# Consumers' Online Shopping Patterns and Experiences During Covid-19 Circuit Breaker Period, and Their Future Shopping Behaviours


## ABSTRACT

The unexpected and unprecedented pandemic has brought new challenges and opportunities to retailers. As the retailers in Singapore hastened to adjust to a new normal, it became even more important to understand the local consumers' online shopping patterns and experiences.

Thus, this study was conducted to examine consumers' online buying behaviours and their assessments of their e-purchase encounters during the circuit breaker period (April to June 2020). An online questionnaire was utilised to collect data both remotely and in-person (using software platform to reduce physical contact).

The results showed that consumers' satisfaction levels with online shopping were generally positive in aspects that were related to product, delivery, customer service, etc. The outcome also indicated that both shoppers and non-shoppers could be influenced to shop online even more if there were lower prices, attractive loyalty rewards and unique products.



*Key words: e-shopping, online shopping behaviours, e-retail experiences*


## 1 INTRODUCTION

### 1.1 Background

The global economy was hard hit by the impacts of Covid-19. Singapore is no exception. The country's retail sector alone saw nearly 15 percent drop in sales - the worst plunge since 1998 (Tan, 2020).

In Singapore, the 26,599 retail establishments employed three percent of the nation's workforce and contributed to 1.5 percent (S$7,480 million) of 2018 GDP (Singapore Department of Statistics, 2020). Even without Covid-19, retailers already faced the threats of rising costs, declining sales and competition from e-commerce.

With the pandemic that exacerbated the challenges, the Singapore government has availed assistance schemes such as wage subsidies and e-commerce booster package (Enterprise Singapore, 2020; Choo, 2020). Industry players such as Carousell have also offered packages to help retailers and service merchants move their businesses online (Williams, 2020).

However, against such a backdrop of unprecedented transformations, it is unclear if businesses are adopting the e-retail mode with fundamental understanding about consumers' online shopping behaviours and expectations. Thus, Singapore Institute of Technology (SIT) collaborated with Singapore Retailers Association (SRA) to conduct a study to fill this information gap.

As an academic institution, SIT was responsible for the project design, fieldwork implementation and data analysis. As an industry entity, SRA lent support towards questionnaire content and distribution, as well as the sourcing of sponsorship for the tokens of appreciation for respondents.

## 1.2 Research Objectives and Questions

The over-arching objective of the research project was to understand local consumers' online shopping patterns and experiences during the circuit breaker period (7 April to 1 June 2020), as well as their future shopping behaviours.

Aligned with the objective, there were three broad research questions:

a) <u>What were the online purchase behaviours during circuit breaker period?</u>
Past research has established that consumers' demographics, attitude and behavioural intention all impacted online purchase behaviour (Akman & Rehan, 2014; Yeo, Goh & Rezaei, 2017). For this research project, the aspects of purchase behaviours that were examined included purchase frequency, transaction amount, consideration factors and motivations.

b) <u>How were the online purchase experiences during circuit breaker period?</u>
It was recommended that companies understand customer experience so that important steps could be taken to improve the retail encounter and the bottomline (Meyer & Schwager, 2007). Towards this end, this research question aimed to determine consumers' satisfaction with product variety, availability, information, online ease of use, delivery, customer service support, etc.

c) <u>What are consumers' intended behaviours?</u>
Beyond past and present consumer trends, it is necessary to establish customers' potential patterns (Meyer & Schwager, 2007). Thus, this question sought to gauge consumers' intention to continue with online shopping, and the factors that could encourage even more future purchases. As it has become easier for consumers to compare alternatives and have low switching costs (Khawaja, Varun, & Hwang, 2005), it is crucial for retailers to create and sustain their own competitive advantages.

The study has both relevance and significance for the industry. The research findings could enhance retailers' knowledge about the consumers, and such understanding could affect e-retail strategies on how to attract, engage and retain shoppers.

# 2 LITERATURE REVIEW

In alignment with the above-mentioned research questions, this literature review section consists of three corresponding sections; namely:

- Online purchase behaviours;
- Online shopping experiences; and
- Consumers' future e-retail behaviours.

## 2.1 Online Purchase Behaviours

Online shopping has grown at a phenomenal rate within the past two decades. From a manifested trend that provided a quick access to products at any given time, it has shaped the retail scene worldwide, garnering about 1.8 billion users and US$2.8 trillion global sales in 2018 (Savoie & Raisinghani, 1999; Statista, 2018; Williams, 2009).

### 2.1.1 Demographics

Gender

Literature has shown that demographic factors such as gender, age and income all affected individuals' adoption of online purchasing (Beneke, Scheffer, & Du, 2010; Cheung, Chan, & Limayen, 2005; Lightner, 2003; Sim & Koi, 2002; Teo & Lim, 2004).

While gender has been found to be an influencing variable, its impact on online commerce has been non-conclusive. The usual, possibly stereotypical assumption is that women like to shop more than men. Researchers such as Dai (2007) have reported that women outnumbered men where online shopper population and expenditures were concerned.

However, a study by market research company First Insight indicated otherwise. It seemed that men were more likely to shop online than women, and they were also more likely to rely on technology to steer their shopping decisions (Holmes, 2019). This result corroborated with those from earlier studies.

For example, Basan's (2010) research found that men's cognitive, affective, and behavioural online shopping attitudes were higher than those of women. Farag, Krizet, and Dijst (2003) supported that most online buyers were male. Additionally, Dittmar, Long, and Meek (2004) pointed out that while women might have more positive attitude towards conventional than online shopping, men's attitudes did not vary significantly between the two forms of shopping – suggesting that online shopping might actually be more attractive or appealing to men, as compared to women.

Age

With regard to the different age groups' tendencies towards e-purchasing, the more common research outcome suggested that age was inversely related to online shopping

(Hwang, Jung, & Salvendy, 2006; Farag, Krizet, & Djist, 2003; Beneke, Scheffer, & Du, 2010). Bhatnagar and Ghose (2004) proposed an explanation that possibly, as consumers grew older, conducting shopping-related online search might require more physical effort.

Lian and Yen (2014) found that older adults also had barriers such as risk and tradition - which the younger group might not have. As compared to the previous generation, the younger millennials were raised with internet. Thus, they were usually familiar with online technology and likely to be savvy in avoiding the risks of online shopping (Obal & Kunz, 2013; Schewe et al., 2013).

While it might be common to associate online shopping with younger age, there have been varied findings. For instance, Saarenpää and Tarja (2005) revealed that 57 percent of online consumers were 30 years old or older. Koyuncu and Lien (2003) supported that age could have significantly positive effects on online purchasing.

The optimism was supported by observed phenomena: older adults have been rapidly adopting new technologies; they also possess time and money to participate in e-commerce activities, especially after retirement (Hough & Kobylanski, 2009; Levy, 2002; Lian & Yen, 2014). It was also found that older Internet users' lower level of competency did not impact their intention to adopt technologies (Ching, Park, Wang, Fulk, & Mclaughlin, 2010).

<u>Income</u>
Where income is concerned, majority of studies reported that it affected online purchasing frequency and amount in a positive, associative way (Al-Debei, Akroush, & Ashouri, 2015; Lessita & Kol, 2016; Hwang, Jung, & Salvendy, 2006; Lightner, Yenisey, & Ozok, 2002; Sim & Koi, 2002; Farag, Krezik, & Dijst, 2006).

It has also been found that consumers who were income-rich but time-poor did find online shopping attractive due to its time-saving convenience (Punj, 2002). However, Shiu and Dawson (2002) found that Internet purchasing was not different for the various income groups in Britain and Taiwan.

### 2.1.2 Pre-purchase information search

Traditionally, consumers have been conducting their own research and doing their 'homework' before making purchases at the retail venues. When consumers could access more information, they would be more likely to engage in online shopping and then use the information to help in their purchase decisions (Jackson, Stoel, & Brantley, 2011; Khare & Rakesh, 2011).
In 2015, a Deloitte study estimated that 64 percent of consumers were already being influenced by online product information before their in-store purchases, especially for electronic and home furnishing items (Deloitte, 2020). In 2019, another study established

that 82 percent were reading consumers' online reviews; and among them, 97 percent also looked at businesses' responses to reviews (BrightLocal, 2020). The perusal of online reviews has grown to become an essential part of consumers' purchases decisions (Mintel, 2015).

Among the types and sources of information, user-generated content and reviews (including those on social media) have developed to be more influential than the traditional retailer-sponsored content (i.e., advertisements, retailer blogs, etc.). Even in the initial phase of information gathering, consumers relied on online reviews and opinions by experts or users, even if the users were anonymous (Kawaf & Istanbulluoglu, 2019). It was noted that such recommendations played a dominant role in eventual purchase decisions, with 85 percent of consumers trusting online reviews as much as endorsements from friends and relatives (Deloitte, 2020; Mathwick, 2020; Synthesio, 2020).

#### 2.1.3 Purchase categories

In a 2013 study by Morgan Stanley, it was revealed that while books, consumer electronics, athletic apparel and sporting goods had the highest percentage of being bought online globally, personal care and groceries were among the lowest, possibly because consumers did not want certain items to be delivered (Mahapatra, 2013). This has changed significantly in 2020.

Globally, the pandemic-related lockdowns have resulted in high demand for online shopping, especially grocery shopping (Ozilu & Arun, 2020; Donthu & Gustafsson, 2020; Perez, 2020). In Denmark, the spending on grocery shopping has doubled; in Canada, there was a notable increase in online grocery purchases made by retirees and households that previously did not purchase groceries online (Andersen, Hansen, Johannesen, & Sheridan, 2020; Charlebois, 2020).

In Singapore, the impact of Covid-19 on online shopping was evident too. The online share of retail sales was less than 10 percent over the past two years. However, during the circuit breaker period, the figure hit between 18 and 24 per cent (Singapore Department of Statistics, 2020).

Similar to the trend in other countries, groceries were among the most popular online shopping categories locally (Ng, 2020). Figures from Lazada indicated that besides groceries, the other top categories included video game consoles and accessories, home office furniture and fitness equipment – the sales volume of each of these categories exceeded 1,000 percent (Tan, 2020).

### 2.2 Online Shopping Experience

In order to successfully address the growing and rapidly changing expectations of online shoppers, recent e-commerce research have developed a strong customer experience agenda (Pandey & Chawla, 2018). Afterall, online shopping is more than just acquiring tangible products, it is e-interactivity that entails experience, enjoyment and entertainment (Tauber, 1972; Lee & Tan, 2003).

With rising market competition, consumers' online experience has been acknowledged to be a strong factor that shaped customer's perceptions about an e-retailer, and nurtured loyalty towards the seller-organisation (Mascarenhas, Leventhal, & Bernacchi, 2006; Pappas, Pateli, Giannakos, & Chrissikopoulos, 2014).

According to Khawaja, Varun, and Hwang (2005), a retail experience can be evaluated through the following six dimensions:

- Shopping;
- Buying;
- Delivery and installation;
- Using / operating;
- Service / repair / maintenance;
- Disposal / renewal.

For the scope of this study, the online experience will be discussed using the key aspects that are embedded in the dimensions of shopping, buying, delivery and service. These aspects are listed as follows:

- Products (variety, quality, availability, price);
- Website (navigability, atmospherics, trustworthy quality);
- Delivery (e-fulfilment);
- After-sales service (continuous communication, management of returns, feedback mechanism).

