information and ease of payment.
- iii. Smartphone is the most popular device for shoppers to purchase goods and services online (78.3%), particularly among those below 30 years old. In contrast, those who were in their 40's preferred to use laptop, notebook and desktop for e-Commerce transaction.
- iv. Online banking is the most preferred payment method for e-Commerce transaction (62.1%). This is followed by credit card (32.7%), debit card (28.5%) and cash on delivery (17.3%). Cash on delivery is prevalent among retirees and housewives.
- v. On average, an individual in Malaysia spent around RM470 per transaction in the last twelve months. Clothing and accessories were the most popular product categories purchased online.
- vi. Free delivery also influenced decision of online shoppers to shop online. Almost 50% of consumers opted for free or low delivery cost with delivery within five days. Only 9.9% opted for premium delivery cost with delivery within two days.
- vii. Majority of online shoppers (57.2%) prefer home delivery. Meanwhile, the remaining 42.8% choose other than home delivery due to unavailability of people at home and convenience to collect parcel at their own time and location.

- viii. Security and privacy related issues are relatively high among online shoppers with 53.4% are concerned on cards fraudulent, fake online retailers, identity theft, etc. Meanwhile 59.0% cited that they are concerned on privacy issues such as misused of information, browser tracking, etc.

SECTION 2: INTRODUCTION

BACKGROUND OF SURVEY

The e-Commerce market in Malaysia is showing a positive trend, with gross value added contributed 6.3% to gross domestic product (GDP) in 2017. Furthermore, value added for e-Commerce increased from RM75.0 billion in 2016 to RM85.8 billion in 2017². The growth of e-Commerce reflects the need to measure and track the adoption of e-Commerce at national and state level. Therefore, MCMC commissioned e-Commerce Consumers Survey 2018 (ECS 2018) as a purpose built survey to gain insights pertaining to behaviours of e-Commerce consumers as well as to identify recent trends towards online shopping in Malaysia. Data gathered from this survey could assist MCMC's internal and external stakeholders to support their policy development needs.

SCOPE

ECS 2018 distinguishes between core 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 taken into account during the process of developing questionnaires. Table 1 illustrates the core and trends data captured in ECS 2018:

Table 1 : Types Of Data

Core Data	i. Demographic & socio-economics Gender, age group, strata, employment, average monthly income
	ii. Consumer behaviour: Experiences, reasons not performing e-Commerce transactions
Trends Data	i. Purchasing
	ii. Delivery
	iii. Product return
	iv. Security and privacy

² Source: Information and Communication Technology Satellite Account 2017, Department of Statistics Malaysia (DOSM)

SURVEY LIMITATIONS AND CHALLENGES

In the course of conducting this survey, some limitations and challenges were encountered. The limitations and challenges are described as follows:

- Difficulties to reach required number of samples. For this survey, a total of 35,147 calls were made to achieve 5,348 samples consists of e-Commerce consumers and non-consumers. Of the total calls made, we received no response from 54.3% respondents, 5.8% refused to participate and 22.6% numbers were inactive or invalid numbers. In other words, we have to make 15.4 calls to get one success interview.
- Efforts to reach respondents became more difficult when selected CATI Centre's telephone numbers were reported as an unwanted call with a mobile apps named Truecaller. Mobile users used this app to block calls and SMSes from these unwanted numbers. As a result, we are not able to reach about 48 number of respondents during the survey period.
- Samples collected at the state level was only adequate to calculate the level of e-Commerce adoption for each state due to time and budget constraints. This limitation has not allowed us to analyse trends and behaviours of e-Commerce users for each state. Moreover, reaching the number of respondents in states with small population such as Perlis, W.P. Labuan and W.P. Putrajaya was proven to be difficult.
- Due to the same reasons mentioned above, samples collected at the national level was only adequate to analyse trend data based on online shopper behaviours, while core data involves online shoppers and sellers as according to e-Commerce definition.

SECTION 3: METHODOLOGY

METHODOLOGY AND ANALYSIS

The sample population was drawn from users of mobile-cellular with Mobile Station International Subscriber Directory Number (MSISDN) identical to randomly generated numbers. They are the main users of mobile-cellular number.

ECS 2018 was canvassed and administered using a Computer Assisted Telephone Interview (CATI) system operating out of MCMC CATI Centre in Cyberjaya. Fieldwork for this survey started on 28 August 2018 and ended on 27 November 2018. The survey adopted confidence level of 95% and precision of $\pm 2\%$ for national level, and reached to a sample of 2,401 e-Commerce consumers. As for the state level, confidence level was at 95% and $\pm 7\%$ precision to reach 200 respondents for each state.

There was only one stage of sample selection as the survey adopted a simple random sample (SRS). Sampling was done with probability proportional to prefix in terms of subscriptions for mobile-cellular.

Data quality check was administered throughout the survey fieldwork. Basic frequency count was computed to assess the results pattern. Cross tabulation was imposed between relevant indicators to identify significant relationships that would deduce meaningful inferences pertinent to the objective of the survey.

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 are included as supplementary data to support any findings. The definitions of terminologies adopted in this survey were referenced to the international standards and existing frameworks.

Full results of the survey are appended in the form of percentage tables at the end of this report.

DEFINITION

E-Commerce³

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. 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. 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 OECD Guide to Measuring the Information Society 2011

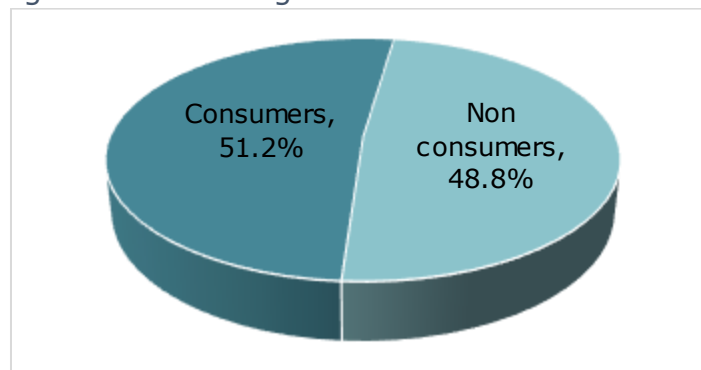
SECTION 4: MAIN FINDINGS

E-COMMERCE EXPERIENCE

E-COMMERCE CONSUMERS

Broadly, the survey determined that percentage of e-Commerce consumers⁴ in Malaysia stood at 51.2%. Comparing with other countries in the region, Malaysia is number two after Singapore as reported by Statista⁵. Approximately, there were 16.6 million⁶ e-Commerce consumers in 2018. Of this, 93.3% respondents claimed to be online shoppers only, 6.1% were online shoppers and sellers and the remaining 0.5% claimed to be seller only.

Figure 1: Percentage of e-Commerce consumers



However, awareness on e-Commerce in Malaysia was relatively high where 75.8% of respondents claimed to have knowledge on e-Commerce⁷ while 65.7% of

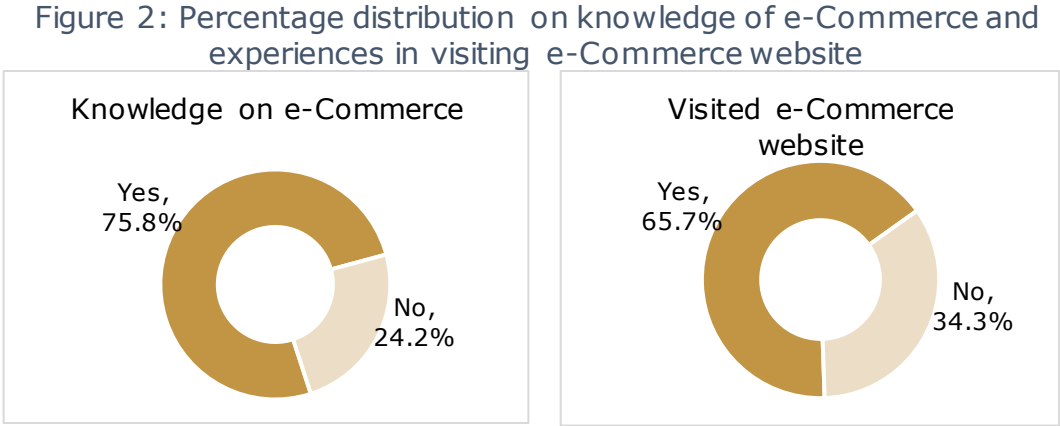
⁴ For the purpose of this survey, e-Commerce consumers defined as respondents who have make purchasing or selling (according to e-Commerce definition) in the last 12 months.

⁵ Source: Statista, "Digital Market Outlook: eCommerce," selected countries, 2018, reported in World Bank Group, Malaysia's Digital Economy, A New Driver of Development.

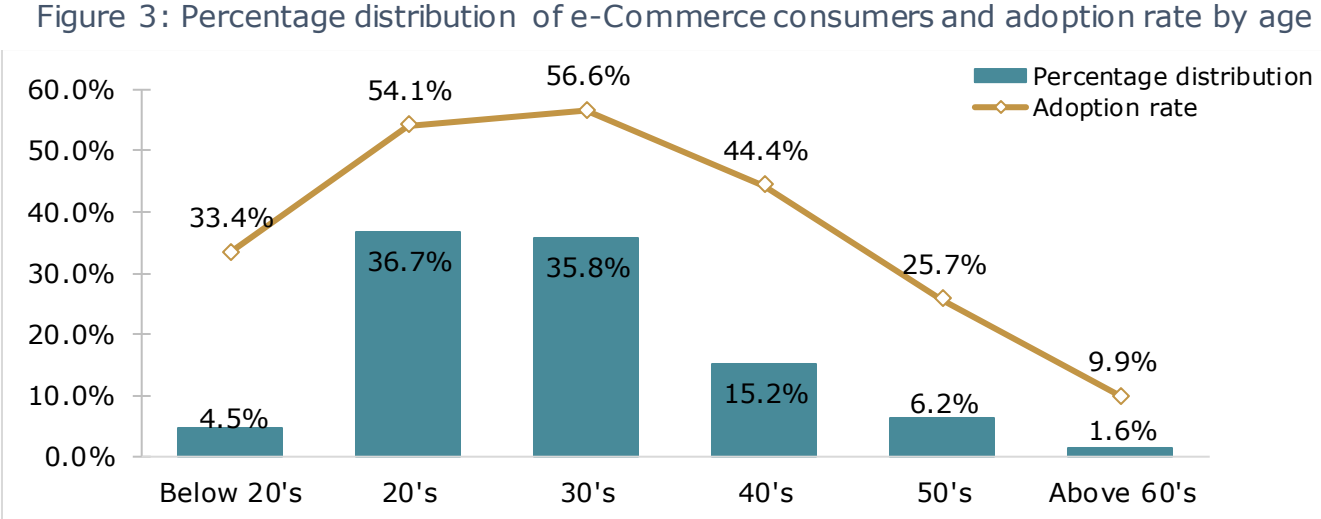
⁶ Computed based on Current Population Estimates, Malaysia, 2018, DOSM – November 2018 revision

⁷ Respondent's knowledge on e-Commerce is based on the e-Commerce definition.

respondents reported to visit any e-Commerce platform i.e. websites, mobile apps, etc. in the last twelve months (Figure 2).

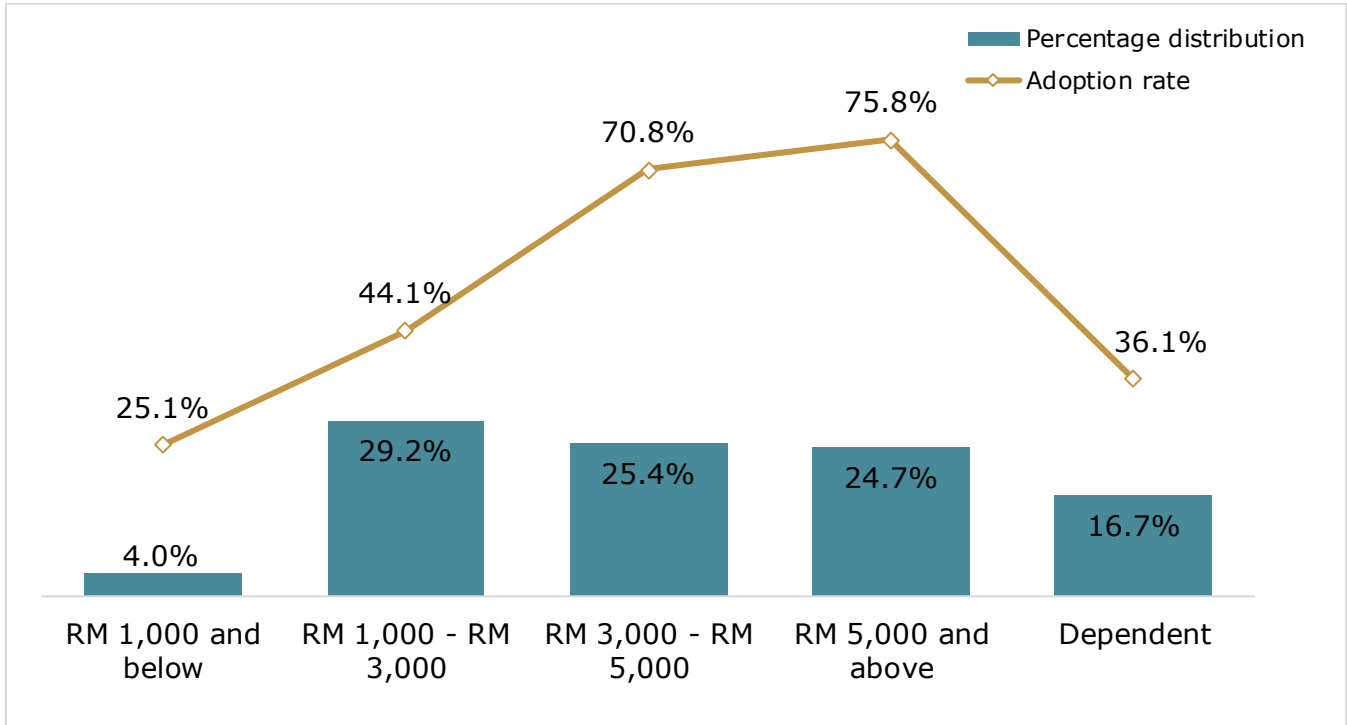


Adoption of e-Commerce were mainly comprising of adults in their 20's and 30's where they accounted 54.1% and 56.6% respectively. Besides, it is also apparent that the adoption rate and age are inversely correlated for respondents aged 40 and above (Figure 3).