### 2.2.1 Products

Variety

When searching for an item, consumers often first evaluated the variety of products that were available. The satisfaction, perception and purchase intentions were all significantly affected by the breadth and depth of product mix (Cao, Gruca, & Klemz, 2003; Cho 2015; Heim & Sinha, 2001; Janda, Trocchia, & Gwinner, 2002; Liao, Palvia, & Lim, 2010; Otim & Grover, 2006).

In a study that used data involving 773,262 browsing sessions with a resultant 9,664 transactions across 43 types of product categories in 385 unique websites, it was established that the scope of product variety is positively linked to the visit durations of website, the purchase decision and the amount of money spent (Mallapragada, Chandukal, & Liu, 2016). One proposed reason was that the bigger collection kept consumers engaged and gave them the feeling of abundance such that they actually spent more money per transaction (Gonzalez-Benito & Martos-Partal, 2012; Khan & Dhar, 20-06; Richins, 2013).

It was assessed that online retailers with a wide range of products seemed to be more successful because consumers did expect an extensive variety (Chintagunta, Chua, & Cellobada, 2012; Gounaris & Dimitriadis, 2003). However, there was a cautionary mention that wide assortment alone was insufficient to achieve consumer satisfaction and e-commerce success.

<u>Quality</u>
Product quality and the development of innovative features have been highlighted to be crucial as well (Chintagunta, Chu, Cellobada, 2012; Luo & Bhattacharya, 2006; Prahald & Hamel, 1990). Several studies have shown that consumers would have high satisfaction and re-purchase frequency if the received products accurately reflected the descriptions in the website, and the details were adequately communicated in the first place (Massad & Berardelli, 2016; Cao, Gruca, & Klemz, 2003; Cao & Li, 2015; Collier & Bienstick, 2006; Thirumalai & Sinha, 2005).

<u>Availability</u>
Besides variety and quality, the availability and the related stock-out policies also had vital impact on purchase decision. While the effects of stock-outs might vary across different product categories, they commonly resulted in negative outcomes. When faced with a stock-out situation, consumers might substitute item, switch to another e-retailer, or even exit from Internet (Breugelmans, Campo, & Giksbrechts, 2006; Dadzie, & Winston, 2007).

A study based on grocery items found that while stock-outs might lead to increased purchases in the short run because new consumers were more tolerant, stock-outs would negatively impact the re-purchases of loyal consumers in the long run (Jing & Lewis, 2011). Another study involving apparel reinforced that stock-outs would cause consumers to develop negative perception of retailer (Kim & Lennon, 2011).

<u>Price</u>
Past studies showed that consumers routinely considered the price tag as part of their e-satisfaction appraisal (Chen & Dubinsky, 2003; Zeithaml, Bitner, & Gremler, 2006). They would assess the perceived value (i.e., a measure between the product quality upon receipt and the paid amount) to decide if the price was reasonable, acceptable, justifiable, or fair (Brynjolfsson, Hu, & Rahman, 209; Cao & Li, 2015; Bamfield, 2013).

It was documented that consumers generally adjusted their purchase behaviour based on their beliefs about future promotional offers (Erdem, Imai, & Keane, 2003; Sun, Neslin, & Srinivasan, 2003). It was also noted that even a big retailer such as Amazon.com has used lowered prices to influence purchase and re-purchase intentions (Nisar & Prabhakar, 2017).

Price adjustments (to lower / discounted amounts) did attract price-sensitive consumers who were likely to choose the best value for money, especially when prices were easy to locate and compare online (Yeo, Goh, & Rezaei, 2017; Quelch & Klein, 1996). Brynjolfesson and Smith (2000) correctly pointed out that there was really no technical or legal inhibition to prevent a shopper from seeking help in one website, and then easily clicking to another site to buy it.

While price remains a key driver in the purchase decision, quality has stepped up, or has to step up too. During the circuit breaker period, consumers bought what they needed and what were available. However, in the current situation, health and safety have also become consideration factors for purchases (Nielsen, 2020). Therefore, price alone may not determine the decision to click ‘buy’.

### 2.2.2 Website

Navigability

During the pre-purchase stage, navigability (i.e., ability to find the way around a site easily) and visual attractiveness could create favourable impressions of the website and positive perception of e-interactivity (Richard & Chandra, 2005; Merrilees & Fry, 2002; Park, Gretzel, &Sirakaya-Turk, 2007).

In fact, it was found that navigability could help to create effective switching barriers which meant that consumers would not change to alternative retailers. E-retailers could generate such barriers by learning about consumer preferences, using their recorded navigation and purchase histories (Hagel & Armstrong, 1997; Shapiro & Varian, 1999).

Atmospherics

It was established that website atmospherics were equivalent to the physical retail environment (Alba, Weitz, & Janiszewski, 1997; Childers, Carrer, Peck, & Carson, 2001). In the brick-and-mortar world, stimulus cues such as colour, music or aroma in the retail environment affected consumers’ emotions and subsequently behaviour (Mehrabian & Russell, 1974).

In the online world, the elements of web atmospherics such as graphics, visuals, audio, colour, image resolution, video and 3D displays had the same kind of effect on consumer behaviour (Dailey, 2004; Eroglu, Macleit, & Davis, 2003).

Studies have showed that navigability and attractive designs, when combined with information, entertaining features and gamification, would provide an enjoyable online flow experience (Huang, 2003; Huang, Backman, & Backman, 2012; Cai & Xu, 2011; Bridges & Florsheim, 2008). The satisfaction with the online flow would then lead to customers being more likely to re-visit the website and even buying from it (Ilsever, Cyr, & Parent, 2007).

With regard to the design of the website, there was a reminder to exercise thoughtfulness and achieve balance. On one hand, functional features such as FAQ section, community forum, and product information could facilitate browsing. On the other hand, they might cause clutter that impeded the search process and negatively affected the outcome (Mallapragada, Chandukala & Liu, 2016). Afterall, when consumers first viewed a website, they focused on the overall appearance of a website instead of all the specific contents (Fogg et al. 2002; Schenkman & Jonsson, 2000).

Trustworthy quality

In addition to navigability and atmospherics, a website has to 'exude' trust which was essential in e-shopping (Fortin, Dholakia, & Dholakia, 2002; Goode & Harris, 2007; Lee & Turban, 2001). Trust was defined as the "willingness to rely on an exchange partner in whom one has confidence" (Moorman, Zaltman, & Deshpande, 1992, p. 315).

For successful e-commerce, consumers must feel that the website was trustworthy and reliable, and the trust had to be continuing rather than just an initial judgment (Liu & Arnett, 2000; Gefen, Karahanna, & Starub, 2003). Such enduring trust would be reinforced by consumers' previous experiences of online purchasing (Gefen, Benbasat., & Pavlou, 2008).

Lee and Tan (2003) found that consumers were more likely to shop online from reputable retailers that carried lesser-known brands, instead of lesser-known retailers that availed well-known brands. This was due to the lower degree of perceived risk.

Ultimately, online consumers did not only accept the Internet technology as a possible transaction platform, they also considered the online retailers as reliable merchants (Brynjolfsson, Hu, & Rahman, 2009). A survey of eBay users showed that website quality could explain 49 percent of the difference in trust for eBay sellers – those with positive website quality were perceived to be more dependable (Gregg & Walczak, 2010).

Closely linked to trust are the attributes of security and privacy. Respectively, they referred to the safety of financial information and the protection of individually identifiable information (Bart, Shankar, Sultan, & Urban, 2005; Jones & Vijayasarathy, 1998; Swaminathan, Lepkowska-White, & Rao, 1999).

Bhatt and Bhatt (2012) found that while regular online buyers were most influenced by the ease and attractiveness of a website, the occasional buyers tended to value security more. That was why despite the convenience, many consumers were still hesitant to shop online due to perceived risk about information privacy, security and credit card use (Chen et al, 2016). This lack of trust was identified to be one of the greatest barriers that hampered online transactions (Ha & Stoel, 2009; Kim, Xu, & Gupta, 2012).

### 2.2.3 Delivery (e-fulfilment)

After the online purchase was made and check-out was done, the level of consumer satisfaction continued to be impacted by delivery. Any negative encounter with the last-mile delivery process and total delivery time would reduce consumer satisfaction, even if the experience has been flawless in the earlier stages of online shopping (Jiang & Rosenbloom, 2005; Vakulenko, Shams, Hellström, & Hjort, 2019).

Literature has indicated that last-mile delivery encompassed not just physical delivery. It also included information related to delivery options, shipping fees, handling charges and order tracking (Cao, Gruca, & Klemz, 2003; Collier & Bienstock, 2006; Esper, Jensen, Turnipseed, & Burton, 2003).

Order tracking was instrumental to help consumers reduce anxiety and gain a sense of control during the delivery period. Rao, Griffis and Goldsby (2011) found that the number of times a consumer tracked the status of an order increased with the length of delivery delay.

Studies have reached the same conclusion that the delivery of a product in a timely, reliable manner was a critical part of Internet sales - it affected all fundamental objectives of the online value proposition as well as consumers' trust, loyalty and re-purchase behaviour (Ahn, Ryu & Han, 2004; De Koster, 2003; Lummus & Vokurka, 2002; Cheung, Chan, & Limwayen, 2005; Bart, Shankar, Sultan, & Urban, 2005).

### 2.2.4 After-sales service

Continuous communication

Consumer experience may be created to drive shoppers to click 'buy' button. But that click does not represent the end of a commercial transaction. Rather, it marks the beginning of a relationship.

Although the products offered by a company constitute the actual source of customer value, post-sale service rendered by the e-retailer can substantially augment the benefits received, as well as reduce the shopper's non-monetary costs such as time, effort and mental stress (Parasuraman & Grewal, 2000). Researchers have also reiterated that while product quality and price were important, service (even in the post-purchase stage) could serve to provide sustainable value that was unique as service was more difficult to copy than the other tangible aspects (Griffth & Krampf, 1998).

Sephora was cited as an example that displayed such after-sales efforts in its service process: its customers received a delivery tracking page, alongside recommendation and educational content that maintained their excitement about their purchased items (Sharma, 2016). That leveraged consumers' behaviour: while they were waiting for product delivery, they were open to communications with e-retailers, particularly if there was customised content.

<u>Management of returns</u>
Even for e-retailers that do not intentionally connect with consumers, the communication often continues. This is because returns have become a norm of the shopping process, and they occur due to different reasons such as dissatisfaction and buyer’s remorse, especially when there is no trying of the product beforehand (Deloitte, 2020; Griffis, Rao, Goldsby, & Niranjan, 2012).

Thus, consumer’s relationship with e-retailers could remain to be positively influenced if there was clear presentation of returns policy, or there was ease of return that involved procedures, options and handling (Fisher, Gallino, & Xu 2016; Bart, Shankar, Sultan, & Urban, 2005; Janda, Trocchia & Gwinner, 2002; Dadzie, & Winston, 2007; Mollenkopf, Rabinovich, Laseter, & Boyer, 2007).

It was found that while free returns could result in more returns, they could also lead to an increase in post-return re-purchases (Bower & Maxham, 2012; Lantz & Hjort, 2013). Moreover, a full return policy with 100 percent refund and free shipping on any size could produce a higher positive impact on purchase intention, as compared to a partial policy (Li, Xu, & Li, 2013).

<u>Feedback mechanism</u>
Without direct human contact, it was harder to affect loyalty since it was easier for consumers to switch companies without even complaining (Chia, 2003; Nisar & Prabhakar, 2017). Thus, it was suggested for feedback mechanisms to be implemented effectively to influence re-purchase intentions, among other desired outcomes (Khawaja, Varun, & Hwang, 2005; Wang, Du, & Olsen, 2018). Amazon.com Inc., for example, reported that more than 50 percent of its sales were from repeat consumer purchases (Statista, 2015).

To complement the feedback mechanisms, it was also recommended that responsiveness should be improved. If there were rapid and dependable service to help customers resolve complaints, then the e-retailer could win back consumers, maintain good relationships, regain their trust, generate positive word-of-mouth and eventually, affect re-purchases (Chen et al, 2006; Yen & Lu, 2008; Sharma, 2016).

## 2.3 Consumers’ Future e-Retail Behaviours

Consumers’ past behaviour and their trust in e-retailer could be a consistent predictor for their future browsing and purchasing actions (Lee & Rha, 2016; Pappas, Kourouthanassis, Giannakos, & Chrissikopoulos, 2017, Shankar, Smith, & Rangaswamy, 2003). Consumers with past online shopping experiences (and who have bought their desired products) would be more inclined to re-purchase in the future, as compared to those who were without (Weisberg, Te'eni., & Arman, 2011; Chaudary, Ahmed, Gill, & Rizwan, 2014; Mallapragada, Chandukala & Liu, 2016).

With the prior experience, customers would be less anxious about the ambiguity of websites; they would find it easier to use and re-visit (Shim et al., 2001; Weisberg et al., 2011). The more positive the consumers' experience with online transactions in the past, the higher the likelihood for them to re-purchase (Nwaizugbo & Ifeanyichukwu, 2016).

Generally, it does look like the penetration of consumers venturing into e-commerce is set to rise. Among those who purchased household goods online for the first time during the pandemic, 69 percent claimed they will do so again within the next 12 months (Nielsen, 2020).

This was concurred by Richards and Rickard (2020) that once consumers have learnt how to shop groceries online and experienced the advantages of convenience and speed, many are likely to remain online shoppers, at least occasionally. While these previous studies focused on household and grocery items, it is reasonable to assume that the results could be generalised to other product categories. Afterall, it was reported that a significant portion of late adopters who were averse to online shopping have started to engage in e-retail activities after the onset of Covid-19 (Morning Consult, 2020).

There was a finding that beliefs about the usefulness and ease of use could determine consumers' attitudes towards the adoption of online shopping technology, even though there might be differences among the diverse groups of shoppers, such as the potential ones, the new ones, and the experienced ones (Gianina & Lala, 2014; Hernandez-Ortega, Jimenez-Martinez, & Martin-DeHoyos, 2008).

One way to further capitalise on the increased adoption of online shopping is to build long-term relationship with consumers. Khawaja, Varun, and Hwang (2005) recommended that similar to loyalty programmes that exist in the physical marketplace, e-retailers can also use technology to facilitate the management of e-loyalty programmes.

# 3 METHODOLOGY

This exploratory study adopted a mixed methodology: quantitative and qualitative methods were used between 19 July 2020 and 22 August 2020.

## 3.1 Quantitative method

An online Qualtrics questionnaire was distributed to a non-probability sample that comprised the research team's and SRA's contacts. Some of the participants voluntarily proceeded to send the questionnaire link or QR code to their own network of contacts.

The method was chosen to collect a considerable amount of data in the most convenient way. There were no exclusion criteria as long as the participants had basic IT skills and English language ability to understand the content and respond to the online questionnaire.

The questionnaire format included multiple choice and open-ended questions. For the question on shopping experiences, a three-point scale (‘dissatisfied’, ‘neutral’, ‘satisfied’) was used instead of a four- or five-point scale. The decision was made so that the appearance of the online questionnaire could fit the sizes of mobile phone screens. The 11 items for that experience-related question had a Cronbach’s alpha of 0.817 which indicated a high level of internal consistency for the scale.

Different respondents answered varied number of questions, as listed in Table 1 below:

Table 1: Length of questionnaire

| **Respondents’ online shopping behaviours during circuit breaker period** | **Number of questions** (excluding 3 common questions on demographics) |
|---|---|
| Shopped online (only local shops) | 16 |
| Shopped online (only overseas shops) | 17 |
| Shopped online (both local and overseas shops) | 19 - 20 |
| Did not shop online | 3 |

Data were generated, organised and analysed using Qualtrics and Statistical Package for the Social Sciences (SPSS) version 26. Descriptive statistics, cross-tabulations and Pearson Chi-Square test were utilised to examine the data.

### 3.2 Qualitative method

A total of 60 participants, selected through convenience sampling, individually completed the online questionnaire in the presence of one research team member. They were asked to elaborate some of their responses and provide more insights on their thoughts and opinions. Each of the 60 participants received an e-voucher that was sponsored by NTUC Fairprice.

### 3.3 Ethics

Ethical approval was granted by Singapore Institute of Technology’s Institutional Review Board. Participants were informed that their participation was voluntary and anonymous. That was outlined at the start of the online questionnaire. Participants had to indicate that they agreed to take part before they could proceed with the questionnaire.

In addition, the 60 participants who were interviewed had the opportunity to read the Participant Information Sheet. They had to give their consent prior to the commencement of interview sessions.

# 4 RESEARCH OUTCOME

Between 17 July and 22 August 2020, a total of 1,083 online questionnaire responses were received. After omitting 99 who opted out at the very early stage of survey (e.g., with less than three answers), the eventual number that was analysed was 985. This number included the 60 that were completed via interviews.

## 4.1 Demographics

### 4.1.1 Overview of the entire sample

The 985 respondents comprised 58.6 percent female (n=577) and 37.5 percent male (n=369). Another 4.0 percent (n=39) chose not to indicate their gender.

Table 2: Gender

| | Frequency | Percent (%) |
|---|---|---|
| Male | 369 | 37.5 |
| Female | 577 | 58.6 |
| Did not indicate | 39 | 4.0 |
| **Total** | **985** | **100.0** |

Majority of respondents were 30 years old (45.2 percent, n=445). The remaining respondents were largely distributed among the other three older age groups.

Table 3: Age

| | Frequency | Percent (%) |
|---|---|---|
| Below 30 years old | 445 | 45.2 |
| 31- 40 years old | 162 | 16.4 |
| 41- 50 years old | 169 | 17.2 |
| Above 50 years old | 170 | 17.3 |
| Did not indicate | 39 | 4.0 |
| **Total** | **985** | **100.0** |

Corresponding to the number of respondents who were below 30 years old, 41.7 percent (n=413) were earning less than $3,000 per month, while 14.7 percent (n=147) had a monthly income of more than $7,000.

Table 4: Monthly income

| | Frequency | Percent (%) |
|---|---|---|
| Below $3,000 | 413 | 41.9 |
| $3,001 - $5,000 | 225 | 22.8 |
| $5,001 - $7,000 | 159 | 16.1 |
| Above $7,000 | 147 | 14.9 |
| Did not indicate | 41 | 4.2 |
| **Total** | **985** | **100.0** |

While the respondents' profile might be skewed towards the younger age group due to the research team's contact network, past research has highlighted that the majority of Singaporean online shoppers were aged 25 to 34 years old (Branding in Asia, 2017). They belong to the cohort of millennials who are the first truly digital generation; they were already making 60 percent of their purchases online and are expected to become the largest consumer group in Singapore (Donnelly & Scaff, 2013; Lim, 2019).

### 4.1.2 The shoppers and the non-shoppers

Among the 985 respondents, 88 percent (n=868) shopped online during the circuit breaker period while 11 percent (n=117) did not.

Cross-tabulations indicated that the respondents who shopped were predominantly female (60.5 percent, n=525). Pearson Chi-Square test showed that there was a statistically significant association between gender and online shopping during circuit breaker ($\chi^2$ = 15.740, $p$ = .000) but the association was moderate (Phi and Cramer's V values =.126). This meant that gender did moderately affect whether the respondents shopped or did not shopped.

Nearly half of the shoppers (46.7 percent, n=405) were below 30 years old, with the other half (49.1 percent, n=426) being above 30 years. Using Pearson Chi-Square test, it was found that age was also associated with online shopping ($\chi^2$ = 39.640, $p$ = .000) and the association was rather strong (Phi and Cramer's V values =.201). This implied that age did influence the online shopping decision; not all age groups were equally likely to shop online.

Among the shoppers, 53.3 percent (n=461) reported a monthly income of more than $3,000. Pearson Chi-Square test indicated there was no statistically significant association between monthly income and online shopping during circuit breaker ($\chi^2$ = 5.972, $p$ = .201). The strength of association between these variables was also weak (Phi and Cramer's V values =.078). The result connoted that income did not affect online shopping decision. Respondents from different income levels were equally likely to shop online.

For the non-shoppers, cross-tabulation results illustrated that the difference between the genders was not significant. There were 53.8 percent male (n=63) and 44.4 percent female (n=52). The number of non-shoppers who were above 50 years old (37.6 percent, n=44) was similar to the number who were below 30 years old (34.2 percent, n=40). The non-shoppers included those with more than $7,000 monthly income (18.8 percent, n=22).

The cross-tabulated demographics and shopping behaviours are compiled in Table 5 in the next page.

Table 5: Cross-tabulation of demographics and shopping behaviours during circuit breaker

| Shopped online | Demographics | Frequency | Percent (%) |
|---|---|---|---|
| **Yes** | | **868** | **88.1** |
| | Male | 306 | 35.5 |
| | Female | 525 | 60.5 |
| | Did not indicate | 37 | 4.3 |
| | | | |
| | Below 30 years old | 405 | 46.7 |
| | 31-40 years old | 149 | 17.2 |
| | 41-50 years old | 151 | 17.4 |
| | Above 50 year old | 126 | 14.5 |
| | Did not indicate | 37 | 4.3 |
| | | | |
| | Below $3,000 mthly income | 366 | 42.2 |
| | $3,001-$5,000 mthly income | 193 | 22.2 |
| | $5,001-$7,000 mthly income | 145 | 16.7 |
| | Above $7,000 mthly income | 125 | 14.4 |
| | Did not indicate | 39 | 4.5 |
| | | | |
| **No** | | **117** | **11.9** |
| | Male | 63 | 53.8 |
| | Female | 52 | 44.4 |
| | Did not indicate | 2 | 1.7 |
| | | | |
| | Below 30 years old | 40 | 34.2 |
| | 31-40 years old | 13 | 11.1 |
| | 41-50 years old | 18 | 15.4 |
| | Above 50 year old | 44 | 37.6 |
| | Did not indicate | 2 | 1.7 |
| | | | |
| | Below $3,000 mthly income | 47 | 40.2 |
| | $3,001-$5,000 mthly income | 32 | 27.4 |
| | $5,001-$7,000 mthly income | 14 | 12.0 |
| | Above $7,000 mthly income | 22 | 18.8 |
| | Did not indicate | 2 | 1.7 |
| **Total** | | **985** | **100.0** |

## 4.2 Online Purchase Behaviours

### 4.2.1 Shopping frequency and motivations

It was within expectation that among those who shopped online, 66.7 percent (n=579) did more often during circuit breaker, as compared to previously. However, there were 5 percent (n=43) who shopped less during circuit breaker, as shown in Table 6 in the next page.

Despite most respondents shopping online more often, many of them shopped only once in a few weeks. Those who shopped almost daily constituted the minority, and the more typical profile was female below 30 years old.

Table 6: Shopping frequency during circuit breaker

| | **Frequency** | **Percent (%)** |
|---|---|---|
| More often during circuit breaker | 579 | 66.7 |
| No change from before | 246 | 28.4 |
| Less often during circuit breaker | 43 | 5.0 |
| **Total** | **868** | **100** |
| | | |
| Once in a few weeks | 351 | 40.5 |
| Once a week | 265 | 30.4 |
| 2-3 times a week | 212 | 24.5 |
| Almost every day | 40 | 4.6 |
| **Total** | **868** | **100** |

The top two reasons for respondents' online shopping during circuit breaker were: the need for the items, followed by promotional deals.