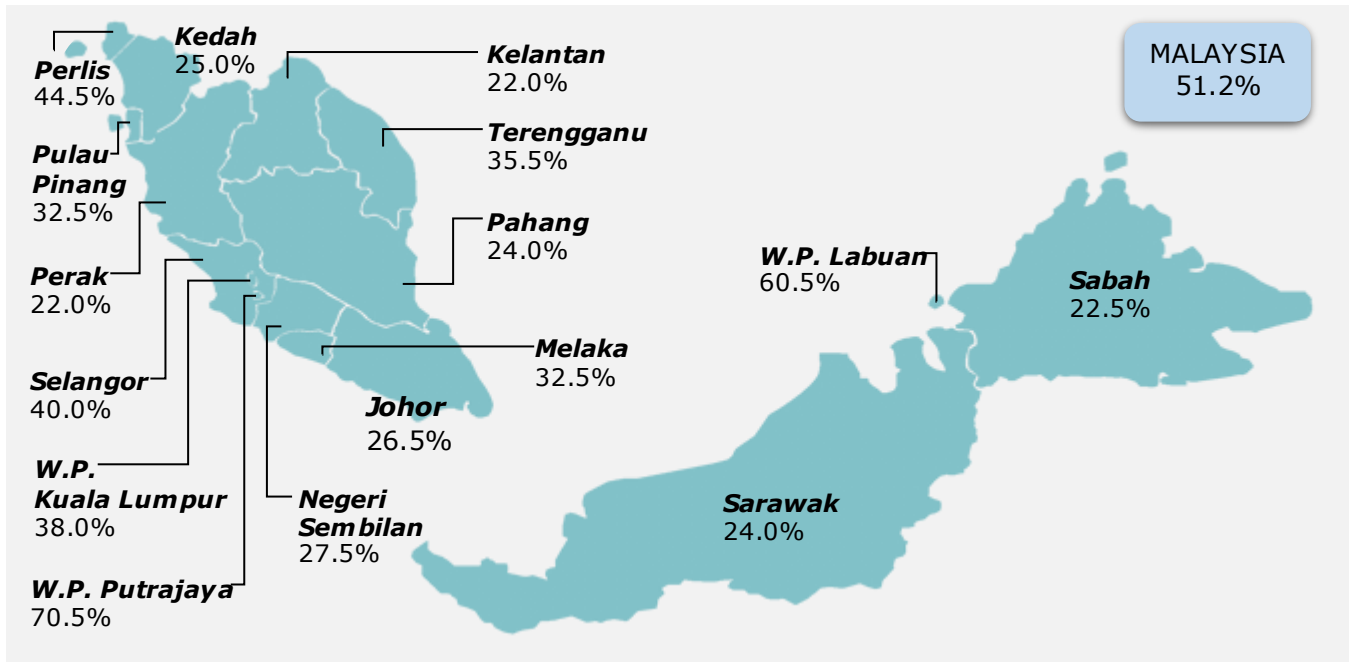
Consumers with higher income bracket (RM3,000 and above) have higher tendency to perform e-Commerce transaction as compared to those with low income level (Figure 4).

Figure 4: Percentage distribution of e-Commerce consumers and adoption rate by average monthly income



At the state level, Wilayah Persekutuan Putrajaya topped the list of e-Commerce adoption at 70.5%. This is followed by Wilayah Persekutuan Labuan and Perlis at 60.5% and 44.5% respectively. The adoption of e-Commerce consumers as shown in Figure 5 is calculated based on the population for each state. However, in absolute amount the percentage of e-Commerce adoption for each state is relative to its population.

Figure 5: e-Commerce adoption by state



NON E-COMMERCE CONSUMERS

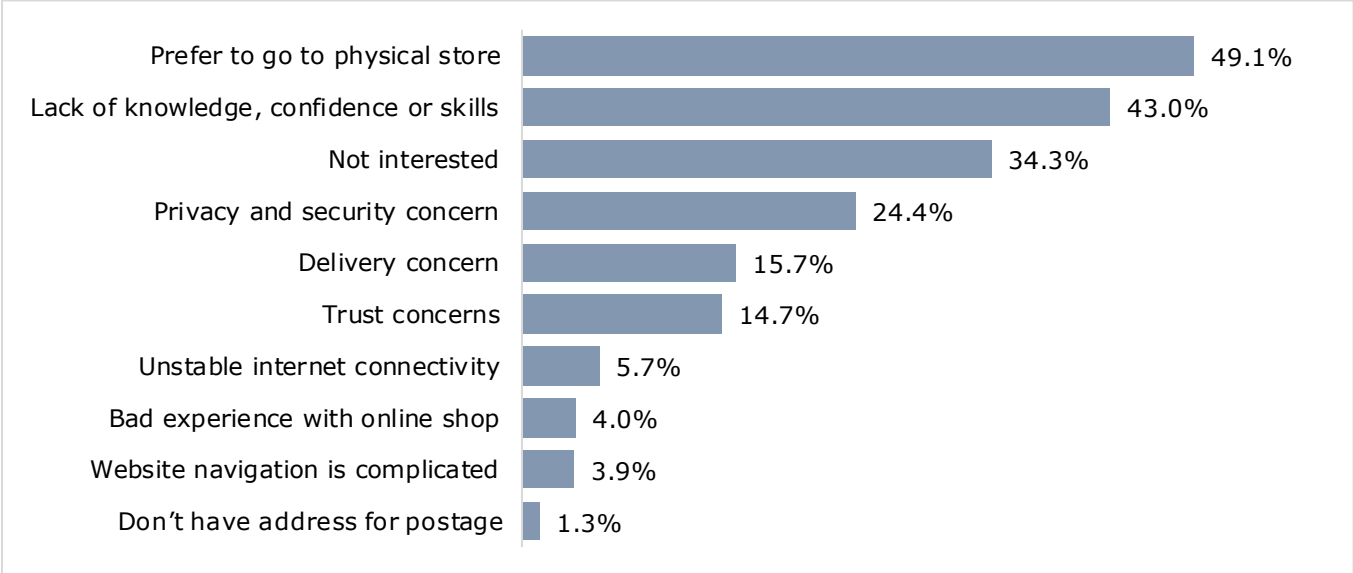
Despite the rise in e-Commerce, 48.8% of respondents were hesitant to conduct e-Commerce activities.

The main reason for not performing online shopping is because they prefer to shop at brick-and-mortar stores, this consists of 49.1% of non-e-Commerce consumers. Other reasons are lack of knowledge, confidence and skills (43.0%) as well as not interested (34.3%) in performing e-Commerce transaction.

Moreover, concerns on data security and privacy are also impacting the adoption of e-Commerce in Malaysia. Almost 25% of respondents said they did not perform online transaction due to this reason. Nonetheless, 50.6% of these respondents agreed to perform e-Commerce transaction if online retailers are certified by authorised agencies.

Other reasons include delivery (15.7%), trust (14.7%), unstable internet connectivity (5.7%), bad experience with online retailers (4.0%), complicated website navigation (3.9%) and unavailable postage address (1.3%).

Figure 6: Reasons for not conducting e-Commerce activities



PURCHASING

WHAT MOTIVATE ONLINE SHOPPERS TO SHOP ONLINE

Shoppers shop online for various reasons, mainly on convenience, accessibility, pricing, selection, product information and ease of payment.

Convenience is the main factor for shoppers to shop online as it gives opportunity for shoppers to shop 24/7 and accessible to various online shopping platforms. These features provide convenience for about eight in ten shoppers (84.4%) who cited this reason as a motivation factor for them to shop online.

Almost three quarters (73.0%) of shoppers stated that better prices offered by online retailers encourage them to shop online. Competitive pricing strategies by online retailers such as special deals, discount vouchers, festive sales, member

privileges, etc. have provided shoppers with options for cheaper pricing as compared to traditional channel.

Another determinant factor is the simpler buying process whereby, shoppers can easily do research and gather product information prior to any purchase. For instance, there are many platforms designed to simultaneously compare products and prices across different retailers i.e. Trivago, Skyscanner, etc. In addition, shoppers are able to visit number of online stores which offer wider choice of products that far exceeds the number of physical stores.

The survey shows that 87.2% of respondents conducted research on the products before they proceed for online purchasing. Of this, about seven out of ten respondents (70.5%) used search engines to find product information while 64.2% of respondents browsed retailers’ website to seek for product details and reviews.

Social media nowadays has evolved and become an impactful platform for businesses’ marketing strategies. As shown in Figure 7 and Figure 8 below, 44.1% of respondents who carried out product research used social media to validate product quality through reviews, comments and feedback (82.5%), discover promotion and discount (57.5%) and discover new and current trends (31.4%)

Figure 7: Percentage of e-Commerce consumers on product research and platform used

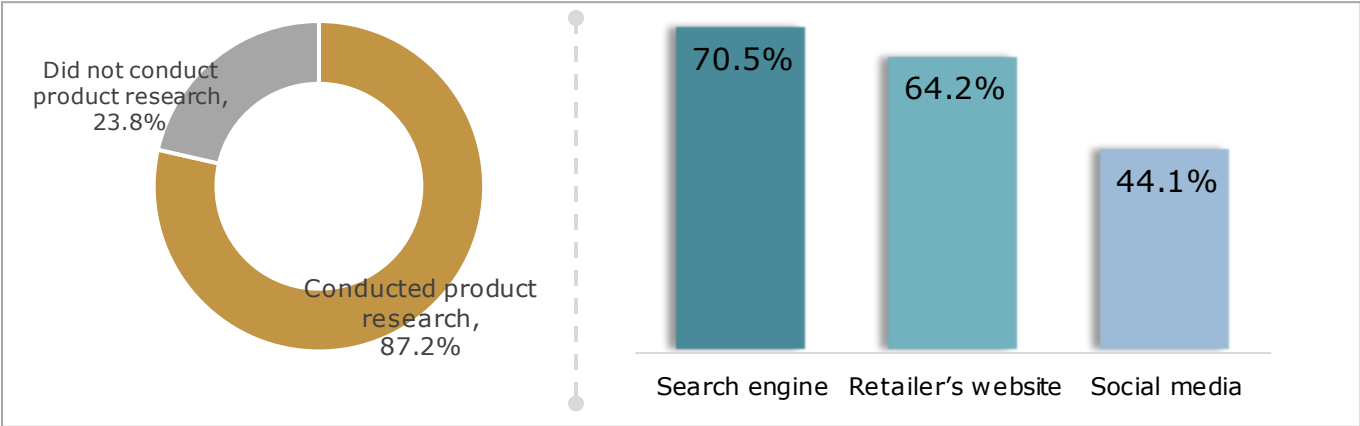
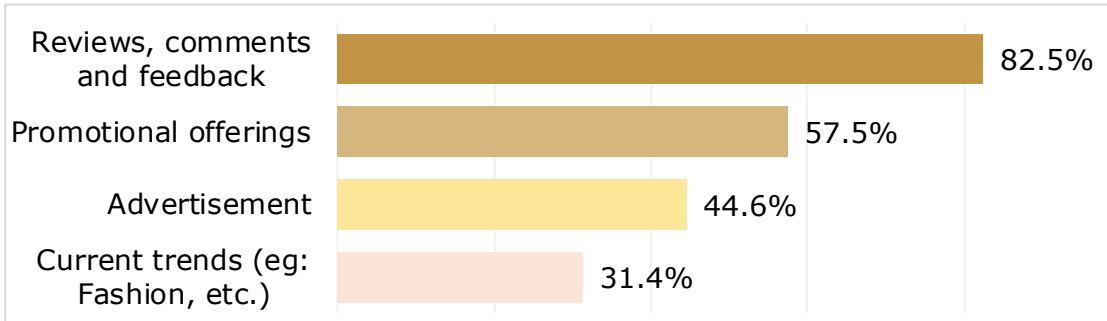


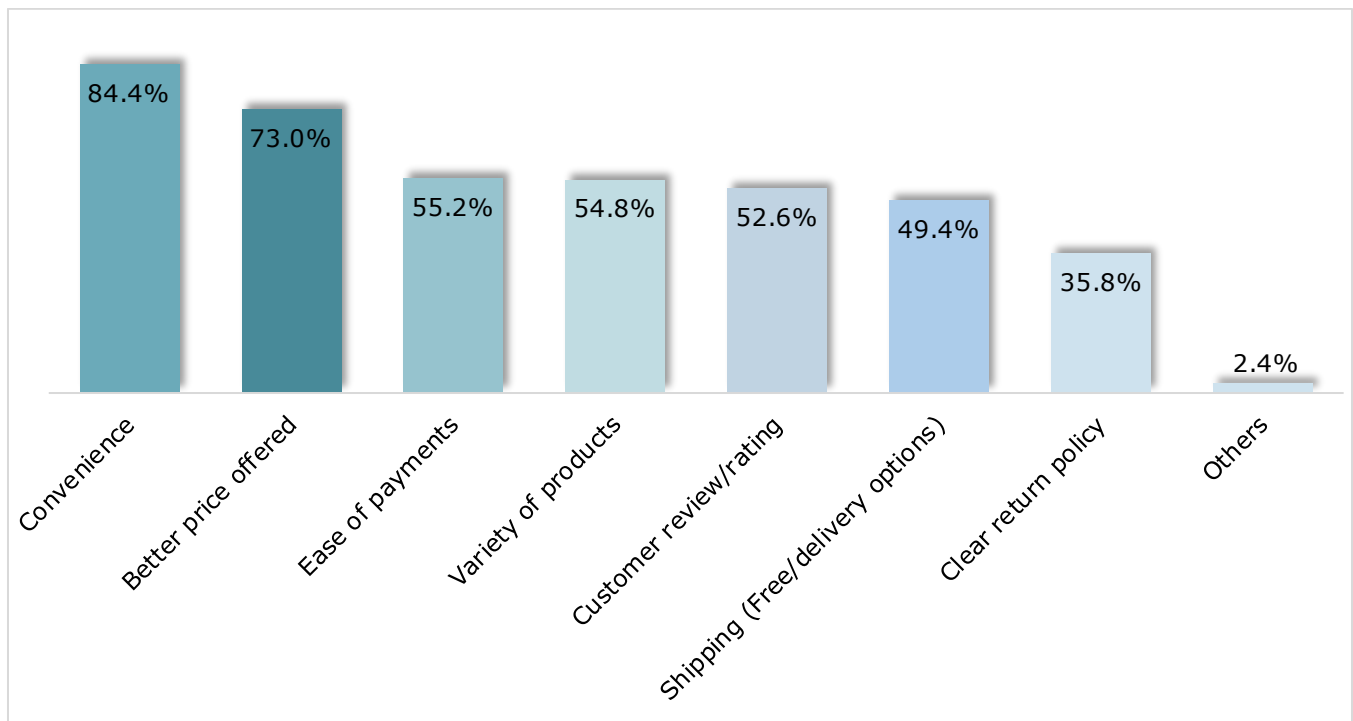
Figure 8: Social media aspects that influenced online shopping behaviour



Furthermore, ease of payment method is another key reason why shoppers shop online. Various types of payment method such as, online banking, credit card, cash on delivery, etc. give more flexible options for shoppers. Additionally, the advent of third party online payment such as PayPal, Alipay, MOLPay, iPay88, etc. have provided shoppers with alternative online payment.