Table 7: Reasons for shopping during circuit breaker
(respondents could select multiple answers)

| | **Frequency** | **Percent (%)** |
|---|---|---|
| I needed the items | 622 | 71.7 |
| There were promotional deals | 560 | 64.5 |
| I was bored | 365 | 42.1 |
| I have always enjoyed shopping | 266 | 30.6 |
| Others: | 34 | 3.9 |
| ○ *Convenience* | *11* | *1.3* |
| ○ *Business needs / New hobbies* | *9* | *1.0* |
| ○ *I want to avoid the crowd* | *8* | *0.9* |
| ○ *Closure of physical shops* | *6* | *0.7* |

Conversely, among the respondents who did not shop online during circuit breaker, more than half of them (53 percent, n=62) indicated the same reason: they already had all that they needed at home. The green movement might also have its effect, as expressed by an interviewee that she was going green and cutting down on material acquisitions.

Almost another half of them (49.6 per cent, n=58) preferred shopping at physical stores. Based on cross-tabulation result, this group of non-shoppers were of different age groups: 34.5 percent (n=20) were above 50 years old, while 24.1 percent (n=14) were below 30 years old.

Up to 10.3 percent (n=12) admitted that they did not know how to shop online. Cross-tabulations revealed that 11 out of these 12 were above 50 years old.

Table 8: Reasons for not shopping online during circuit breaker
(respondents could select multiple answers)

| | **Frequency** | **Percent (%)** |
|---|---|---|
| I had all that I needed at home | 62 | 53.0 |
| I prefer shopping at physical stores | 58 | 49.6 |
| Someone else did the shopping for me | 34 | 29.1 |
| I don't know how to shop online | 12 | 10.3 |
| Others: | 8 | 6.8 |
| ○ *Watching expenses* | *3* | *2.6* |
| ○ *Work commitments* | *3* | *2.6* |
| ○ *Shopping only for essentials* | *2* | *1.7* |

### 4.2.2 Choice of shops

The 868 shoppers predominantly shopped on both local and overseas shops (66.9 percent, n=659). A small group chose only local shops (16.9 percent, n=165) and an even smaller group selected only overseas shops (4.5 percent, n=44).

Table 9: Chosen types of online shops

| | **Frequency** | **Percent (%)** |
|---|---|---|
| Only local shops | 165 | 16.9 |
| Only overseas shops | 44 | 4.5 |
| Both local and overseas shops | 659 | 66.9 |
| **Total** | **868** | **100.0** |

Cross-tabulations showed that regardless of the types of shops (‘only local’, ‘only overseas’, ‘both local and overseas’), the shoppers had a similar demographic profile of being below 30 years old and having a monthly income of under $3,000.

The only difference was that those who shopped at only local shops, as well as both local and overseas shops were likely to be female. On the other hand, those who shopped at only overseas shops were more probably male. The cross-tabulations of demographics and chosen types of online shops are displayed in Table 10 in the next page.

Table 10: Cross-tabulation of demographics and chosen types of online shops

| | Demographics | Frequency | Percent (%) |
|---|---|---|---|
| **Only local shops** | | **165** | **16.9** |
| | Male | 70 | 42.4 |
| | Female | 94 | 57.0 |
| | Did not indicate | 1 | 0.6 |
| | | | |
| | Below 30 years old | 74 | 44.8 |
| | 31-40 years old | 42 | 25.5 |
| | 41-50 years old | 22 | 13.3 |
| | Above 50 year old | 27 | 16.4 |
| | Did not indicate | 0 | 0 |
| | | | |
| | Below $3,000 mthly income | 72 | 43.6 |
| | $3,001-$5,000 mthly income | 41 | 24.8 |
| | $5,001-$7,000 mthly income | 31 | 18.8 |
| | Above $7,000 mthly income | 21 | 12.7 |
| | Did not indicate | 0 | 0.0 |
| | | | |
| **Only overseas shops** | | **44** | **4.5** |
| | Male | 24 | 54.5 |
| | Female | 20 | 45.5 |
| | Did not indicate | 0 | 0.0 |
| | | | |
| | Below 30 years old | 23 | 52.3 |
| | 31-40 years old | 6 | 13.6 |
| | 41-50 years old | 11 | 25.0 |
| | Above 50 year old | 4 | 9.1 |
| | Did not indicate | 0 | 0 |
| | | | |
| | Below $3,000 mthly income | 21 | 47.7 |
| | $3,001-$5,000 mthly income | 5 | 11.4 |
| | $5,001-$7,000 mthly income | 10 | 22.7 |
| | Above $7,000 mthly income | 8 | 18.2 |
| | Did not indicate | 0 | 0.0 |
| | | | |
| **Both local and overseas shops** | | **659** | **66.9** |
| | Male | 212 | 32.2 |
| | Female | 411 | 62.4 |
| | Did not indicate | 36 | 5.5 |
| | | | |
| | Below 30 years old | 308 | 46.7 |
| | 31-40 years old | 101 | 15.3 |
| | 41-50 years old | 118 | 17.9 |
| | Above 50 year old | 95 | 14.4 |
| | Did not indicate | 37 | 5.6 |
| | | | |
| | Below $3,000 mthly income | 273 | 41.4 |
| | $3,001-$5,000 mthly income | 147 | 22.3 |
| | $5,001-$7,000 mthly income | 104 | 15.8 |
| | Above $7,000 mthly income | 96 | 14.6 |
| | Did not indicate | 39 | 5.9 |
| **Total** | | **868** | **100.0** |

Those who shopped at only local shops

Among the 165 respondents who did their shopping at only local shops, the top reason was the reduced waiting time, followed by affordability and reviews / recommendations.

The ‘local’ element was selected or mentioned at least 39 times, embedded in various reasons such as local availability, support of local businesses, and being more inclined to trust local quality. This ‘nationalistic’ preference presented an opportunity that could be harnessed by the local retail industry.

Table 11: Reasons for shopping at only local shops
(respondents could select multiple answers)

| | **Frequency** | **Percent (%)** |
|---|---|---|
| Reduced waiting time | 126 | 29.9 |
| Affordability | 63 | 15.0 |
| Good reviews / recommendations | 56 | 13.3 |
| I have not considered shopping at overseas shops | 40 | 9.5 |
| Good product variety | 35 | 8.3 |
| Products are available only locally | 34 | 8.1 |
| Better product quality | 33 | 7.8 |
| Better customer service | 24 | 5.7 |
| Others: | 15 | 3.6 |
| ○ *Support local businesses* | *5* | *1.2* |
| ○ *Did not need overseas shops for my items* | *2* | *0.5* |
| ○ *Easier communication* | *2* | *0.5* |
| ○ *Reliability* | *1* | *0.2* |
| **Total** | **421** | **100.0** |

The top choices of local shops / categories for these 165 respondents were namely, Shopee, Lazada, Zalora and Qoo10, followed by the supermarkets and food delivery apps, etc. The list is as shown in Table 12 on the next page.

Table 12: Top local online shops / categories

| | Frequency | Percent (%) |
|---|---|---|
| Shopee | 92 | 28.2 |
| Lazada | 57 | 17.5 |
| Zalora | 33 | 10.1 |
| Qoo10 | 30 | 9.2 |
| Groceries (*NTUC, RedMart, Sheng Siong)* | 24 | 7.4 |
| Food delivery apps (*GrabFood, Foodpanda, WhyQ)* | 18 | 5.5 |
| Other online retailers (*Book Depository, Steigen, iShopChangi)* | 15 | 4.6 |
| Carousell | 14 | 4.3 |
| Online blogshops (*Fairebelle, Lovet, Young Hungry Free, Our Bralette Club, Shein)* | 14 | 4.3 |
| Online fashion shops (*Cotton On, Love Bonito, MDS Collections, Fashmob, The Closet Lover, Pomelo, Uniqlo)* | 14 | 4.3 |
| Sports equipment (*Adidas, Decathlon, Nike)* | 7 | 2.1 |
| Electronics / Furniture (*Challenger, Courts, Dyson)* | 6 | 1.8 |
| Health products (*Amway)* | 2 | 0.6 |
| **Total** | **326** | **100.0** |

Those who shopped at only overseas shops

As for the 44 respondents who shopped at only overseas shops, the key reasons were affordability, variety, availability and reviews / recommendations, as shown in Table 13 below. Their top shop choices were in the categories of fashion and lifestyle items, as listed in Table 14 in the next page.

Table 13: Reasons for shopping at only overseas shops

| | Frequency | Percent (%) |
|---|---|---|
| Affordability | 25 | 22.5 |
| Good product variety | 24 | 21.6 |
| Products are available only overseas | 24 | 21.6 |
| Good reviews / recommendations | 20 | 18.0 |
| Better product quality | 8 | 7.2 |
| I have not considered shopping at local shops | 5 | 4.5 |
| Better customer service | 4 | 3.6 |
| Others: | 1 | 0.9 |
| ○ *Clothes and specialised items* | | |
| **Total** | **111** | **100.0** |

Table 14: Top overseas online shops / categories

| | Frequency | Percent (%) |
|---|---|---|
| Fashion & Apparel (*ASOS, END clothing, Slamjam, HBX, Mr Porter, Shein, Betterthanblouses)* | 21 | 29.2 |
| Lifestyle items (*rcMart, eSaabparts, Olens, Banggood)* | 19 | 26.4 |
| Amazon | 11 | 15.3 |
| Taobao | 8 | 11.1 |
| AliExpress | 7 | 9.7 |
| Health products (*Swanson)* | 3 | 4.2 |
| Education (*Book Depository)* | 2 | 2.8 |
| Sports equipment (*Myprotein)* | 1 | 1.4 |
| **Total** | **72** | **100.0** |

Those who shopped at both local and overseas shops

For the majority of 659 respondents who shopped at both local and overseas shops, the reasons for their choices of local and overseas shops were generally similar to the other two groups who preferred only local or overseas shops.

The subsequent Tables 15 and 16 list their reasons for shopping at local shops, and their top local shops / categories.