Delivery options which are reliable, flexible and affordable constitute 49.5% factors as motivation to shop online.

Figure 9: Motivation factor for online shopping



PREFERRED DEVICE FOR ONLINE SHOPPING

According to the survey, smartphone is the most popular device used to shop online. More than three quarters of consumers (78.3%) cited that they used smartphone for online shopping. Preference toward mobile apps is not surprising as smartphone users are able to download e-Commerce apps on their device. Using mobile apps are convenient to shop online, especially if shoppers are not making a one-off visit to an online store. For starters, there is no need to remember a URL and login to access the shop⁸. Nonetheless, shopping experience through smartphone or other mobile device can be a stumbling block due to screen resolution issue. Slightly more than 70% of shoppers cited this issue when they were asked about challenges while performing e-Commerce transaction using mobile device. Almost 40.0% shoppers mentioned that product information is very limited when browsing through mobile device as compared with desktop while 32.2% stated they need to switch to desktop version to search for more product information.

Figure 10 : Device used to shop online

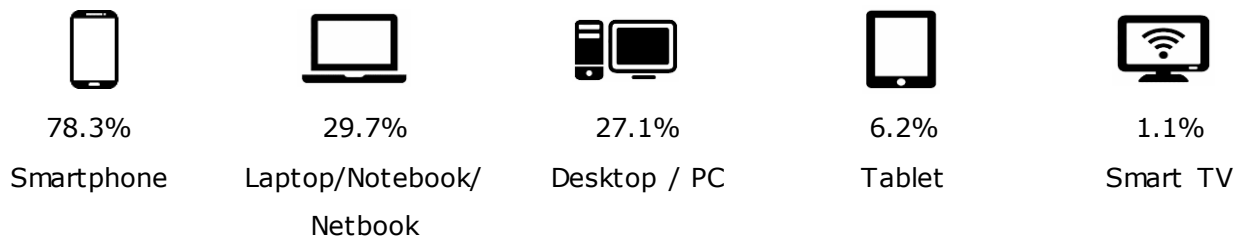
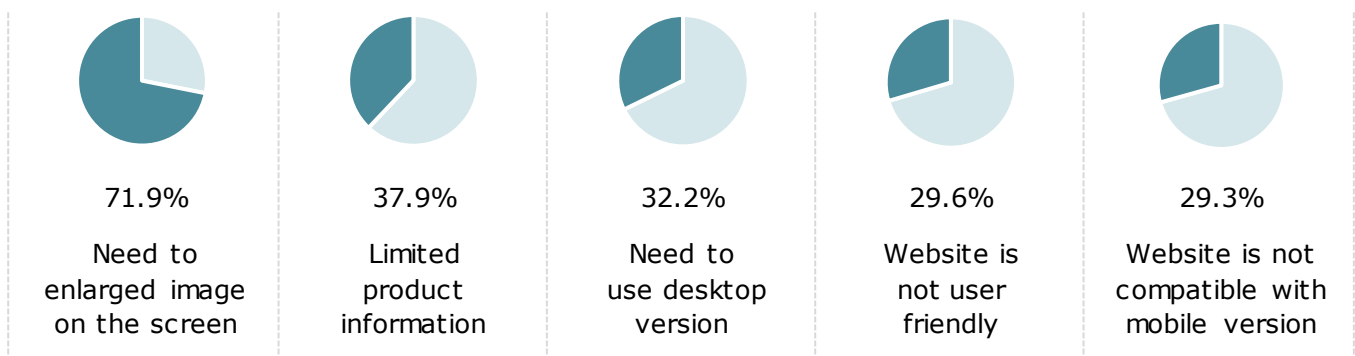


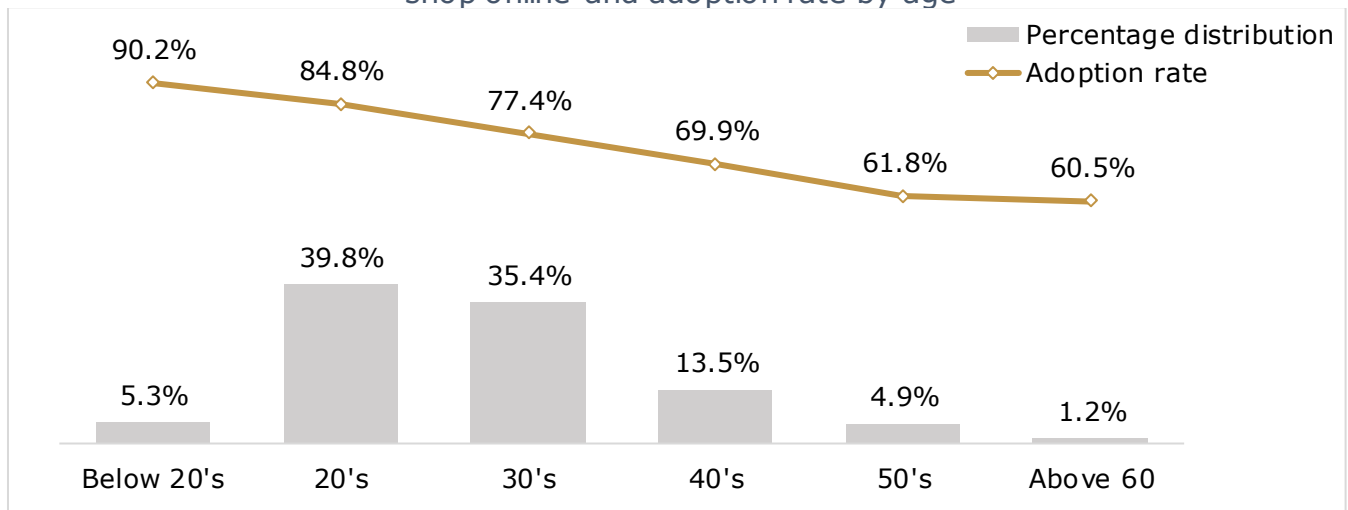
Figure 11: Challenges while shopping via mobile devices



⁸ <https://rubygarage.org/blog/benefits-of-mobile-app-for-ecommerce>

The used of smartphone to shop online was more popular among women than men (81.9% versus 75.9%). It was also more popular among younger consumers and being used by 90.2% of those below 20's, and 84.8% of those in their 20's (Figure 12).

Figure 12: Percentage distribution of e-Commerce consumers who used smartphone to shop online and adoption rate by age



Second most popular device (29.7%) that consumers used to shop online was laptop, notebook or netbook. These devices were more popular among consumers who were in their 40's (34.9%) compared to those below 20's (22.3%), and being used by more men than women (31.1% versus 27.7%).

Almost 3 out of ten (27.1%) respondents used desktop or PC to shop online. This device, was preferred by shoppers who were in their 40's (44.7%) and also favoured by more men than women (30.6% versus 21.9%).

FREQUENCY AND TIME OF PURCHASE

Among different age groups, younger shoppers aged below 40 made frequent online purchases than any other age group. The survey found that about 50.0% of these age groups shop online few times in a month.

Figure 13: Frequency of online shopping by age

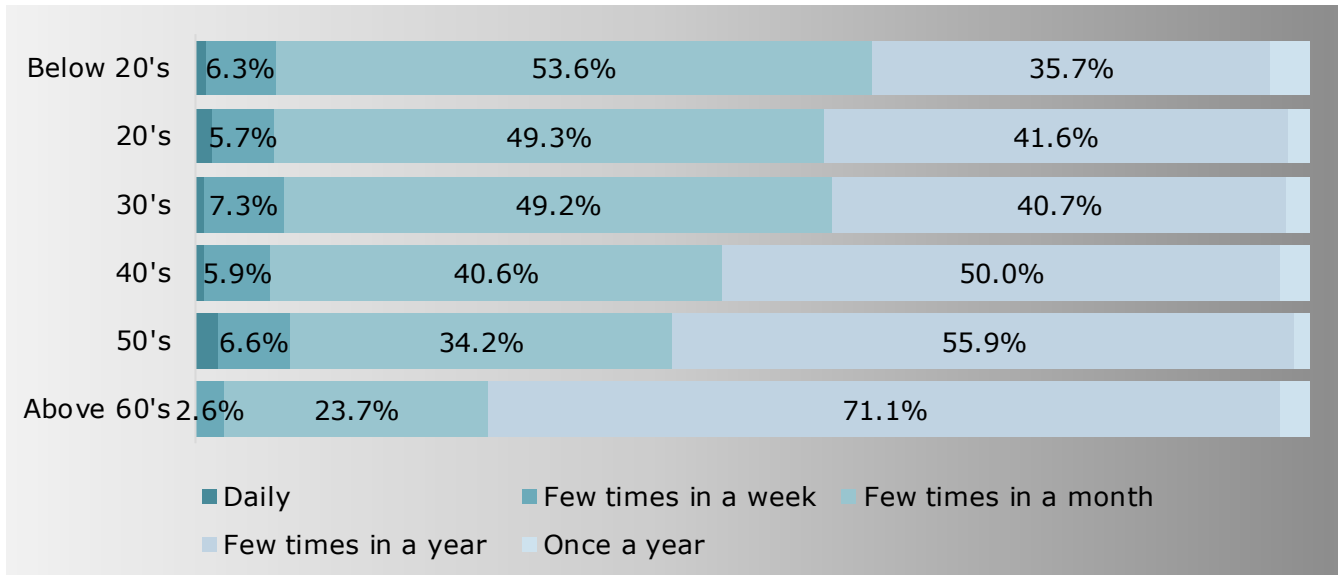
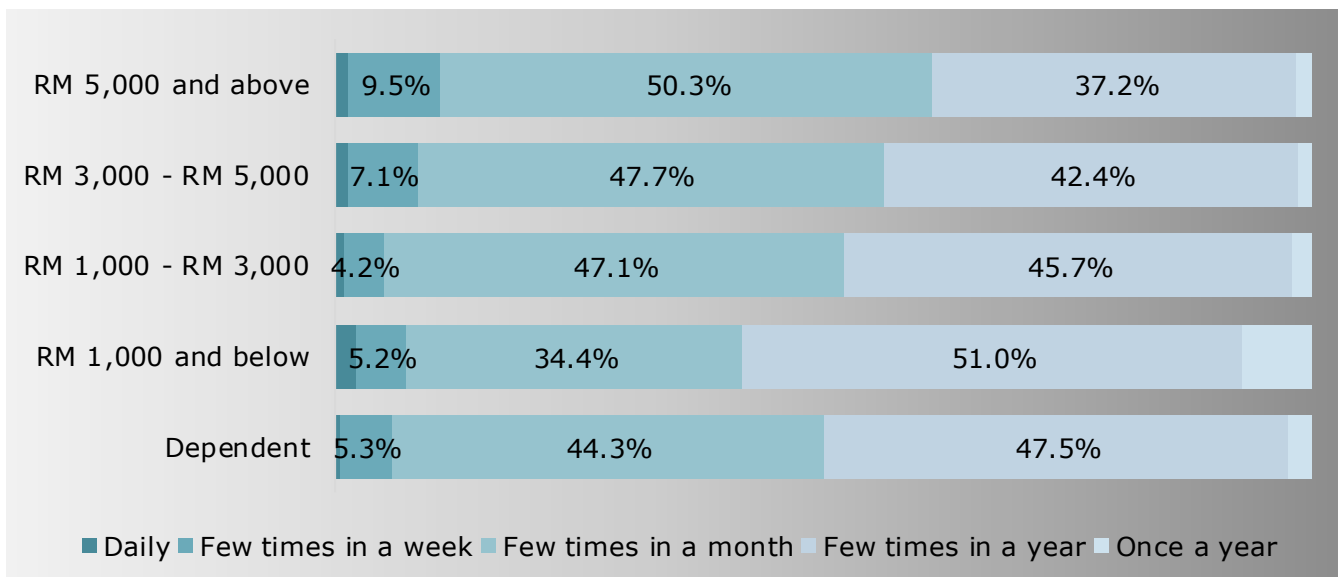


Figure 14 shows the frequency of online shopping by average monthly income.

Figure 14: Frequency of online shopping by average monthly income



Moreover, almost seven out of ten online shoppers in Malaysia (68.1%) prefer to shop online during normal days⁹ while remaining 31.9% were more likely to shop during their off days or holidays.

When asked about their usual time¹⁰ for online shopping, 44.4% revealed that they purchased their goods and services at night, while 37.0% normally shop in the afternoon. For 14.7%, their usual time were in the morning, while the remaining 3.9% prefer late night (12 a.m. till 6 a.m.) shopping.

Figure 15: Usual day to shop online

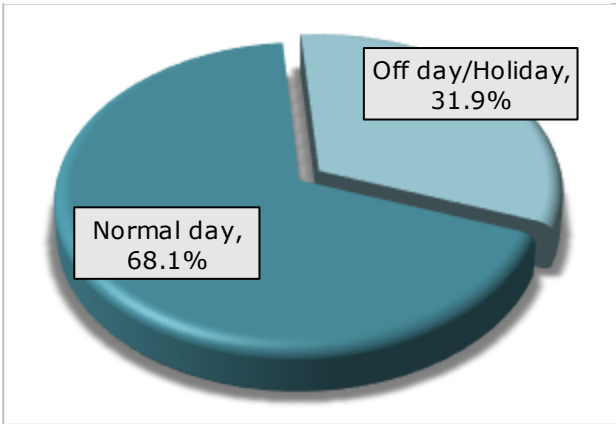
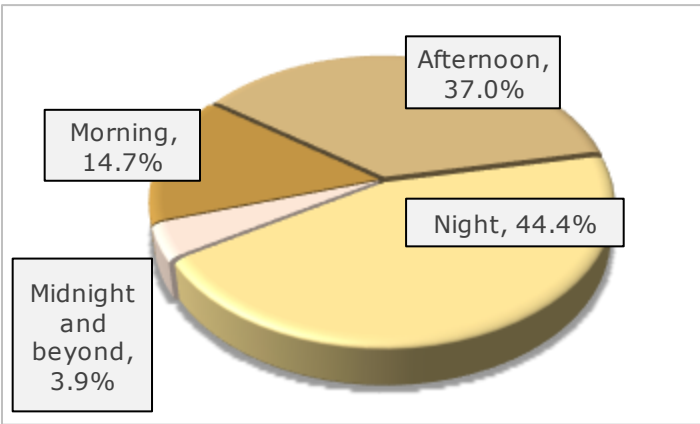


Figure 16: Usual time to shop online



ONLINE SELLER BY COUNTRY

The survey found that majority of online shoppers in Malaysia (93.6%) have purchased goods and services from local seller, while more than half (52.2%) shopped cross-border.

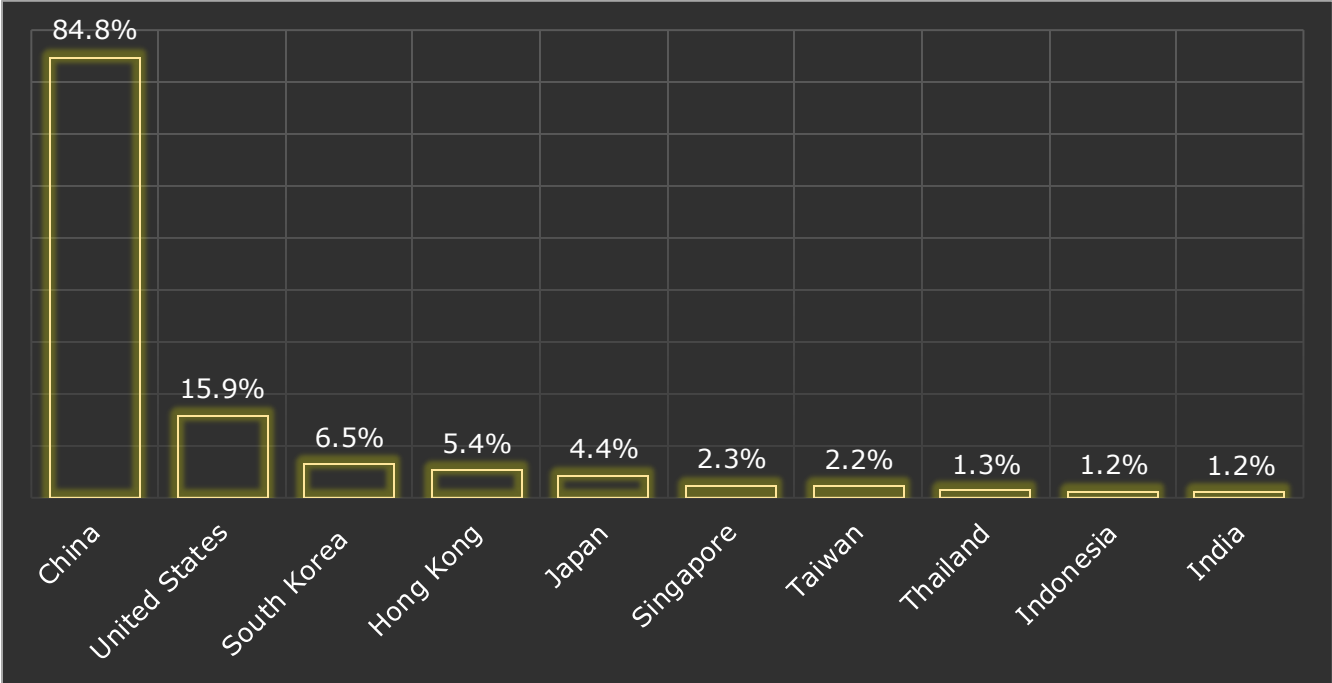
When further asked about location of cross-border e-Commerce market, 84.8% mentioned they purchased goods from China, as Chinese merchants sell massive

⁹ Including weekdays as well as respondents' working days (if working day falls on weekends).
¹⁰ For the purpose of this survey, time refers to the following: Morning (8:00am - 11:59am), Afternoon (12:00pm - 7:59pm), Night (8:00pm - 11:59pm), Midnight and beyond (12:00 am - 7:59am).

amounts of goods to international markets where people are looking for cheaper items¹¹. In addition, 15.9% shoppers also purchased goods from the USA. This is in line with report by Payvision mentioning that American and Chinese web shops are very popular amongst Singaporean and Malaysian shoppers¹². Other foreign sellers' locations were South Korea (6.5%), Hong Kong (5.4%) as well as Japan (4.4%) as shown in Figure 18.

This is in line with parcels traffic growth for inbound, whereby international service increase from 4.9 million in 2017 to 6.0 million in 2018. Meanwhile domestic service rose from 35.2 million in 2017 to 43.5 million in 2018¹³.

Figure 17: Cross-border e-Commerce market



¹¹ Chinese Consumers Are Eager to Buy Foreign Goods (June 20, 2018, Retrieved from <https://www.practicalcommerce.com/chinese-consumers-eager-buy-foreign-goods>).

¹² Cross-Border eCommerce in Asian Markets: Singapore and Malaysia (Retrieved from <https://www.payvision.com/cross-border-e-commerce-singapore-malaysia>)

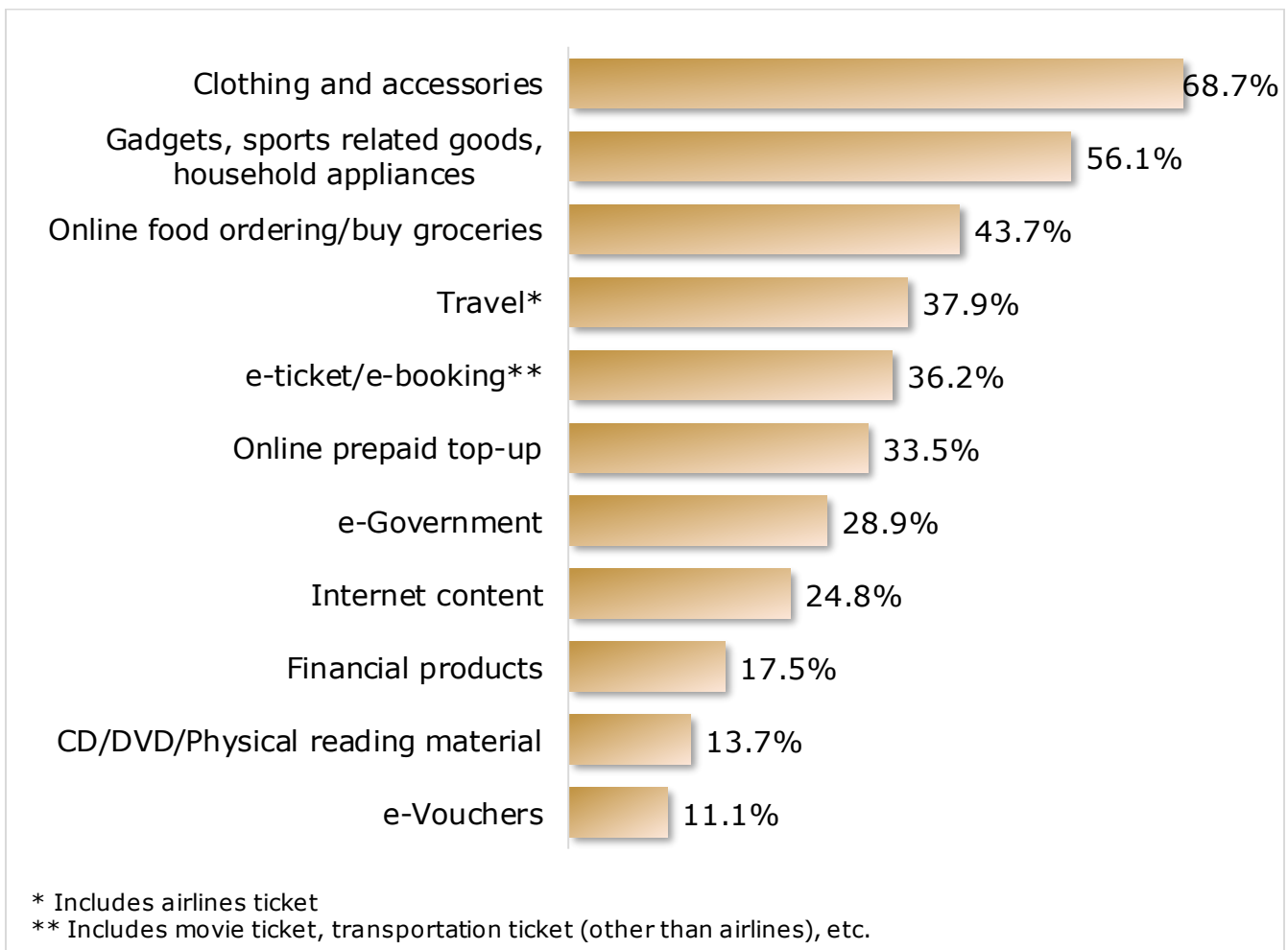
¹³ MCMC Postal and Courier 2018

WHAT ARE ONLINE SHOPPERS BUYING

Further, the survey also explored on what type of products and services purchased online and how much they spent in the last twelve months (from November 2017-November 2018). Based on Figure 18 below, result shows that clothing and accessories being the most popular products purchased by 68.7% of shoppers.

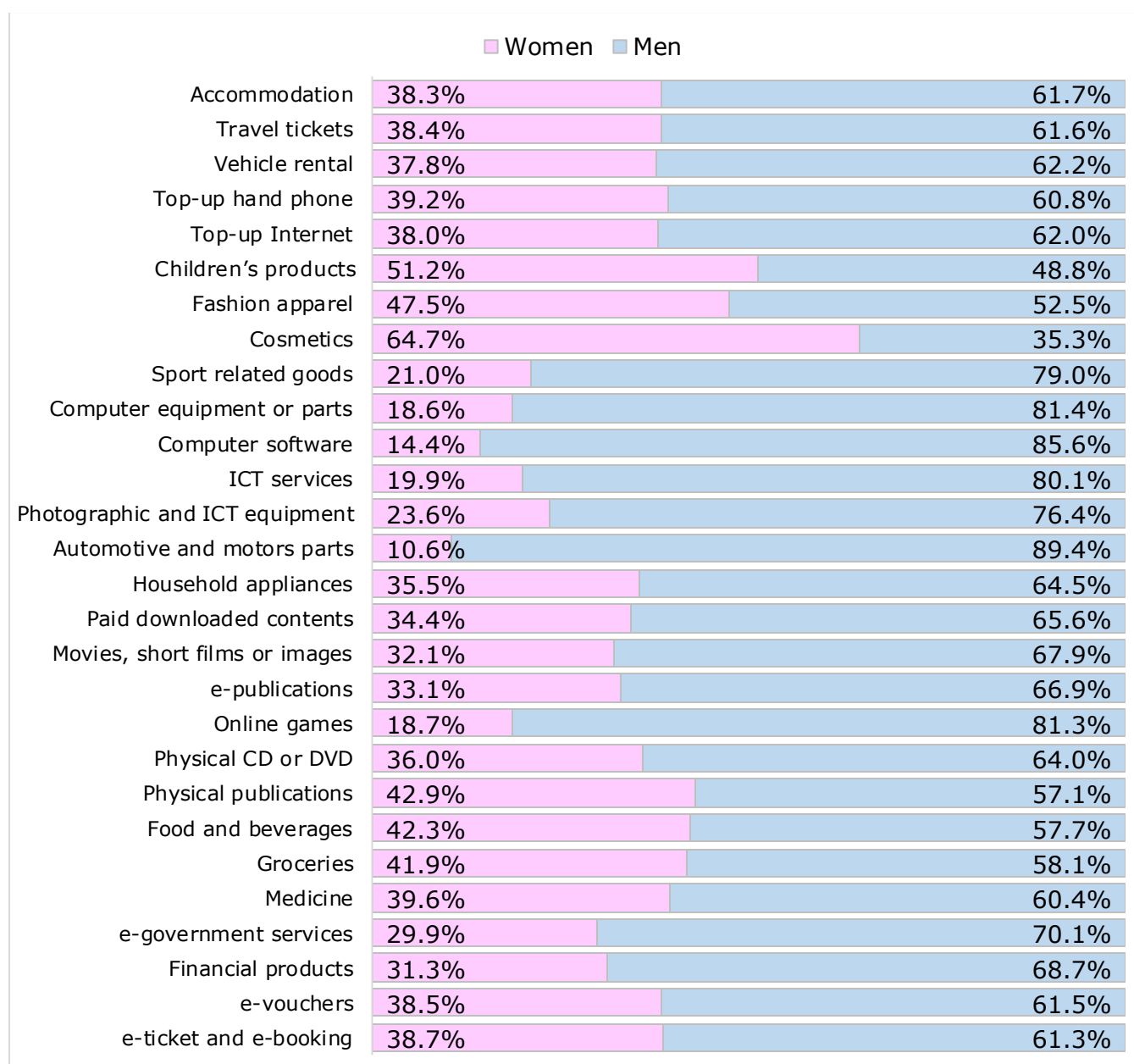
More options for delivery have made it easier for consumers to buy bulky products online such as gadgets, sports related goods and household appliances (including furniture, appliances and etc.) which were purchased by 56.1% shoppers. Groceries, medicine and online food ordering were also favoured by 43.7% shoppers.