Table 15: Reasons for shopping at local stores
(for those who shopped at both local & overseas shops; respondents could select multiple answers)

| | Frequency | Percent (%) |
|---|---|---|
| Reduced waiting time | 538 | 32.4 |
| Good reviews / recommendations | 317 | 19.1 |
| Affordability | 251 | 15.1 |
| Products are available only locally | 223 | 13.4 |
| Good product variety | 114 | 6.9 |
| Better product quality | 103 | 6.2 |
| Better customer service | 82 | 4.9 |
| Others: | 35 | 2.1 |
| ○ *Reliability / responsiveness* | *14* | *0.8* |
| ○ *Support local business* | *7* | *0.4* |
| ○ *Convenience* | *5* | *0.3* |
| ○ *Easy return / refund* | *5* | *0.3* |
| ○ *Daily necessities* | *4* | *0.2* |
| **Total** | **1,663** | **100.0** |

Table 16: Top choices of local shops / categories
(for those who shopped at both local & overseas shops)

| | **Frequency** | **Percent (%)** |
|---|---|---|
| Shopee | 454 | 31.4 |
| Groceries / Lifestyle (*NTUC, Redmart, Klook)* | 250 | 17.3 |
| Lazada | 219 | 15.2 |
| Zalora | 116 | 8.0 |
| Qoo10 | 104 | 7.2 |
| Other online retailers (*ezbuy, Amazon, Fave, Garden Picks, Opentaste, Pupsik Studio, Mothercare)* | 87 | 6.0 |
| Online fashion shops (*Love Bonito, The Editor's Market, Benjamin Barker, Saturday Club, Love & Bravery)* | 57 | 3.9 |
| Food delivery apps (*GrabFood, Foodpanda)* | 47 | 3.3 |
| Health / Beauty products (*Sephora, Watsons, Guardian, Sigi Skin, Yours skincare, Hush.sg, iHerb)* | 45 | 3.1 |
| Sports equipment (*Adidas, Decathlon, Myprotein, Kydra, Nike, New Balance)* | 28 | 1.9 |
| Online blogshops (*Facebook live, Instagram shops, Topazette, Neonmello, Lovet)* | 17 | 1.2 |
| Electronics / Furniture (*Challenger, Fstoplights, Courts, Philips, Spotlight, Hachi.tech, Hipvan, Castlery)* | 16 | 1.1 |
| Education (*BooksActually, EpigramBooks)* | 5 | 0.3 |
| **Total** | **1,445** | **100.0** |

Table 17 below list their reasons for shopping at overseas shops, with the top reason being the products are available only overseas. Examples included certain skincare brands, special footwear (e.g., nursing shoes) and collectibles (e.g., Starbucks limited edition items). Interviewees expressed that when they bought skincare products from countries such as USA, they felt more assured of the authenticity. Due to the (only) overseas availability and the trust, they were willing to pay higher prices.

Table 17: Reasons for shopping at overseas shops
(for those who shopped at both local & overseas shops; respondents could select multiple answers)

| | **Frequency** | **Percent (%)** |
|---|---|---|
| Products are available only overseas | 447 | 26.9 |
| Affordability | 407 | 24.5 |
| Good product variety | 387 | 23.3 |
| Good reviews / recommendations | 263 | 15.8 |
| Better product quality | 128 | 7.7 |
| Better customer service | 24 | 1.4 |
| Others: | 6 | 0.4 |
| ○ *Unique products* | *3* | *0.2* |
| ○ *Better online experience* | *2* | *0.1* |
| ○ *Not urgent, can afford to wait longer for delivery* | *1* | *0.1* |
| **Total** | **1,662** | **100.0** |

Table 18: Top choices of overseas shops / categories
(for those who shopped at both local & overseas shops)

| | **Frequency** | **Percent (%)** |
|---|---|---|
| Taobao | 287 | 30.0 |
| Fashion & apparel (*ASOS, END clothing, Alani Nu, Shein, Everlane, 7 for All Mankind, adlv, Zaful)* | 170 | 17.8 |
| Amazon | 161 | 16.8 |
| Ezbuy | 57 | 6.0 |
| Other e-commerce (*Wish, Gmarket, JingDong, Yesasia)* | 54 | 5.6 |
| Health / Beauty products (*iHerb, LOOKFANTASTIC, Feelunique, iQueen Sg, Glossier, ColourPop)* | 50 | 5.2 |
| Shopee | 48 | 5.0 |
| AliExpress | 34 | 3.6 |
| Lazada | 34 | 3.6 |
| Lifestyle items (*Moment Lens, Paulsen eyewear, Casetify, Roka, Kyobo)* | 22 | 2.3 |
| Education / Electronics (*Abebooks, Book Depository, The Good Book Company)* | 21 | 2.2 |
| Sports equipment (*Myprotein, Adidas, Under Armour, Nike)* | 19 | 2.0 |
| **Total** | **957** | **100.0** |

To provide an overview, the top reasons for choosing local or/and overseas shops, as well as the top chosen shops / categories are extracted and compiled in Tables 19 and 20 below.

Table 19 illustrates that the common, important factors that led to the choices of local and/or overseas shops were reduced waiting time, affordability and product availability.

Table 19: Top reasons for choices of shops

| **Those who shopped at only local shops** | | | **Those who shopped at only overseas shops** | | | **Those who shopped at both local & overseas shops** | |
|---|---|---|---|---|---|---|---|
| 1 | Reduced waiting time | | 1 | Affordability | | 1 | Reduced waiting time |
| 2 | Affordability | | 2 | Product variety | | 2 | Availability (from overseas) |
| 3 | Good reviews / recommendations | | 3 | Availability | | 3 | Affordability |

Table 20: Top ranked shops / categories

| **Those who shopped at only local shops** | | | **Those who shopped at only overseas shops** | | | **Those who shopped at both local & overseas shops** | |
|---|---|---|---|---|---|---|---|
| 1 | Shopee | | 1 | Fashion & apparel | | 1 | Shopee |
| 2 | Lazada | | 2 | Lifestyle items | | 2 | Taobao |
| 3 | Zalora | | 3 | Amazon | | 3 | Groceries & lifestyle |

Among the respondents who shopped at both local and overseas shops, 61.5 percent (n=405) preferred local shops to overseas ones.

Table 21: Preference for local or overseas stores

| | Frequency | Percent (%) |
|---|---|---|
| Local | 405 | 61.5 |
| Overseas | 254 | 38.5 |
| **Total** | **659** | **100** |

For the 38.5 percent (n=254) who preferred overseas to local stores, they indicated that promotions, variety, unique products and easier-to-use website could make the local stores more appealing.

Table 22: How local stores could be more attractive
(respondents could select multiple answers)

| | Frequency | Percent (%) |
|---|---|---|
| Promotions | 246 | 34.0 |
| More variety of products | 223 | 30.8 |
| Unique products sold locally only | 150 | 20.7 |
| Website that's easier to use | 91 | 12.6 |
| Others: | 14 | 1.9 |
| ○ *Brand ethics / brand loyalty programmes* | *7* | *1.0* |
| ○ *Better customer service* | *3* | *0.4* |
| ○ *Easier exchange and return policies* | *2* | *0.3* |
| ○ *Quality* | *2* | *0.3* |
| **Total** | **724** | **100.0** |

### 4.2.3 Product categories

Based on the data in Table 23 in the next page, food and beverage (F&B) was the top category that the 868 respondents shopped for the first time; i.e., they did not buy F&B items online prior to the circuit breaker.

Respondents defined F&B broadly to include food deliveries, raw ingredients and baking items. Besides being the top category that they shopped online for *the first* time, F&B was also the top category that they shopped *the most*, as shown in Table 24.

Grocery was the second top shopping category. While there was still some preference to buy fresh produce at wet markets, there was a shift to trust the online supply chain.

One interviewee opined that previously, she did not buy groceries online because she had low level of trust. She preferred to check the expiry dates, personally. However, ever since she started to buy grocery online, she has quelled that concern and would continue to shop online. These development of trust and formation of habit are similar to what literature has reflected in the earlier section of 2.3.

It is no surprise that non-edible items such as car parts, hardware tools and electronics recorded the lowest frequency counts, whether as first-time or frequent purchase.

Table 23: Categories that were shopped online for *the first time* (during circuit breaker) (respondents could select multiple answers)

| | **Frequency** | **Percent (%)** |
|---|---|---|
| F&B | 291 | 33.5 |
| Grocery | 253 | 29.1 |
| Lifestyle products | 251 | 28.9 |
| Health & beauty | 232 | 26.7 |
| Educational / entertainment products | 214 | 24.7 |
| Fashion & apparel | 206 | 23.7 |
| Sporting goods | 172 | 19.8 |
| Luxury products *(e.g., jewelry, wallets, card holders, bags)* | 46 | 5.3 |
| Others | 7 | 0.8 |
| ○ *Car parts / hardware tools* | 4 | 0.5 |
| ○ *Electronics* | 3 | 0.3 |

Table 24: Top three purchased categories during circuit breaker

| | **Frequency** | | | **Total** |
|---|---|---|---|---|
| | **#1** | **#2** | **#3** | |
| F&B | 223 | 180 | 111 | 514 |
| Fashion & apparel | 192 | 135 | 135 | 462 |
| Grocery | 153 | 128 | 89 | 370 |
| Health & beauty | 69 | 132 | 151 | 352 |
| Lifestyle products | 54 | 89 | 118 | 261 |
| Educational / entertainment products | 92 | 76 | 83 | 238 |
| Sporting goods | 34 | 67 | 61 | 162 |
| Others *(e.g., baby products, pet products, craft and hobby items)* | 25 | 13 | 20 | 58 |
| Luxury products | 4 | 5 | 19 | 28 |

With regard to the choices of shops and categories, shoppers had a sense of direction; i.e., instead of browsing aimlessly, they shopped with clarity. As shared by the interviewees:

> "I always know what I need and exactly where to get them …"

> "I already know what I want before I start shopping online."

"I know exactly what I want before even entering the website, especially for Shopee."

These findings implied that it may be beneficial for e-retailers to create awareness about their products to attract visits to their websites. This is because consumers seemed to be first and foremost, guided by the item that they intended to purchase.

### 4.2.4 Users of purchased items

Most respondents purchased items for their own use, followed by for their families. These results aligned with the top purchased categories being F&B, grocery and lifestyle items.

Table 25: Users for the top purchased category

| | **Frequency** | **Percent (%)** |
|---|---|---|
| Myself | 573 | 66.0 |
| My family | 474 | 54.6 |
| My friends & others | 83 | 9.6 |

### 4.2.5 Purchase amount

Most respondents (81.2 percent, n=705) spent less than $100 for each online transaction during circuit breaker. Only 2.3 percent (n=20) spent above $500 per transaction. The higher amount transactions were usually for product categories such as education / entertainment, health and beauty, lifestyle and hobby.

Table 26: Average transaction amount for the top purchased category

| | **Frequency** | **Percent (%)** |
|---|---|---|
| Below $50 | 312 | 35.9 |
| $51 - $100 | 393 | 45.3 |
| $101 - $500 | 143 | 16.5 |
| Above $500 | 20 | 2.3 |
| **Total** | 868 | 100.0 |

## 4.3 Online Shopping Experiences

### 4.3.1 Evaluations of experiences during circuit breaker

For this section on online shopping experiences, 23 respondents (2.6 percent) did not make any selected choices. Thus, for a more wholistic perspective, the percentages in Table 27 below were still tabulated using the original sample base of 868 who shopped online.

As mentioned earlier in section 3.1, the questions on shopping experiences utilised a three-point scale ('dissatisfied = 1', 'neutral = 2', 'satisfied = 3'). The median for all the aspects were 3 (i.e., satisfied) except for unique products, exchange / refund and response from customer service department. The mean was between the range of 2 to 3, implying that respondents were generally satisfied with their online shopping experiences during circuit breaker.

Using the mean and frequency counts, the aspects that respondents were most satisfied with included: easy-to-use website (mean = 2.71), variety (mean = 2.66) and availability of products (2.58). All these aspects seemed to be related to shopping convenience.

The aspects that could be enhanced consisted of known delivery time (2.40), exchange / refund (2.34) and response from customer service (2.32). These aspects recorded the highest frequency counts that respondents felt neutral or dissatisfied with.

Table 27: Online shopping experiences during circuit breaker

| **Satisfied ('3')** | | | | **Neutral ('2')** | | | | **Dissatisfied ('1')** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Aspects** | **Frequency** | **Percent (%)** | | **Aspects** | **Frequency** | **Percent (%)** | | **Aspects** | **Frequency** | **Percent (%)** |
| Easy-to-use website (mean=2.71) | 612 | 70.5 | | Cust. svc. response (mean=2.32) | 430 | 49.5 | | Known delivery time (mean=2.40) | 97 | 11.2 |
| Variety of products (mean=2.66) | 596 | 68.7 | | Exchange / refund (mean=2.34) | 425 | 49.0 | | Cust. svc. response (mean=2.32) | 72 | 8.3 |
| Availability of products (mean=2.58) | 557 | 64.2 | | Unique products (mean=2.43) | 422 | 48.6 | | Exchange / refund (mean=2.34) | 67 | 7.7 |
| Order tracking | 502 | 57.8 | | Online security | 379 | 43.7 | | Availability of products | 67 | 7.7 |
| Other users' reviews | 490 | 56.5 | | Other users' reviews | 346 | 39.9 | | Order tracking | 54 | 6.2 |
| Price | 461 | 53.1 | | Price | 342 | 39.4 | | Price | 42 | 4.8 |
| Online security | 453 | 52.2 | | Known delivery time | 311 | 35.8 | | Variety of products | 36 | 4.1 |
| Known delivery time | 437 | 50.3 | | Order tracking | 289 | 33.3 | | Unique products | 28 | 3.2 |
| Unique products | 395 | 45.5 | | Availability of products | 221 | 25.5 | | Easy-to-use website | 15 | 1.7 |
| Exchange / refund | 353 | 40.7 | | Easy-to-use website | 218 | 25.1 | | Online security | 13 | 1.5 |
| Cust. svc. response | 343 | 39.5 | | Variety of products | 213 | 24.5 | | Other users' reviews | 9 | 1.0 |

### 4.3.2 General important aspects for general online experience

Besides evaluating their online shopping experiences during circuit breaker, respondents also indicated the aspects that are generally important to them, with or without circuit breaker.

Table 28: Generally important aspects when shopping online, with or without circuit breaker (respondents could select multiple answers)

| | **Frequency** | **Percent (%)** |
|---|---|---|
| Price | 750 | 86.4 |
| Availability of products | 597 | 68.8 |
| Known delivery time | 545 | 62.8 |
| Variety of products | 521 | 60.0 |
| Reviews from other users | 508 | 58.5 |
| Exchange / refund | 452 | 52.1 |
| Online security | 452 | 52.1 |
| Easy-to-use website | 448 | 51.6 |
| Order tracking systems | 416 | 47.9 |
| Response from customer service | 320 | 36.9 |
| Unique products that are sold only online | 226 | 26.0 |
| Others: | 7 | 0.8 |
| ○ *Member / loyalty benefits* | *4* | *0.5* |
| ○ *Quality* | *2* | *0.2* |
| ○ *Convenience* | *1* | *0.1* |

Price

While price was not specifically highlighted for online experiences during circuit breaker, it became the most important aspect for 'normal' times. It was selected by 86.4 percent (n=750) of respondents Among them are 14.3 percent (n=107) with more than $7,000 monthly income.

The probable reasons why price was not ranked to be very important during circuit breaker might be due to the need for the items and the boredom (shown earlier in Table 7). Those motivators to shop might have possibly reduced the importance of price. However, during 'normal' times when price can be compared easily, it emerged to be the top aspect affecting shopping experience.

After price, the need for convenience was found to be important for online shopping on 'normal' days. This was evident in the highly ranked aspects of availability, known delivery time and variety.

Availability

Availability was picked by 68.8 percent (n=597) of respondents. Interviewees repeatedly disclosed that they would only buy products that they needed or wanted. The opinions about availability were explicit, as illustrated in the following comments:

> "Some days, they have it but some days, they never stock up. So, this is frustrating for me."
>
> "When the product is not available, settling for something else puts me off."
>
> "Product must be available; if not, I won't go back and find it again."
>
> "It it's not available, don't put it on the site."

Known delivery time

This time-related aspect was selected by 62.8 percent (n=545) of respondents. Interviewees' qualitative inputs showed that there was an urgency to receive purchases and start enjoying the use of the items.

The general expectation was that if it is a local shop delivery, then delivery ought to be even quicker. However, the amount of patience to wait could be adjusted according to the price.

> "Delivery time is very important and must be within the timeframe stated. Preferably, I would want to receive products within a week."
>
> "… waiting time of 17 to 21 days, then I won't buy."
>
> "The longer it takes, the higher risk of missing parcels."
>
> "If I paid a cheaper price for something, I can wait a while longer. But If I paid a premium price, I cannot wait."

Variety of products

Up to 60.0 percent (n=521) of respondents derived satisfaction from the range of products or brands that they could find in a single site. A wide assortment seemed to be favoured for the one-stop convenience.

> "When I can choose different things of different designs, that is nice."
>
> "If there is a different range of products … or different brands within the website, I will be more likely to buy more."
>
> "Variety – can see more stuff in shorter time."

Reviews from other users

Up to 58.5 percent (n=508) of respondents indicated that reviews from others are important. 'Others' referred to other shoppers who might be strangers, family members or friends.

> "Even with good online reviews, I usually look for reviews from friends to form my opinion to buy the products."

Whatever the source of reviews, interviewees shared that reviews gave them a sense of security and confidence which in turn influenced their purchase decision and amount.

> "Anything without reviews, I would not buy."

> "If reviews are good, I would spend more."

> "I take reviews seriously …If it goes wrong, I will have to re-purchase or look for an alternative, that is troublesome.

Reviews would be more believable and persuasive if there were real life photos by other shoppers (not just from the retailers), star rating system and written comments, especially by repeat purchasers.

> "No picture means no purchase."

With regard to the evaluation rubrics of reviews, there were varied standards. Some interviewees revealed that there would be no purchase if the rating was below 4, others specified that there must be a certain number of reviewers, from as few as two to as many as more than 100. However, there were also some interviewees who did not place high weightage on reviews.

> "Not so concerned about reviews, as long as I like it."

> "Reviews are only for reference, but not believed totally because they could be written by the company itself."

Exchange / refund

As online shopping precludes trying, 52.1 percent (n=452) of respondents decided that that exchange / refund is important. While some respondents utilised exchange / refund to their advantage, some respondents seemed to view it more as an assurance rather than something that they looked forward to using:

> "Even though the return policies may be good, when we buy something, we want to make sure it comes in good condition so that we don't need refund and exchange."

Online security

Similar to the number of respondents who selected exchange / refund, 52.1 percent (n=452) chose online security to be an aspect that would impact their online shopping experience. Interviewees were conscious and concerned that their personal data and credit card details are input and sometimes even saved in the system.

> "I need to know that they have a recognised, secured system."

> "I need websites that I can trust."

Easy-to-use website

Online user interface plays a role in affecting shopping experience too, as indicated by 51.6 percent (n=448) of respondents. Features that helped in purchase decision-making included sufficient amount of information, clearly stated tabs, sorting and filtering functions, as well as intuitive user interface.

> "If website is too messy, I will just close it."

> "I hate it when it is hard to purchase item and you need to click here and there."

It was stated that the user-friendliness ought to be extended to different devices as a lot of shopping is conducted on mobile phones. It was added that payment modes could be part of the easy-to-use features too.

> "Some websites do not accept Visa payments. Some only accept NETS payment or bank transfers, that makes it difficult for me."

Order tracking system

Online tracking system was important to 47.9 percent (n=416) of respondents. The need to be informed in a correct and timely manner was articulated by an interviewee:

> "I want to know where my things are, especially If I already paid for them. Reminders and notifications are not accurate. Sometimes when it showed that it is delivered, it is not to my home but only to the post office."

Response from customer service

While respondents might have higher tolerance during 'normal' times, the response from customer service will still be important, as indicated by 36.9 percent (n=320) of respondents. The expectation was that for 24/7 online shopping, there ought to be 24/7 customer service to render support, expedite service recovery, and even perform consumer education.

> "I need to know … there are people who are looking out for any mistakes or problems in my purchases."

> "I had trouble with a merchant but Shopee was very neutral and very professional … managed to neutralise the situation to satisfy…"

> "After-sale response is also very important for customer retention, especially if I need to know more about the products."

It was desired that customer service is proactive, and not just responsive when contacted. One stated example was the provision of shipping updates even when shoppers did not ask for them.

<u>Unique products</u>
Only 26.0 percent (n=226) of respondents chose unique products to have an impact on their online shopping experience. This outcome echoed a recurrent comment that "I buy what I need most of the time". Such practical, need-based purchase motivation might explain why unique products were not assessed to be very important.

<u>Others: Quality</u>
Besides the above aspects, quality was also indicated to be an aspect that could influence shopping experience. Interviewees used 'quality' when referring to product standard or delivery reliability.

An interviewee shared two anecdotes on how quality was not followed through in the final phase of delivery:

- There was no phone call to confirm delivery of ceramic wok. The parcel was found on grass patch in front of the house - it was tossed over the gate of private property, when there was a word 'Fragile' on the package.
- A storage disk that cost $40 was thrown (over the gate again) and left on the driveway when it could fit properly into the letterbox. Fortunately, the item was not run over by their car.

## 4.4 Future Online Shopping Behaviours

There were 837 responses to the question about their shopping frequency after circuit breaker ended. Only 9.4 percent (n=79) indicated that they have continued to shop more often. Another 47.8 percent (n=400) indicated no change to their shopping frequency, and 42.8 percent (n=358) responded that they have begun to shop less often.

Table 29: Frequency of shopping after circuit breaker ended on 1 June 2020

| | Frequency | Percent (%) |
|---|---|---|
| More often | 79 | 9.4 |
| No change | 400 | 47.8 |
| Less often | 358 | 42.8 |
| **Total** | **837** | **100** |

The results suggested that while online shopping had increased during circuit breaker, the continuing growth still needs enticements.

Table 30 shows the aspects that could encourage more shopping in the future, among those who shopped and did not shop during circuit breaker.

Table 30: Aspects that could encourage even more shopping in the future
(respondents could select multiple answers)

| **Those who shopped online during circuit breaker** | | | | **Those who did not shop online during circuit breaker** | | |
|---|---|---|---|---|---|---|
| **Aspects** | **Frequency** | **Percent (%)** | | **Aspects** | **Frequency** | **Percent (%)** |
| Lower price | 729 | 74.0 | | Lower price | 87 | 74.4 |
| Loyalty rewards | 447 | 45.4 | | Unique products | 53 | 45.3 |
| Unique products | 440 | 44.7 | | Loyalty rewards | 26 | 22.2 |
| Easier exchange / refund | 365 | 37.1 | | Better customer service when I need it | 24 | 20.5 |
| Better customer service when I need it | 302 | 30.7 | | No, I don't think I'd shop online | 18 | 15.4 |
| Reminders from merchants | 106 | 10.8 | | Training on how to shop online | 15 | 12.8 |
| Others: | 39 | 4.0 | | Others: | 14 | 12.0 |
| ○ *Efficient delivery* | *11* | *1.1* | | ○ *Convenience / necessity* | *5* | *4.3* |
| ○ *Security / reliability* | *8* | *0.8* | | ○ *Nothing in particular* | *3* | *2.6* |
| ○ *Variety / availability of products* | *6* | *0.6* | | ○ *Faster delivery* | *2* | *1.7* |
| ○ *Convenience of purchase* | *4* | *0.4* | | ○ *Promotions (e.g., ads)* | *1* | *0.9* |
| ○ *Vouchers / promotions* | *4* | *0.4* | | ○ *Trustworthiness of retailers* | *1* | *0.9* |
| ○ *Quality* | *2* | *0.2* | | ○ *Non-availability offline* | *1* | *0.9* |

### 4.4.1 Enticements for shoppers to shop more

Lower price

In the earlier section 4.3.1, price was selected to be the most important aspect that could affect online shopping experience. Similarly, lower price was indicated to be most important aspect that could encourage more shopping. Among the respondents who shopped during circuit breaker, the large majority of 74.0 percent (n=742) indicated that they will shop online more if there are lower prices.