Figure 18: Products categories purchased by online shoppers in Malaysia



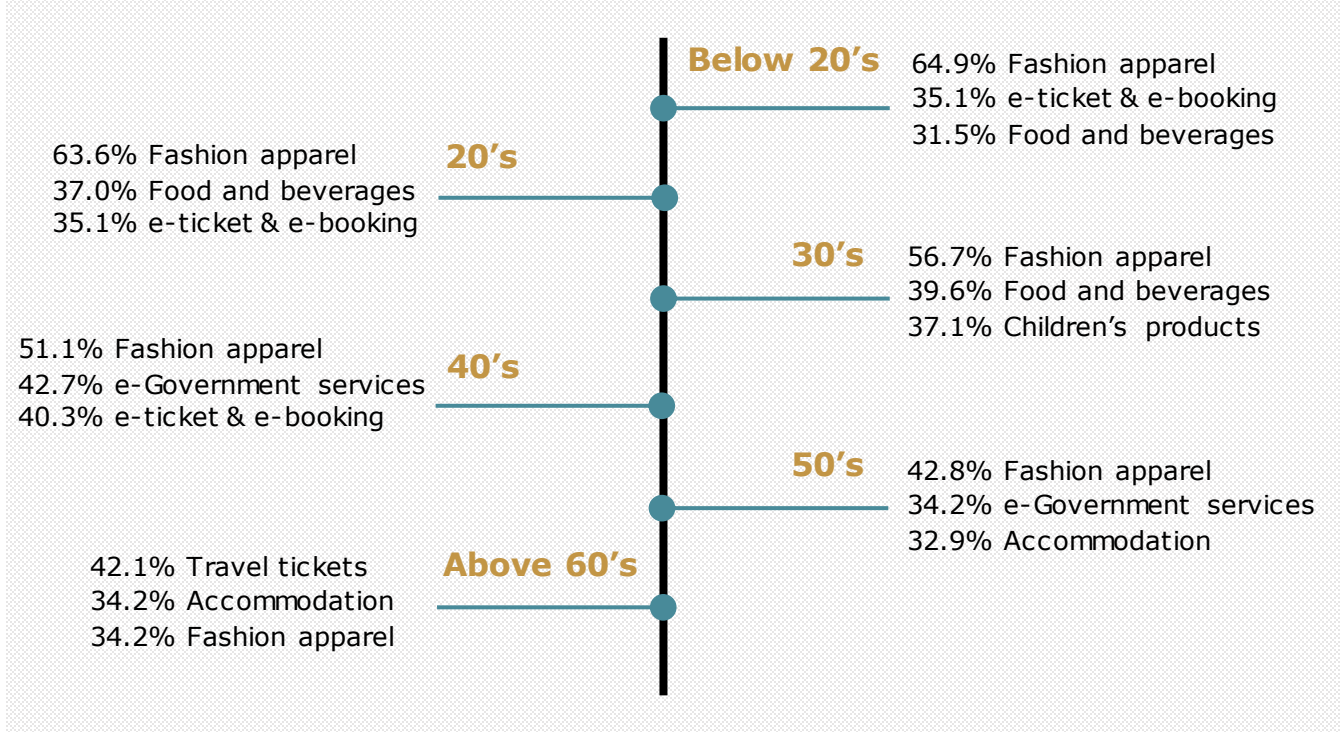
The survey also found that men tend to purchase automotive and motor parts (89.4%), computer software including paid apps (85.6%), computer equipment (81.4%) and paid online games (81.3%). Meanwhile women tend to purchase cosmetics (64.7%), children products (51.2%) as well as fashion apparel (47.5%). This is illustrated in Figure 19 below.

Figure 19 : Types of goods or services purchased by gender



Top three goods and services purchased online, we observed that online shoppers irrespective of age group tend to purchase fashion apparel online. Interestingly, those aged 60 years and above are more likely to purchase travel tickets (42.1%).

Figure 20: Top three types of goods and services purchased by age group

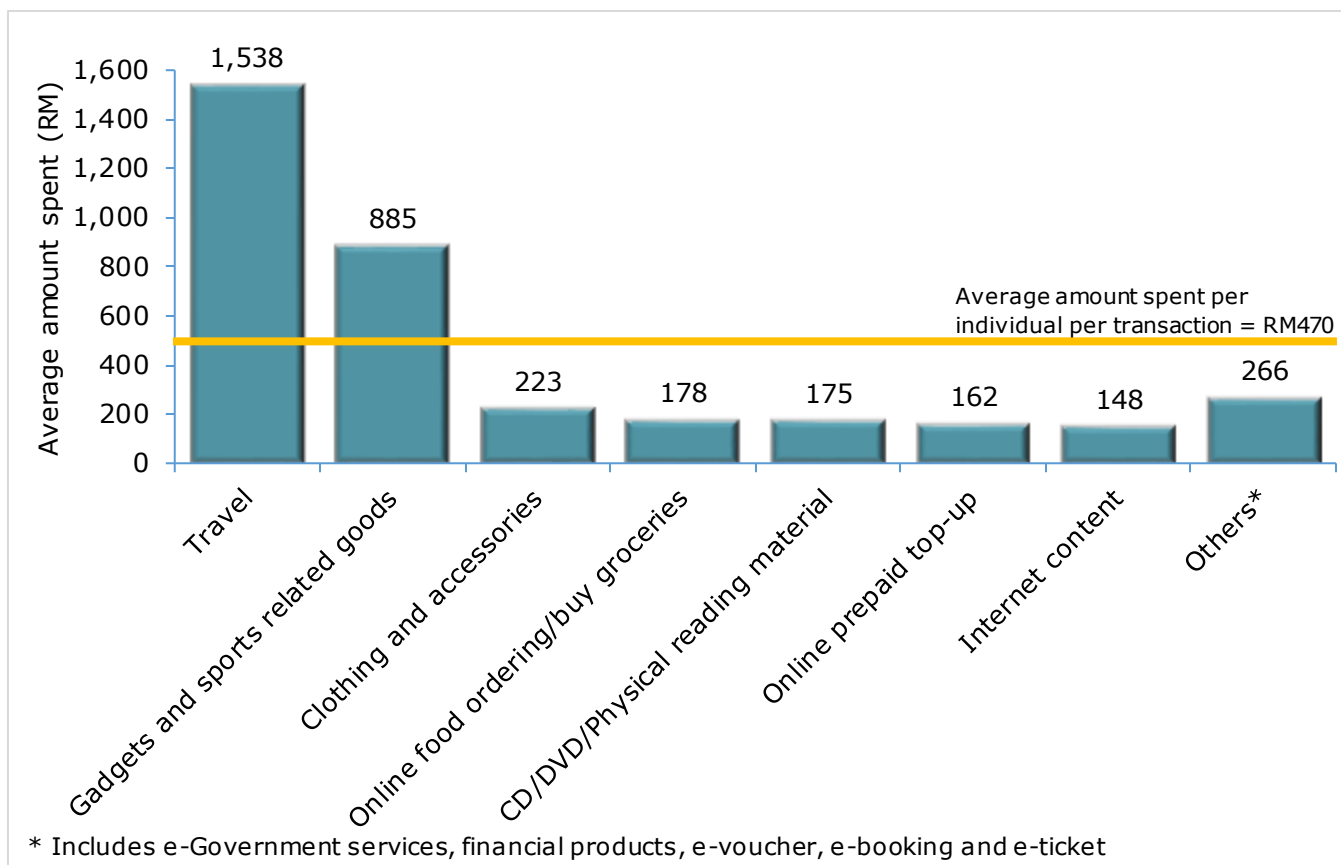


AMOUNT SPENT

On average, an online shopper spent approximately RM470 per transaction in the last twelve months. Figure 21 further illustrates average amount spent by product categories. Online shoppers spent about RM1,538 for travelling products including accommodations, travel tickets and vehicle rental. Meanwhile, shopper spent an average amount of RM885 for the purchase of gadgets and sports related goods.

In terms of average number of transactions, there is no huge disparities between men and women (19.9 versus 19.2). However, in terms of value, men spent more than women (RM690 versus RM450) in the last twelve months. This finding can be largely attributed to the type of products purchased by men or women shoppers.

Figure 21 : Average amount spent per transaction in the last twelve months by product category (RM)



PREFERRED PAYMENT OPTIONS

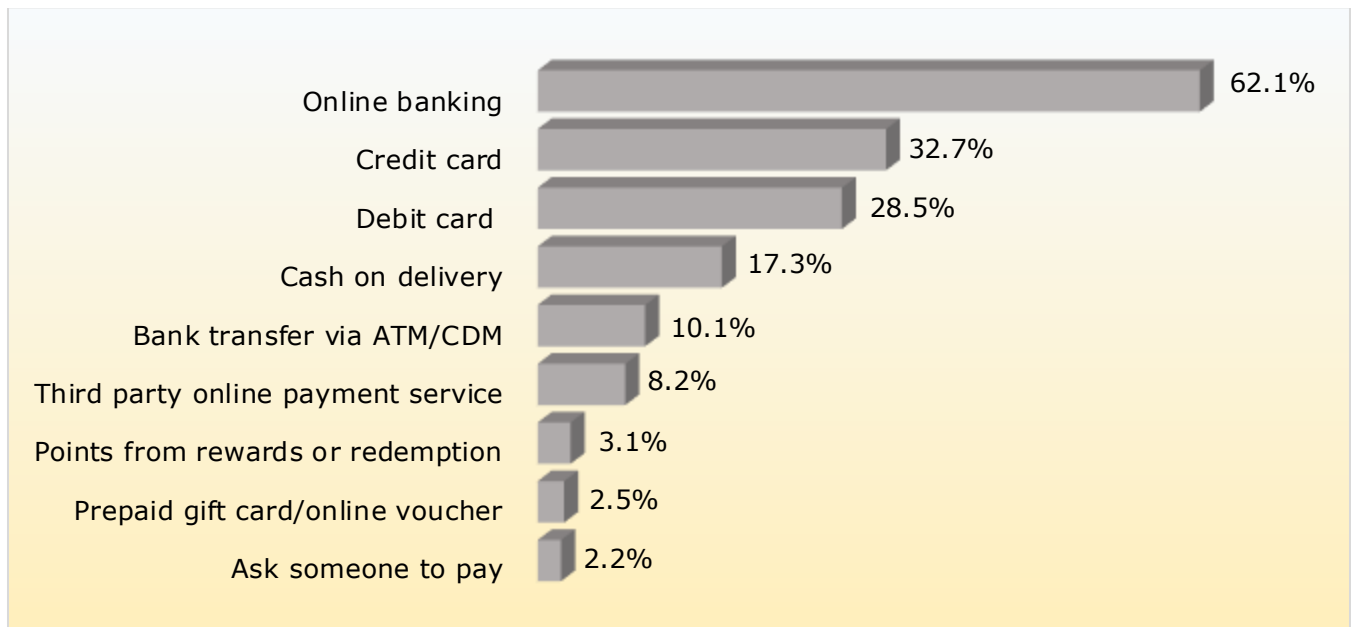
Online banking is the most preferred payment method (62.1%) followed by credit card and debit card at 32.7% and 28.5% respectively. It is observed that credit card payment method is mostly used by those above 40 (51.4%).

Cash on delivery is notable among pensioners (25.0%) and unemployed shoppers including housewives (21.4%). Meanwhile, bank transfer through Automated Teller Machine (ATM) or Cash Deposit Machine (CDM) is preferred by 10.1% online shoppers.

Apart from the above payment methods, third party online payments also attract 8.2% online shoppers in completing their purchasing. Majority (60.4%) of them

used PayPal, Alipay (16.3%), MOLPay (15.8%) and IPay88 (13.4%) in their online transaction.

Figure 22: Preferred payment options



DELIVERY

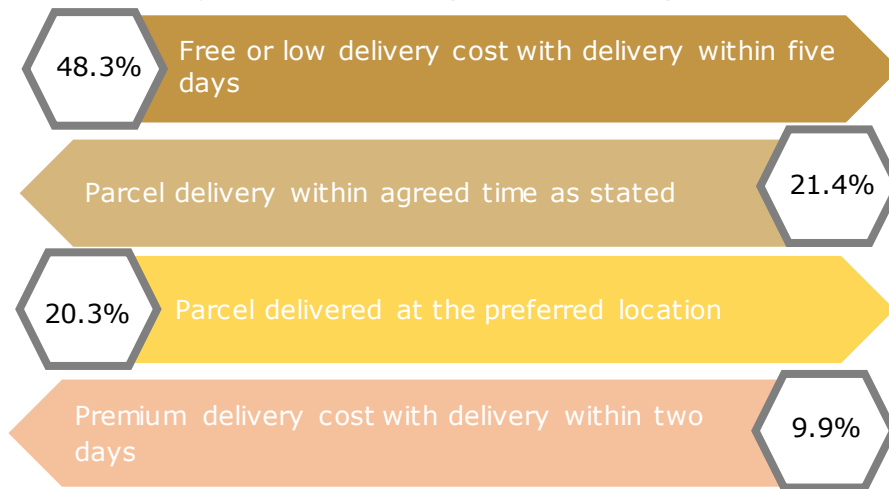
INFLUENCE OF DELIVERY OPTION

Fulfilment and delivery services are part of the e-Commerce value chain where it plays an important role to influence shoppers to shop online. Shoppers may abandon their shopping cart because their delivery options are unsatisfactory or did not meet their expectations. For example, the survey found 12.0% of shoppers decided to abandon their shopping cart due to unexpected shipping charges.

Reliable, flexible and affordable delivery options is the key delivery consideration with 48.3% of shoppers opted for free or low delivery cost with delivery within five days. Meanwhile, there are shoppers who are concern about delivery time (21.4%) and delivery location (20.3%) as assured by retailers regardless of shipping costs. In addition, 9.9% of online shoppers said that fast delivery is important to them that is two days and willing to pay a premium.

Overall, 85.3% of online shoppers claimed that they received their purchased goods on time.

Figure 23: Most important delivery factor



MOST PREFERRED DELIVERY LOCATION

Almost six out of ten online shoppers (57.2%) cited that they prefer to receive parcel at their own home. The remaining 42.8% choose other than home delivery due to unavailability of people at home (68.0%) and convenience to collect parcel at their own time and location (51.3%).

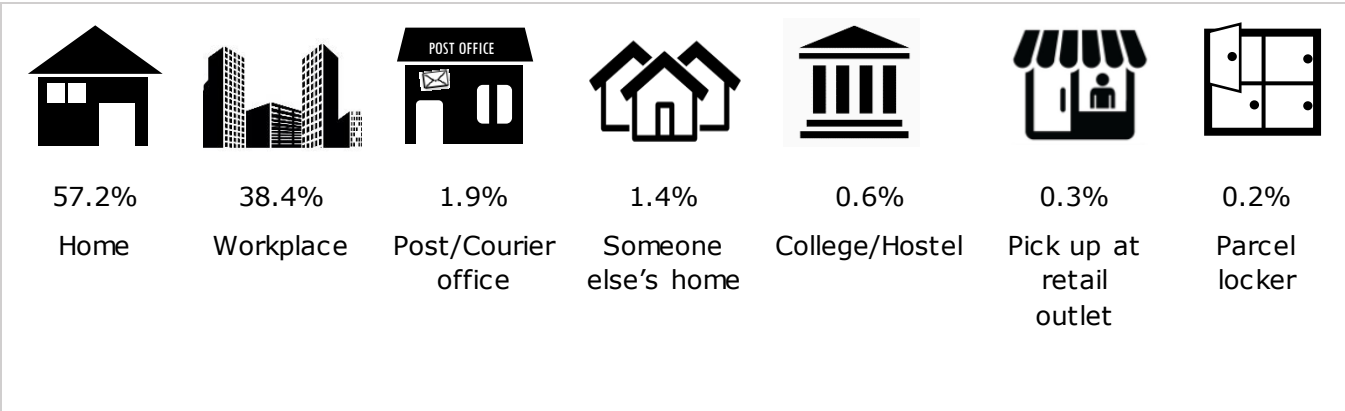
Almost four out of ten (38.4%) prefer workplace delivery while a very small group of online shoppers would like to collect their parcels at post office or courier collection centre as well as delivery to someone else's home.

Parcel locker delivery is one of the latest concept introduced by courier operators to provide convenience and flexibility for online shoppers to collect their parcels. However, it receives lukewarm reception among shoppers as only 0.2% of them claimed to use this platform. This might be due to availability of this platform nationwide and most of them are concentrated within Klang Valley¹⁴. Currently there

¹⁴ Parcel365 location retrieve from <http://parcel365.com.my/>. PopBox location retrieve from https://www.popbox.asia/#nearest_locker

are limited number of parcel locker providers in the market such as Pos Malaysia Berhad, Parcel365, PostCo and PopBox.

Figure 24: Most preferred delivery location

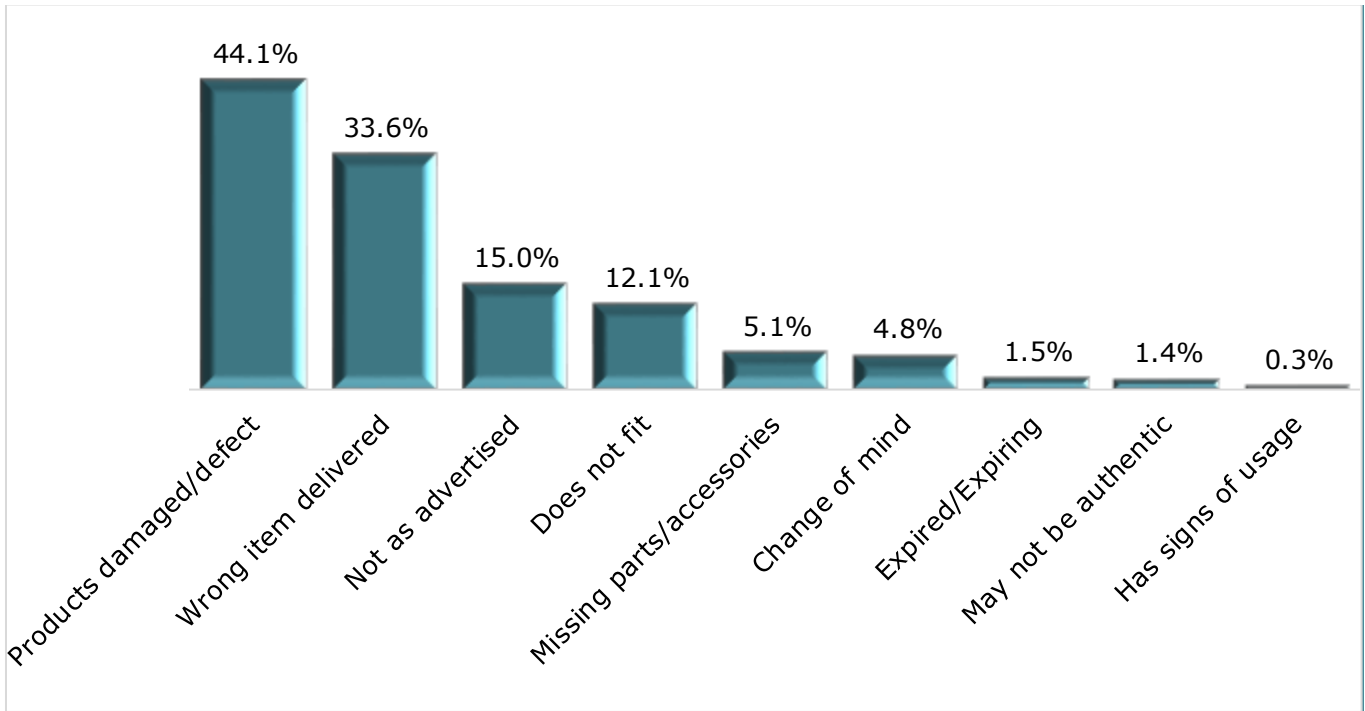


PRODUCT RETURN POLICY

The convenience of online shopping is not just limited to big discounts, reliable delivery and ease of payment. Another major attraction for shoppers to shop online is the ability to return a purchase if shoppers are dissatisfied with any aspect of the product. When asked about their experience in returning their purchased products, 23.8% claimed to have experience in returning the products. Of this, 54.2% return their products to get a full refund while 52.5% requested for a replacement.

Shoppers return products for many reasons. Result revealed that product failure is undoubtedly one of the most common reasons, with 44.1% online shoppers said that the products are damaged or defect upon receipt. Another reason cited is receiving wrong item (33.6%).

Figure 25: Reasons for returning products



When asked about issues encountered when returning the purchased products, nearly six out of ten (58.3%) mentioned that they had faced various issues throughout the process. Longer time of receiving refund or product replacement appears to be on top of the list (54.1%) while requirement to pay the return delivery cost was cited by 48.8% of shoppers.

Figure 26: Issues encountered when returning purchased products



LEVEL OF ONLINE SHOPPING SATISFACTION

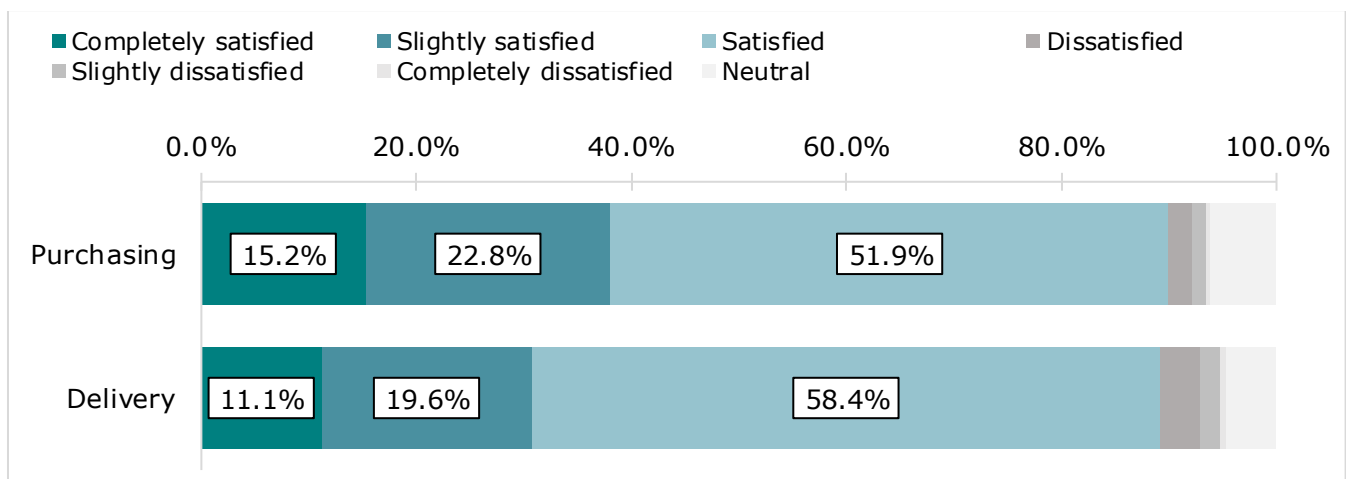
PURCHASING VERSUS DELIVERY

This section examines overall satisfaction of shopping experience in terms of purchasing and product delivery in the last twelve months. The survey reveals that shoppers are generally satisfied in both purchasing and product delivery experiences.

For purchasing, 89.9% of online shoppers claimed that they are satisfied with their online purchasing experience. More than half (51.9%) shoppers rated their experience as satisfied meanwhile 22.8% rated as slightly satisfied and 15.2% as completely satisfied. Only 3.9% of them claimed that they are not satisfied with their online purchasing experience.

For product delivery experience, about nine out of ten (89.1%) online shoppers claimed that they are satisfied with the service. More than half (58.4%) shoppers rated their experience as satisfied while 19.6% rated as slightly satisfied and 11.1% as completely satisfied. Only 6.2% of them claimed they are not satisfied with their product delivery experience.

Figure 27: Online shoppers' satisfaction on purchasing and delivery service



SECURITY AND PRIVACY

SECURITY AND PRIVACY CONCERNS REGARDING E-COMMERCE

Despite convenience and benefits of online shopping, e-Commerce poses some challenges and concerns among shoppers on security and privacy issues. Thus, this section intends to identify level of concern with regard to these two issues. In general, slightly more than half of online shoppers claimed that they are concern on security and privacy while shopping online.

Figure 28: Online shoppers' level of concerned on security and areas of concerned

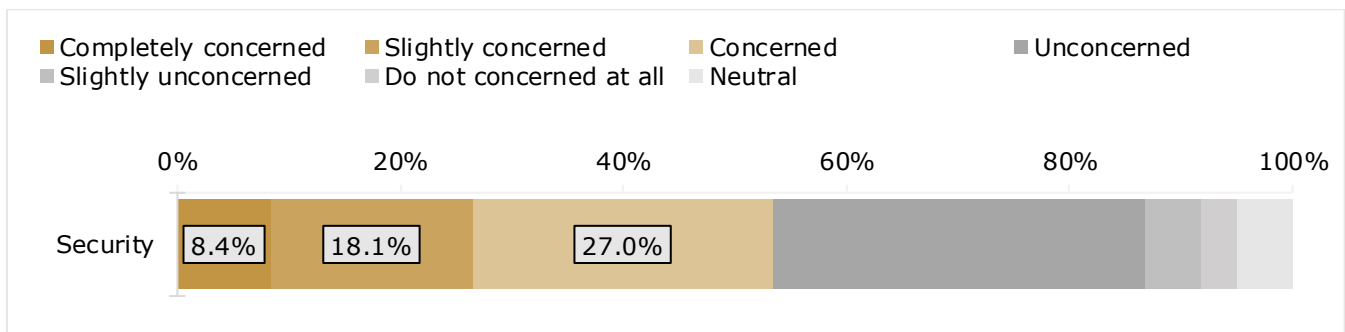
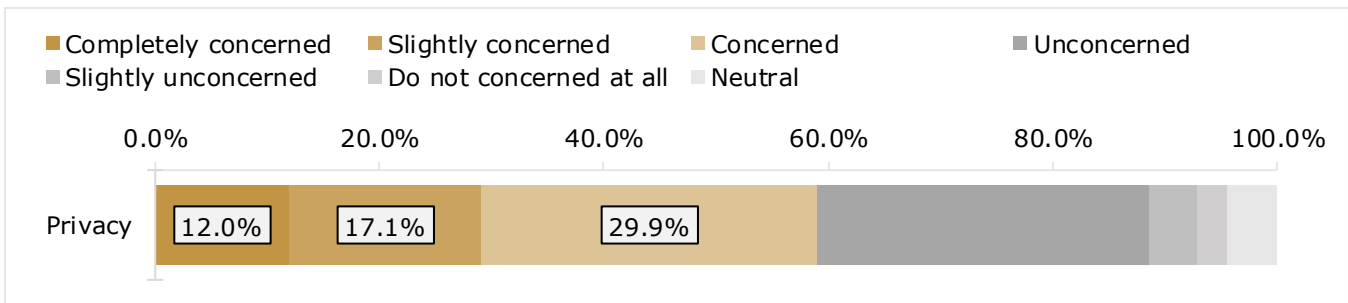


Figure 29: Online shoppers' level of concerned on privacy

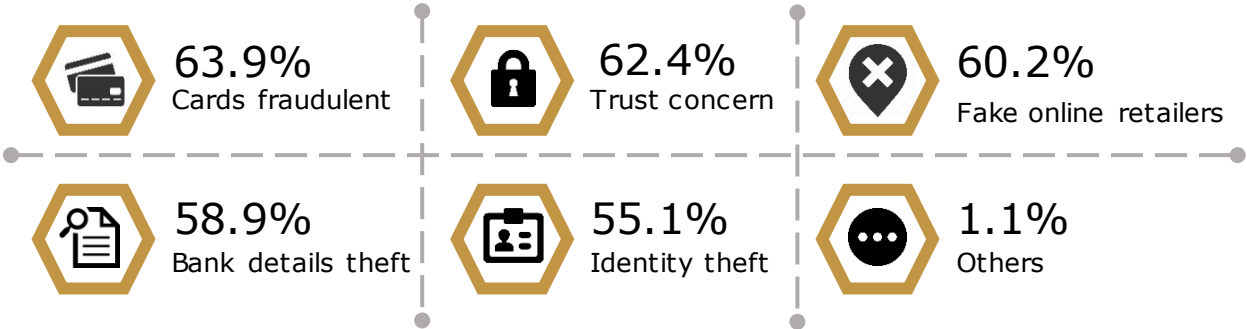


Concerns regarding security have emerged from a vast range of potential threats such as cards fraudulent, trust concern, fake online retailers, bank details theft, identity theft, etc.