Interviewees opined that 10 to 20 percent discount will be attractive enough. Besides reducing the monetary amount, lower price could be substituted or complemented by promotions. Interviewees disclosed that they were attracted by vouchers, cash-back and points system. They would make impulse purchases if there were flash sales, hourly sales or bestseller lists:

> "… very interesting stuff sometimes and I'll just randomly buy …"

However, interviewees have also voiced discerning comments that warrant e-retailers' attention:

> "Promotional items are usually to clear poor-selling products. I want nicer-looking things instead of cheaper things, even if they cost more."

> "If I buy Xiaomi vacuum cleaner, I can get it cheaper but no warranty … I will pay more to get it from local agent."

Thus, it seemed that while lower price is favoured, there are certain standards that shoppers would not compromise.

In the earlier section 2.2.1, it was indicated that consumers generally adjusted their purchase behaviour based on their beliefs about future promotional offers (Erdem, Imai, & Keane, 2003; Sun, Neslin, & Srinivasan, 2003). An interviewee actually cautioned about developing such promotion-driven purchase behaviour in consumers:

> "If you do it too often, people learn the behaviour and they'll just wait for this sale, for the savings … pros and cons."

<u>Loyalty rewards</u>

A considerable 45.4 percent (n=447) of respondents indicated that loyalty perks such as early preview, subscription plan or lower prices will make them shop more. Such perks seemed to be capable of increasing the feel-good index towards shopper retention:

> "… makes me feel more special to make my purchases."

> "It feels good to be rewarded for your money spent."

While shoppers looked forward to perks, they still exercised judgment about the design of loyalty programme. The quote below reflected the discernment that shoppers had:

> "Shopee's gamification (watering the plants daily) is one way to engage users but I feel it's very insincere …"

Unique products

While unique products were not rated to be highly important towards shopping experience, they could influence 44.7 percent (n=440) of respondents to shop more. Interviewees clarified that this aspect will be especially effective if the products are limited editions, cannot be found in physical stores and e-retailers take the time to tell the shoppers more.

Easier exchange / refund

A total of 37.1 percent (n=365) of respondents wanted easy and easier exchange / refund, particularly with regard to the procedure and the locations. The efficiency could increase their shopping frequency:

> "Makes it an easier process to shop. Makes me more willing to shop."

Better customer service when it is needed

While only one interviewee shared that satisfaction with current customer service standard will not make him buy more, another 30.7 percent (n=302) of respondents thought otherwise.

They pointed out that customer service is more than just recovery when there are unpleasant incidents; it could be a tool to improve the levels of support and assurance given to shoppers:

> "Better customer service is important … I can speak to someone who can give me the confidence to shop with them and the platform that I use."

Reminders from merchants

A small group of respondents (10.8 percent, n=106) indicated that reminders from merchants will be useful, especially for busy consumers.

> "Sometimes, I forget that I want the particular item and notifications from merchants … browse the item again."

> " …if they send to my email informing me of a sale that's going on, I will go and browse and there's a chance I will buy."

They also welcomed notifications on new products or promotions, especially if the communicated is clear and direct:

> "I want reminders from merchants too … but I don't like it to be spams on my phone. It has to be clear cut, if there is a product category that has a discount, then should just state it upfront."

Others

The remaining 4.0 percent (n=39) of respondents suggested a mixture of other aspects (such as variety, availability, convenience) that could lead to more shopping.

For example, one interviewee opined that delivery options could be expanded. She elaborated that fixed delivery time slots are not user-friendly for single-person household because there is no one at home to receive the purchases.

Another interviewee shared about the lack of security / reliability. She recounted that her (quite old) father recently started online shopping. He bought a couple of watches that he thought were authentic, but they turned out to be fake. Based that one experience, he did not want to shop online anymore.

### 4.4.2 Enticements for non-shoppers to shop more

Even for those who did not shop during circuit breaker, the same three aspects (i.e., lower price, loyalty rewards and unique products) could also be effective to make them shop online more.

In addition, 12.8 percent (n=15) among the non-shoppers seemed open to adopting online shopping if there is training. Using cross-tabulations, it was found that this group of 15 respondents consisted of 53.3 percent (n=8) who are above 50 years old.

There were 15.4 percent (n=18) who asserted that they do not think they would shop online. Cross-tabulation results showed that this group consisted of more females (55.6 percent, n=10) and those who are above 50 years old (55.6 percent, n=10).

Unexpectedly, this group also included respondents who are below 30 years old (16.7 percent, n=3).

### 4.4.3 Wish list for online shopping

Generally, respondents did not have new wish list items, other than wanting more product options in the various categories in Table 31 on the next page. However, there were 40 indications that were related to platform improvements which signified the need to review and enhance website navigability.

Table 31: Wish list for online shopping

| | **Frequency** | **Percent (%)** |
|---|---|---|
| None | 259 | 50.4 |
| Fashion & apparel | 44 | 8.6 |
| Platform improvements *(e.g. user interface, filter options, delivery tracking)* | 40 | 7.8 |
| Tech products / electronics | 39 | 7.6 |
| F&B | 31 | 6.0 |
| Hobby & lifestyle | 30 | 5.8 |
| Health & beauty | 27 | 5.3 |
| Sporting goods | 21 | 4.1 |
| Others *(e.g., pet food & accessories, sustainable, products)* | 10 | 1.9 |
| Services *(e.g., ad-hoc house cleaning, banking, mall concierge shopping)* | 8 | 1.6 |
| Automobile *(e.g., accessories)* | 5 | 1.0 |

# 5 DISCUSSION

In this final section, the literature and the research outcomes will be integrated in reference to the three research questions that were outlined earlier in section 1.2; viz.:

a) What were the online purchase behaviours during circuit breaker period?

Similar to past studies, this research showed that gender and age did influence online shopping behaviour. However, unlike majority of studies that indicated the positive impact of income on online purchasing, this study suggested that there were no significant differences among the different income groups, with regard to the tendency to shop.

Reflecting the same pattern in other countries, the amount of online shopping frequency has increased, especially for F&B products. While more shopping was done as compared to before circuit breaker, the frequency was not very high, with the majority (70.9 percent, n=626) shopping once a week, or once in a few weeks.

An additional insight from this study (which was not found in other reviewed studies) was the preference for local shops, with the most dominant reason being the reduced waiting time.

b) <u>How were the online purchase experiences during circuit breaker period?</u>
In general, respondents were satisfied with the several aspects there were highlighted in literature and listed in section 2.2; namely:

- Products (variety, quality, availability, price);
- Website (navigability, trustworthy quality);
- Delivery (e-fulfilment);
- After-sales service (including management of returns and customer service).

Among all the varied aspects, local consumers placed the highest emphasis on price, followed by product availability, known delivery time, variety, other users' reviews, etc.

c) <u>What are consumers' intended behaviours?</u>
Linked to the high emphasis on price, this study showed that lower price will be the biggest draw for more future purchases. This applies to both those who shopped and did not shop during circuit breaker period.

Besides product variety that was often mentioned in past research, this study found that consumers could also be influenced by unique products that are limited in number and which cannot be found in physical stores.

## 6 MANAGERIAL IMPLICATIONS / RECOMMEMDATIONS

The research outcome of this study yielded three recommendations for consideration.

Firstly, e-retailers may want to focus on and grow the segment of older shoppers. While it might be common to associate online shopping with younger age, there has been optimism that older adults have the technological capability and the money (Saarenpää & Tarja, 2005; Hough & Kobylanski, 2009; Levy, 2002; Lian & Yen, 2014). In Singapore, an increasingly aging society, old shoppers do present a promising segment to tap on. This study has shown that older non-shoppers have expressed willingness to adopt online shopping if they receive training.

Secondly, the consumers have a certain affiliation with, and inherent trust in local shops. Therefore, in addition to doing well in the main operational key aspects (such as unique products, price, delivery and customer service), retailers could further harness on the Singapore label to create a competitive edge over overseas shops.

Last but not least, the findings suggested that local consumers do possess a sense of judgment with regard to the true value of promotions or even the authenticity of reviews. Thus, integrity or 'sincerity' (as mentioned by one interviewee) still ought to be maintained in online offerings.

## 7 LIMITATIONS AND FUTURE RESEARCH

There are a couple of limitations that could become possible topics for future research in this subject area. Firstly, as mentioned in section 3.1, the selection criteria of participants were hinged on their IT skills and English language ability to take part in the online questionnaire. That implied that consumers who do not speak English were excluded from this study.

While it may be defended that Singapore's literacy rate among residents aged 15 years old and above was 97.5 percent in 2019 (Singapore Department of Statistics, 2020), there is leeway for future research to focus on different segments of population, including seniors who are likely to have lower IT and English competencies. Afterall, the Singapore government is working on enhancing the seniors' online accessibility and familiarity, including making online shopping more relatable to them (Infocomm Media Development Authority, 2020).

Secondly, as outlined in section 1.1, this study was undertaken to fill an information gap as retailers had to swiftly launch or augment online commerce in the wake of the pandemic. Thus, the product categories were examined collectively, without differentiation. Future research could focus on distinctive product categories (such as utilitarian or hedonic in nature) to produce more specific findings for managerial use.

## 8 CONCLUDING REMARKS

Covid-19 has changed how consumers spend money, and the change is probably going to last forever. Hence, it is necessary for businesses to be adaptable (Sample, 2020).

Retailers are reminded to stop expecting things to return to 'normal'. Instead of adopting a wait-and-see mode, it is now essential to elevate consumers' online shopping to the next level. Because consumers will no longer accept sub-par standard in the way that they might have during the pre-pandemic days (Yohn, 2020). Thus, it is all the more imperative to know the online consumers (their behaviours, experiences and future patterns) as part of the retail improvement journey.

## REFERENCES

Ahn, T., Ryu, S., & Han, I. (2004). The impact of the online and offline features on the user acceptance of Internet shopping malls. *Electronic Commerce Research and Applications*, *3*(4), 405-420.

Akman, I., & Rehan, M. (2014) Online purchase behaviour among professionals: A socio-demographic perspective for Turkey. *Economic Research Ekonomska Istraživanja*, *27*(1), 689-699.

Al-Debei, M. M., Akroush, M.N., & Ashouri, M. I. (2015). Consumer attitudes towards online shopping: The effects of trust, perceived benefits, and perceived web quality. *Internet Research*, *25*(5), 707-733.

Alba, J., Lynch, J., Weitz, B. and Janiszewski, C. (1997), Interactive home shopping: Consumer, retailer, and manufacturer incentives to participate in electronic marketplaces, *Journal of Marketing*, *61*(3), 38-53.

Andersen, A. L., Hansen, E. T., Johannesen, N., & Sheridan, A. (2020). Consumer responses to the Covid-19 crisis: Evidence from bank account transaction data (May 25). Available at SSRN: https://ssrn.com/abstract=3609814.

Bamfield, J., 2013. *Retail Futures 2018: Shop Numbers, Online and The High Street*. Centre for Retail Research Limited.

Basan, H. (2010). Exploring gender differences in online shopping attitude. *Computers in Human Behavior*, *26*(4), 597-601.

Bart, Y., Shankar, V., Sultan, F., & Urban, G. L. (2005), Are the drivers and role of online trust the same for all web sites and consumers? A large-scale exploratory empirical study, *Journal of Marketing*, *69*(4), 133-51.