Among these threats, fraudulent activities including credit card and debit card fraud appears to be the highest concerns as mentioned by 63.9% of online shoppers.

Retailer’s store reputation, trusted payment gateway and guaranteed delivery time are the main areas of trust concern cited by 62.4% shoppers. This is followed by fake online retailers (60.2%), bank details theft (58.9%) and identity theft (55.1%).

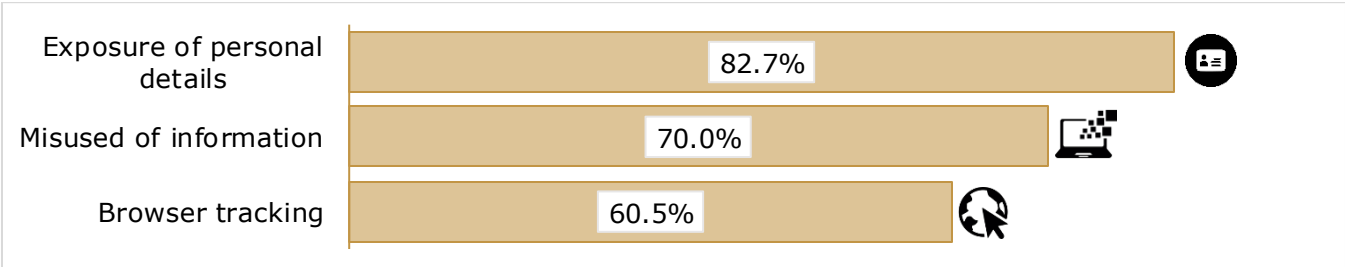
Figure 30: Areas of concerned on security



Apart from security, shoppers are also concerned on privacy involving their personal data.

Majority of shoppers (82.7%) indicate that they are very concern about the exposure of their personal details as well as misused of information for marketing purposes (70.0%). Another area of concern is browser tracking with 60.5% of them raised this issue during the survey. These reflect that shoppers are very cautious about the treatment of their personal data. Thus ensuring their information to be kept confidential is vital to build their confidence and trust in online shopping.

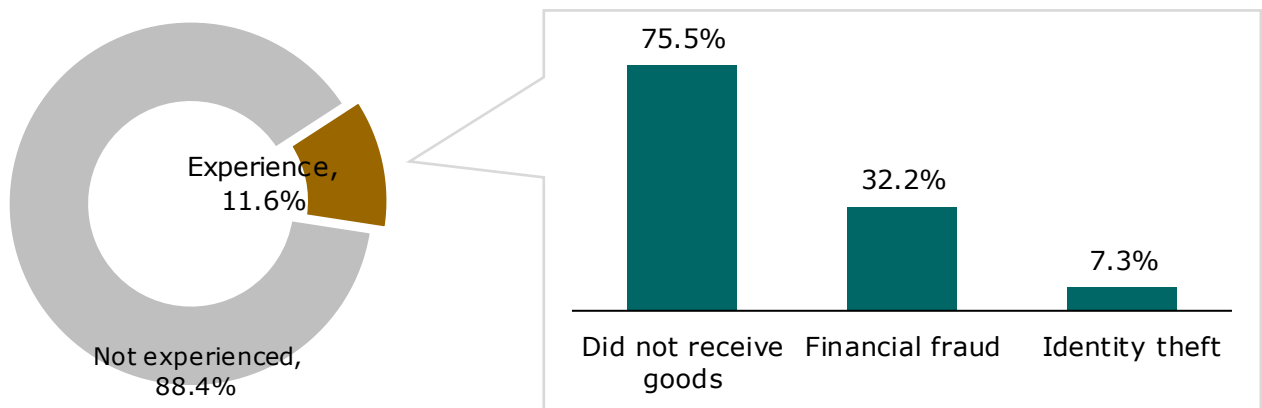
Figure 31: Areas of concerned on privacy



EXPERIENCE ON FRAUDULENT ACTIVITIES

The survey further identified experience on fraudulent activities by online shoppers, whereby 11.6% of them have experienced it. Shoppers did not receive purchase goods is the most common incident encountered (75.5%). This might be due to many reasons such as, purchasing goods from fake retailers or orders were cancelled without refund being made. This is followed by financial fraud (32.2%) such as credit and debit cards fraud. Meanwhile, 7.3% claimed that they have experienced an identity theft throughout their online shopping experiences.

Figure 32: Experiences on fraudulent activities



SECTION 5: RESPONDENT'S DEMOGRAPHIC

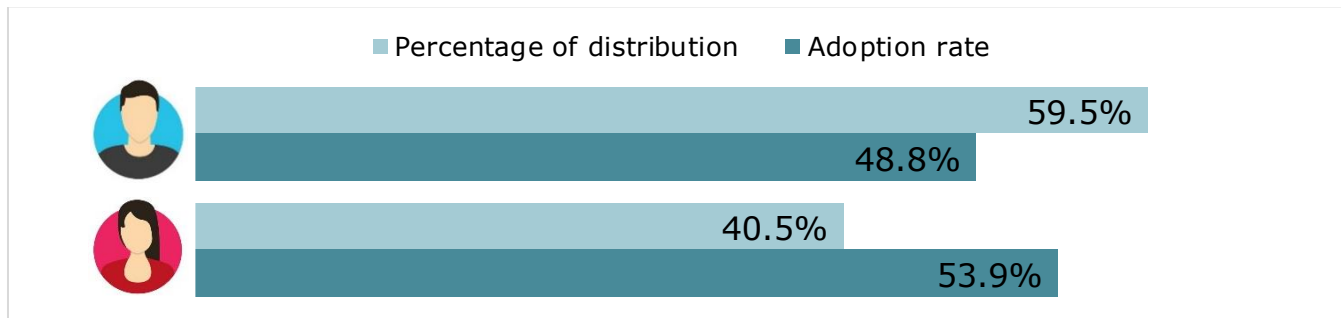
This section provides an overview of the demographic and socio economic profile of e-Commerce consumers. There are five (5) demographic variables discussed in this section, namely; gender, age at the time of the survey, urban-rural distribution, employment and educational attainment.

GENDER

At 59.5%, men outnumbered women (40.5%) in the distribution of e-Commerce consumers. According to DOSM, the sex ratio of Malaysian population stood at 1.1:1 while the survey determined that sex ratio of e-Commerce consumers is 1.5:1.

In terms of adoption rate, it was found that women are more likely to conduct e-Commerce activities compared to men (53.9% versus 48.8%).

Figure 33: Percentage distribution of e-Commerce consumers and adoption rate by gender

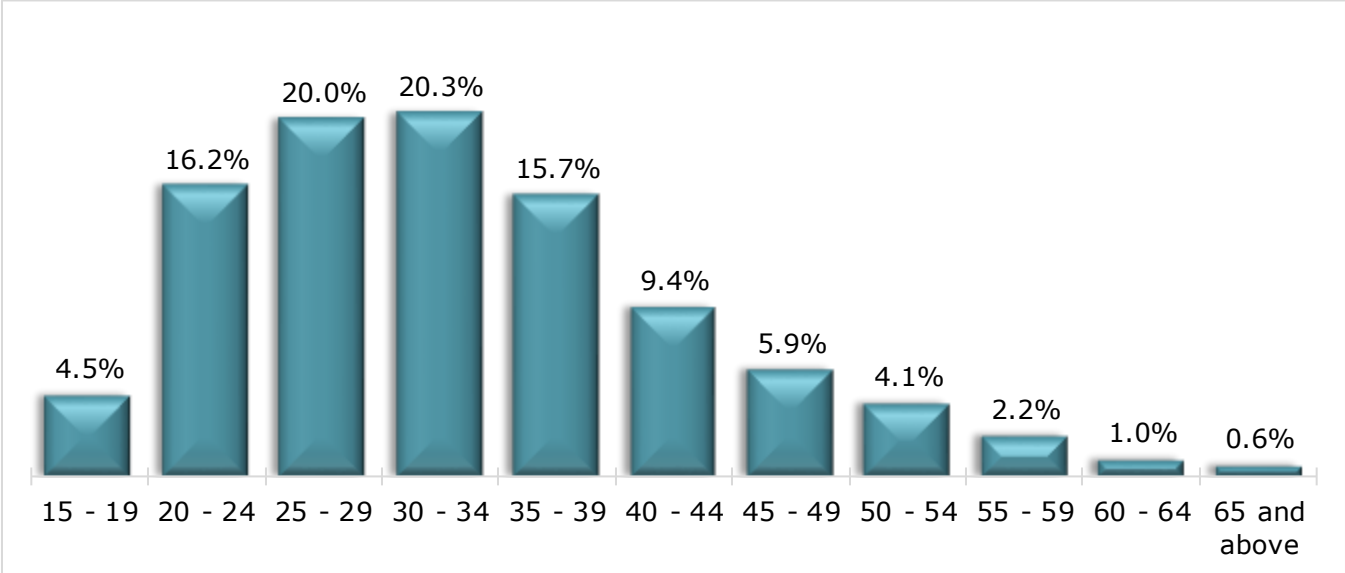


AGE

The mean age of e-Commerce consumers in Malaysia stood at 33.7 years old. According to the survey, it reflects the demographic profile of young adults from the age group of 20 – 34 years old of which they accounted for 56.5% of the respondents. The second largest group was adults from the age group of 35 – 49 years old with 31.1%. Results show that individuals of working age (15 – 64 years

old) as defined by DOSM are the vast majority of e-Commerce consumers in Malaysia, as they have a stable income level that plays a role in their decision making.

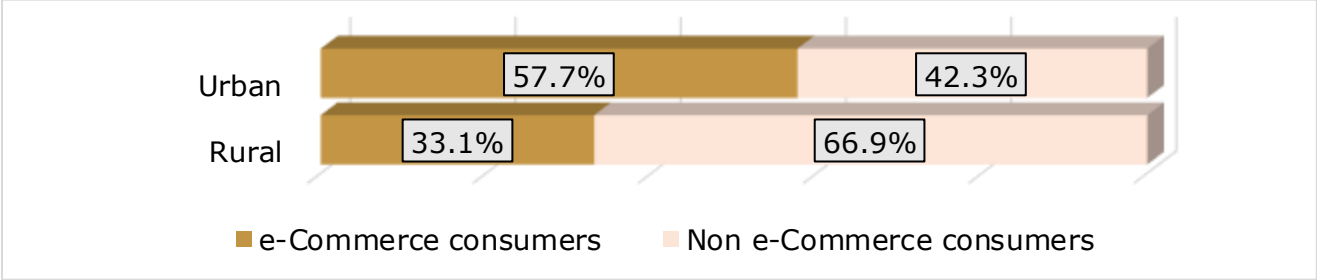
Figure 34: Percentage distribution of e-Commerce consumers by age group



URBAN-RURAL

Adoption rate of e-Commerce consumers is higher in an urban area with 57.7% are e-Commerce consumers, while consumers in rural area only accounted for 33.1% (Figure 35).

Figure 35: Adoption rate of e-Commerce consumers by urban-rural

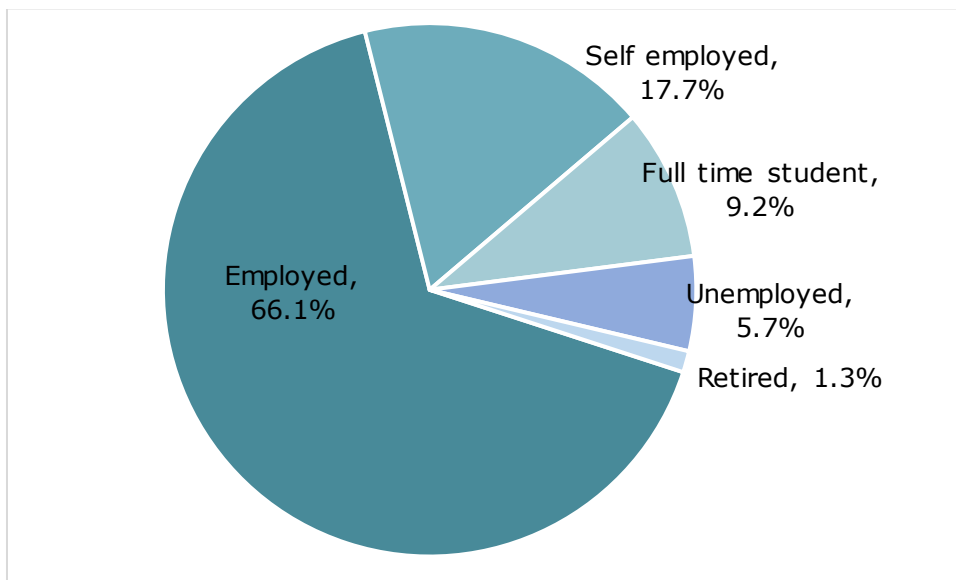


EMPLOYMENT AND CURRENT EDUCATIONAL STATUS

About eight out of ten e-Commerce consumers (83.8%) are employed, including self-employed.

This is followed by full-time students at 9.2%. Of this, 82.8% currently enrolled in university or college while 17.2% in secondary school. Additionally, e-Commerce consumers in Malaysia also comprise of 5.7% unemployed consumers, including housewife as well as 1.3% of retirees.

Figure 36: Percentage distribution on e-Commerce consumers by employment status



SECTION 6: CONCLUSION

Malaysia has made great developments in connecting people to the digital world, especially through mobile platform. In 2018, mobile broadband penetration per 100 inhabitants in Malaysia reached 113.0% and the Internet users stood at 87.4%¹⁵. Nonetheless, this survey shows adoption of e-Commerce was at 51.2% of total population. Comparing with other countries in the region, Malaysia is number two after Singapore in terms of e-Commerce consumers¹⁶.

The proliferation of smartphones, combining with seamless forms of online payments, reliable and affordable delivery options as well as influence of social-media networks are among key factors that is driving e-Commerce growth. Overall, 89.9% of online shoppers claimed that they are satisfied with their online purchasing experience.

Growing up in the advent of Internet, young generation below 30's is identified as the major adopter and engine of growth for e-Commerce.

Managing consumer trust and privacy in every part of e-Commerce value chain is very important for sustainability. Apart from strengthening cybersecurity and risk policies to manage security and privacy risks perception, smart delivery options and customer-centric return policies will also instil their confidence.

Finally, ECS is not just a tool in measuring behavioural shift of e-Commerce consumers and evolving trends of online shopping experience, it also provides a higher level of granularity of data in measuring key dimensions of digital economy

¹⁵ Source: MCMC

¹⁶ Source: Statista, "Digital Market Outlook: eCommerce," selected countries, 2018.

in Malaysia. Therefore, undertaking annual ECS is important to ensure richer set of data from demand-side perspective that can facilitate policy making in this area.

SECTION 7: TABLES

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

While the MCMC takes every care 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 a sample and not the entire population is canvassed. 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		
	Percentage	RSE
Users	51.2	2.0
Non-users	48.8	2.1

Percentage of e-Commerce consumers by state		
	Percentage	RSE
Johor	26.5	11.8
Kedah	25.0	12.2
Kelantan	22.0	13.3
Melaka	32.5	10.2
Negeri Sembilan	27.5	11.5
Pahang	24.0	12.6
Perak	22.0	13.3
Perlis	49.4	7.5
Pulau Pinang	32.5	10.2
Sabah	22.5	13.1
Sarawak	24.0	12.6
Selangor	40.0	8.7
Terengganu	35.5	9.5
W.P. Kuala Lumpur	38.0	9.0
W.P. Labuan	60.5	5.7
W.P. Putrajaya	70.5	4.6

Knowledge on e-Commerce		
	Percentage	RSE
Yes	75.8	1.2
No	24.2	3.7

Visited e-Commerce website		
	Percentage	RSE
Yes	65.7	1.5
No	34.3	2.9

Reasons for not conducting e-Commerce activities		
	Percentage	RSE
<i>*multiple answers</i>		
Prefer to go to physical store	49.1	2.1
Lack of knowledge, confidence or skills	43.0	2.3
Not interested	34.3	2.8
Privacy and security concern	24.4	3.6
Delivery concern	15.7	4.7
Trust concerns	14.7	4.9
Unstable internet connectivity	5.7	8.3
Bad experience with online shop	4.0	10.1
Website navigation is complicated	3.9	10.2
Don't have address for postage	1.3	17.6

Motivating factor to shop online		
<i>*multiple answers</i>	Percentage	RSE
Convenience	84.4	0.9
Better prices offered	73.0	1.2
Ease of payments	55.2	1.8
Variety of products	54.8	1.8
Customer review/rating	52.6	1.9
Shipping (Free/delivery options)	49.4	2.0
Clear return policy	35.8	2.7
Others	2.4	13.0

Conduct product research		
	Percentage	RSE
Yes	87.2	0.8
No	12.8	5.3

Platform used for product research		
<i>*multiple answers</i>	Percentage	RSE
Search engine	70.5	1.4
Retailer's website	64.2	1.6
Social media	44.1	2.4

Social media aspects influenced online shopping behaviour		
<i>*multiple answers</i>	Percentage	RSE
Reviews, comments and feedback	82.5	1.5
Promotional offerings	57.5	2.8
Advertisement	44.6	3.6
Current trends (eg: Fashion, etc.)	31.4	4.8

Device use to shop online		
<i>*multiple answers</i>	Percentage	RSE
Smartphone	78.3	1.1
Netbook/Notebook/ Laptop	29.7	3.1
PC/Desktop	27.1	3.3
Tablet	6.2	7.9
Smart TV	1.1	19.5

Challenges while shopping via mobile devices		
<i>*multiple answers</i>	Percentage	RSE
Need to enlarge image on the screen	71.9	2.2
Limited product information	37.9	4.5
Need to use desktop version	32.2	5.0
Website is not user friendly	29.6	5.4
Website is not compatible with mobile version	29.3	5.4

Frequency of online shopping		
	Percentage	RSE
Daily	1.1	19.5
Few times in a week	6.3	7.8
Few times in a month	46.8	2.2
Few times in a year	43.7	2.3
Once a year	2.2	13.3

Usual day to shop online		
	Percentage	RSE
Normal day	68.1	1.4
Off day/Holiday	31.9	2.9

Usual time to shop online		
	Percentage	RSE
Morning (8:00am - 11:59am)	14.7	4.9
Afternoon (12:00pm - 7:59pm)	37.0	2.6
Night (8:00pm - 11:59pm)	44.4	2.3
Midnight and beyond (12:00 am - 7:59am)	3.9	10.0

Number of transaction in the last twelve months		
	Percentage	RSE
Less than 10	43.1	2.3
10 - 20	26.9	3.3
20 - 30	11.9	5.5
30 - 40	4.3	9.6
40 - 50	2.8	11.9
More than 50	10.9	5.8

Location of seller		
	Percentage	RSE
<i>*multiple answers</i>		
Local	93.6	0.5
Foreign	52.2	1.9

Foreign seller		
	Percentage	RSE
<i>*multiple answers</i>		
China	84.8	1.2
United States	15.9	6.4
South Korea	6.5	10.6
Hong Kong	5.4	11.7
Japan	4.4	13.1
Singapore	2.3	18.0
Taiwan	2.2	18.7
Thailand	1.3	24.1
Indonesia	1.2	24.8
India	1.2*	25.7

Product categories		
<i>*multiple answers</i>	Percentage	RSE
Travel	37.9	2.6
Online prepaid top-up	33.5	2.8
Clothing and accessories	68.7	1.4
Gadgets and sports related goods	56.1	1.8
Internet content	24.8	3.5
CD/DVD/Physical reading material	13.7	5.1
Online food ordering/buy groceries	43.7	2.3
e-Government	28.9	3.2
Financial products	17.5	4.4
e-Vouchers	11.1	5.7
e-ticket/e-booking	36.2	2.7

Payment method		
<i>*multiple answers</i>	Percentage	RSE
Online banking	62.1	1.6
Credit card	32.7	2.9
Debit card	28.5	3.2
Cash on delivery	17.3	4.4
Bank transfer via ATM/CDM	10.1	6.0
Third party online payment service	8.2	6.7
Points from rewards or redemption	3.1	11.3
Prepaid gift card/online voucher	2.5	12.6
Ask someone to pay	2.2	13.5

Third party online payment service		
<i>*multiple answers</i>	Percentage	RSE
PayPal	60.4	5.7
Alipay	16.3	15.9
IPay88	13.4	17.9
MOLPay	15.8	16.2
e-GHL	4.0*	34.6

Satisfaction on purchasing experience		
	Percentage	RSE
Completely satisfied	15.2	4.8
Slightly satisfied	22.8	3.7
Satisfied	51.9	1.9
Dissatisfied	6.2	7.9
Slightly dissatisfied	2.2	13.3
Completely dissatisfied	1.3	17.6
Neutral	0.3*	35.3

Delivery location		
<i>*multiple answers</i>	Percentage	RSE
Home	57.2	1.8
Workplace	38.4	2.6
Post/Courier office	1.9	14.4
Someone else's home	1.4	17.0
College hostel	0.6*	26.6
Pick up at retail outlet	0.3*	37.7
Parcel locker	0.2*	44.7

Most important delivery factor		
	Percentage	RSE
Free/Low delivery cost with 3-5 days delivery	48.3	2.1
Receive goods/services within the stipulated time	21.4	3.9
Goods deliver at the preferred location	20.3	4.0
Premium delivery cost with 24 hours-2 days delivery	9.9	6.1

Receiving purchased goods on time		
	Percentage	RSE
Yes	85.3	0.9
No	14.7	5.0

Experience in returning products		
	Percentage	RSE
Yes	23.8	3.6
No	76.2	1.1

Reasons for returning products		
<i>*multiple answers</i>	Percentage	RSE
Products damaged/defect	44.1	4.6
Wrong item delivered	33.6	5.8
Not as advertised	15.0	9.8
Does not fit	12.1	11.1
Missing parts/accessories	5.1	17.8
Change of mind	4.8	18.4
Expired/Expiring	1.5*	33.1
May not be authentic	1.4*	35.1
Has signs of usage	0.3**	70.6

Challenges faced during the return process		
<i>*multiple answers</i>	Percentage	RSE
Took too long to receive credit/refund/exchange goods	54.1	5.0
Need to pay the return shipping cost	48.8	5.5
Could not reach customer service for assistance	16.4	12.2
Return policy was hard to understand	14.9	12.9
Need to fill up a long form	12.6	14.3
No return policy supported by foreign retailers	9.4	16.8
Need to post on your own	2.6*	32.9
Bad communication with retailer	1.5*	44.4

Satisfaction on delivery service		
	Percentage	RSE
Completely satisfied	11.1	5.7
Slightly satisfied	19.6	4.1
Satisfied	58.4	1.7
Dissatisfied	3.7	10.2
Slightly dissatisfied	1.8	14.9
Completely dissatisfied	0.6	24.9
Neutral	4.7	9.1

Level of concern on security issues		
	Percentage	RSE
Completely concerned	8.4	6.7
Slightly concerned	18.1	4.3
Concerned	27.0	3.3
Unconcerned	33.3	2.9
Slightly unconcerned	5.1	8.7
Do not concerned at all	3.1	11.2
Neutral	5.0	8.8

Areas of concern on security		
<i>*multiple answers</i>	Percentage	RSE
Credit card/debit card/bank fraud	63.9	2.1
Trust concern	62.4	2.1
Fake online shop	60.2	2.2
Bank details theft	58.9	2.3
Identity theft	55.1	2.5
Others	1.1*	25.7

Level of concern on privacy issues		
	Percentage	RSE
Completely concerned	12.0	5.5
Slightly concerned	17.1	4.4
Concerned	29.9	3.1
Unconcerned	29.6	3.1
Slightly unconcerned	4.2	9.6
Do not concerned at all	2.6	12.2
Neutral	4.5	9.3

Areas of concern on privacy		
<i>*multiple answers</i>	Percentage	RSE
Exposure of personal details	82.7	1.2
Misused of information	70.0	1.7
Browser tracking	60.5	2.1

Experiences on fraudulent activities		
	Percentage	RSE
Yes	11.6	5.6
No	88.4	0.7

Type of fraud		
<i>*multiple answers</i>	Percentage	RSE
Did not received goods	75.5	3.4
Financial fraud	32.2	8.6
Identity theft	7.3	21.0

Gender distribution of e-Commerce consumers		
	Percentage	RSE
Male	40.5	2.4
Female	59.5	1.7

Employment distribution of e-Commerce consumers		
	Percentage	RSE
Employed	66.1	1.4
Self employed	17.7	4.3
A full time student (Including practical training)	9.2	6.3
Unemployed (Including housewife)	5.7	8.1
Pensioner	1.3	17.6

Age distribution of e-Commerce consumers		
	Percentage	RSE
Below 15	0.0**	100.0
15 - 19	4.5	9.4
20 - 24	16.2	4.6
25 - 29	20.0	4.1
30 - 34	20.3	4.0
35 - 39	15.7	4.7
40 - 44	9.4	6.3
45 - 49	5.9	8.1
50 - 54	4.1	9.9
55 - 59	2.2	13.6
60 - 64	1.0	20.8
65 and above	0.6*	26.6

Average monthly income distribution of e-Commerce consumers		
	Percentage	RSE
RM 1,000 and below	4.0	10.0
RM 1,000 - RM 3,000	29.2	3.2
RM 3,000 - RM 5,000	25.4	3.5
RM 5,000 and above	24.7	3.6
Dependent	16.7	4.6

Nationality distribution of e-Commerce consumers		
	Percentage	RSE
Malaysian	96.5	0.4
Non-Malaysian	3.5	10.6

Education attainment distribution of e-Commerce consumers		
	Percentage	RSE
Degree or higher (include Advanced Diploma)	44.3	2.3
Diploma	23.0	3.7
STPM/STAM/Certificate/UEC-Senior Middle Three	6.3	7.7
SPM/SPVM	21.2	3.9
Sijil 4 Thanawi/SMA	0.1	70.7
PT3/PMR/UEC-Junior Middle Three	2.1	13.9
Secondary school	1.7	15.5
Primary school	1.2	18.5
None	0.2*	40.8

Urban-rural distribution of e-Commerce consumers		
	Percentage	RSE
Urban	81.9	0.9
Rural	18.1	4.3