Bhatt, S., & Bhatt, A. (2012). Factors influencing online shopping: An empirical study in Ahmedabad. *The IUP Journal of Marketing Management*, *11*(4), 51-65.

Beneke, J., Scheffer, M., & Du, W. (2010). Beyond price – An exploration into the factors that drive young adults to purchase online. *International Journal of Marketing Studies, 2*, 212-222.

Bhatnagar, A., & Ghose, S. (2004). Online information search termination patterns across product categories and consumer demographics. *Journal of Retailing, 80*, 221-228.

Bower, A. B., & Maxham, J. G. III. (2012). Return shipping policies of online retailers: Normative assumptions and the long-term consequence of fee and free returns. *Journal of Marketing*, *76*, 110-124.

Branding in Asia. (2017). Breaking down the demographics of Singapore's online shoppers. Retrieved from www.brandinginasia.com/breaking-demographics-singapores-online-shoppers/

Breugelmans, E., Campo, K., & Gijsbrechts, E. (2006). Opportunities for active stock-out management in online stores: the impact of the stock-out policy on online stock-out reactions. *Journal of Retailing*, *82*, 215-228.

Bridges, E., & Florsheim, R. (2008). Hedonic and utilitarian shopping goals: The online experience. *Journal of Business Research*, *61*(4), 309-314.

BrightLocals. (2020). Local consumer review survey. Retrieved from https://www.brightlocal.com/research/local-consumer-review-survey/

Brynjolfsson, E., Hu, Y. J., & Rahman, M. (2009). Battle of the retail channels: How roduct selection and geography drive cross-channel competition. *Management Science*, *55*(11), 1755-1765.

Brynjolfsson, E., & Smith, M. D. (2000). Frictionless commerce? A comparison of internet and conventional retailers. *Management Science*, *46*(4), 563-585.

Cai, S., & Xu, Y. (2011). Designing not just for pleasure: Effects of web site aesthetics on consumer shopping value. *International Journal of Electronic Commerce*, *15*(4), 159-188.

Cao, L., & Li, L.S. (2015). The impact of cross-channel integration on retailers' sales growth. *Journal of Retailing*, *91*(2), 1-19.

Cao, Y., Gruca, T. S., & Klemz, B. R. (2003). Internet pricing, price satisfaction, and customer satisfaction. *International Journal of Electronic Commerce*, *8*, 31-50.

Charlebois, S. (2020). Why COVID-19 will change Canadian grocery industry forever: Expert. *Retail Insider*. Retrieved from https://www.retail-insider.com.

Chaudary, M. W. T., Ahmed, F., Gill, M. S., & Rizwan, M. (2014). The determinants of purchase intention of consumers towards counterfeit shoes in Pakistan. *Journal of Public Administration and Governance*, *4*(3), 20-38.

Chen, H., Wu, C., Tsai, S., Yu, J., Wang, J., & Zheng, Y. (2016). Exploring key factors in online shopping with a hybrid model. *SpringerPlus*, *5*, article number: 2046.

Chen, Z., & Dubinsky, A. J. (2003). A conceptual model of perceived customer value in Ecommerce: a preliminary investigation. *Psychology and Marketing*, *20*(4), 323-347.

Cheung, C. M. K., Chan, G. W. W., & Limayem, M. A. (2005). Critical review of online consumer behavior: Empirical research. *Journal of Electronic Commerce in Organizations*, *3*(1), 1-19.

Chia, C. L. (2003). A critical appraisal of customer satisfaction and e-commerce. *Managerial Accounting Journal*, *18*(3), 202-212.

Childers, T.L., Carr, C.L., Peck, J. and Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behaviour. *Journal of Retailing*, *77*(4), 511-35.

Chintagunta, P. K., Chu, J., & Cebollada, J. (2012). Quantifying transaction costs in online/ offline grocery channel choice. *Marketing Science*, *31*(1), 96-114.

Cho, Y.K. (2015). Creating customer repurchase intention in Internet retailing: the effects of multiple service events and product type. *Journal of Retailing and Consumer Services*, *22*, 213-222.

Cho, S. E. (2010). Perceived risks and customer needs of geographical accessibility in electronic commerce. *Electronic Commerce Research and Applications*, *9*(6), 495-506.

Choo, Y. T. (2020). F&B, retail firms may get up to $10k to go digital. *The Straits Times*, retrieved from www.straitstimes.com.

Chung, J. E., Park, N., Wang, H., Fulk, J., & Mclaughlin, M. (2010). Age differences in perceptions of online community participation among non-users: An extension of the technology acceptance model. *Computers in Human Behavior*, *26*(6), 1674-1684.

Collier, J. E., & Bienstock, C. C. (2006). Measuring service quality in e-retailing. *Journal of Service Research*, *8*, 260– 275.

Dadzie, K.Q. and Winston, E. (2007). Consumer response to stock-out in the online supply chain. *International Journal of Physical Distribution & Logistics Management*, 37,19-42.

Dai, B. (2007, December 17). *The impact of online shopping experience on risk and online purchase intentions: the moderating role of product category and gender*. A thesis submitted to the Graduate Faculty of Auburn University in partial fulfillment of the requirements for the Degree of Master of Science Auburn, Alabama.

Dailey, L. (2004). Navigational web atmospherics: explaining the influence of restrictive navigation cues. *Journal of Business Research*, *57*(7), 795-803.

De Koster, R.B.M. (2003). Distribution strategies for online retailers*. IEEE Transactions on Engineering Management*, *50*, 448-457.

Deloitte. (2020). Understanding consumer shopping behavior. Retrieved from ww2.deloitte.com.

Dittmar, H., Long, K., & Meek, K., Buying on the internet: gender differences in on-line and conventional buying motivation. *Sex Roles*, *50*, 423-444.

Donnelly, C., & Scaff, R. (2013). Who are the millennial shoppers? And what do they really want? Retrieved from www.accenture.com.

Donthu, N., & Gustafsson, A. (2020). Effects of Covid-19 on business and research. *Journal of Business Research*, *117*, 284-289.

Enterprise Singapore. (2020). Retrieved from www.enterprisesg.gov.sg.

Erdem, T., Imai, S., & Keane, M. P. (2003). A model of consumer brand and quantity choice dynamics under price uncertainty, *Quantitative Marketing and Economics*, *1*(1), 5-64.

Eroglu, S. A., Macleit, K.A., & Davis, L.M. (2003). Empirical testing of a model of online store atmospherics and shopper responses. *Psychology and Marketing*, *20*(2), 139-150.

Esper, T. L., Jensen, T. D., Turnipseed, F. L., & Burton, S. (2003). The last mile: an examination of effects of online retail delivery strategies on consumers. *Journal of Business Logistics*, *24*, 177-203.

Farag, S., Krizek, K. J., & Dijst, M. (2003). Exploring the use of e-shopping and its impact on personal travel behaviour in the Netherlands. *Transportation Research Record, 18*, 47-54.

Farag, S., Krizek, K. J., & Dijst, M. (2006). E-Shopping and its relationship with in-store shopping: Empirical evidence from the Netherlands and the USA. *Transport Reviews*, *26*, 43.

Fisher, M., Gallino, S., & Xu, J. (2016). The value of rapid delivery in online retailing. Available at SSRN. doi:10.13140/RG.2.2.17868.62080.

Fogg, B. J., Kameda, T., Boyd, J., Marshall, J., Sethi, R., Sockol, M. & Trowbridge, T. (2002). *Web credibility study 2002: Investigating what makes Web sites credible today.* Stanford: Persuasive Technology Lab, Stanford University

Fortin, D. R., Dholakia, R.R., & Dholakia, N. (2002). Introduction to special issue: Emerging issues in electronic marketing: thinking outside the square. *Journal of Business Research*, *55*(8), 623-627.

Gefen, D., Benbasat, I., & Pavlou, P. (2008). A research agenda for trust in online environments. *Journal of Management Information Systems*, *24*(4), 275-286.

Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: an integrated model. *MIS Quarterly*, *27*(1), 51-90.

Gianna, A., & Lala, F. (2014). Innovation and technology acceptance model (TAM): A theoretical approach. *Romanian Journal of Marketing*, 59-66.

Goode, M. M. H. & Harris, L. C. (2007). Online behavioural intentions: An empirical investigation of antecedents and moderators. *European Journal of Marketing*, *41*(5/6), 512-536.

Gonzalez-Benito, O., & Martos-Partal, M. (2012). Role of retailer positioning and product category on the relationship between store brand consumption and store loyalty. *Journal of Retailing*, *88*(2), 236-249.

Gounaris, S., & Dimitriadis, S., 2003. Assessing service quality on the web: evidence from business to consumers portals. *Journal of Services Marketing*, *17*(5), 529-548.

Gregg, D. G., & Walczak, S. (2010) The relationship between website quality, trust and price premiums at online auctions. *Electronic Commerce Research*, *10*(1), 1-25.

Griffis, S. E., Rao, S., Goldsby, T. J., & Niranjan, T. T. (2012). The customer consequences of returns in online retailing: an empirical analysis. *Journal of Operations Management*, *30*, 282– 294.

Griffith, D.A., & Krampf, R. F. (1998). An examination of the Web based strategies of the top 100 U.S. retailers. *Journal of Marketing Science Theory and Practice*, *6*(3), 12-23.

Ha, S., & Stoel, L. (2009) Consumer e-shopping acceptance: antecedents in a technology acceptance model. *Journal of Business Research*, *62*(5), 565-571.

Hagel, J., & Armstrong, A.G. (1997). *Net Gain: Expanding Markets Through Virtual Communities*. Boston, MA: Harvard Business School Press.

Heim, G. R., & Sinha, K. K. (2001). Operational drivers of customer loyalty in electronic retailing: an empirical analysis of electronic food retailers. *Manufacturing & Service Operations Management*, *3*, 264-271.

Hernandez-Ortega, B., Jimenez-Martinez, J., & Martin-DeHoyos, M. J. (2008). Purchasing behaviour differences between potential, new and experienced e-customers: Analysis of e-purchase behaviour. *Internet Research*, *18*(3), 248-265.

Holmes, T. E. (2019, April 22). Survey: Men outpacing women in online, offline shopping. Retrieved from https://www.valuepenguin.com/

Hough, M., & Kobylanski, A. (2009). Increasing elder consumer interactions with information technology. *Journal of Consumer Marketing*, *26*(1), 39-48.

Huang, M. (2003). Designing website attributes to induce experiential encounters. *Computers in Human Behavior*, *19*, 425–442.

Huang, M., Backman, S.J., & Backman, K. F. (2012). Exploring the impacts of involvement and flow experiences in Second Life on people’s travel intentions. *Journal of Hospitality and Tourism Technology*, 3(1), 4-23.

Hwang, W., Jung, H. S., & Salvendy, G. (2006). Internationalisation of e-commerce: A comparison of online shopping preferences among Korean, Turkish and US populations. *Behaviour & Information Technology, 25*, 3-18.

Ilsever, J., Cyr, D., & Parent, M. (2007). Extending models of flow and e-loyalty. *Journal of Information Science & Technology*, *4*(2), 3-22.

Infocomm Media Development Authority. (2020). Retrieved from www.imda.gov.sg.

Jackson, V., Stoel, L., & Brantley, A. (2011).Mall attributes and shopping value: Differences by gender and generational cohort. *Journal of Retailing and Consumer Services*, *18*(1), 1-9.

Janda, S., Trocchia, P. J., & Gwinner, K. P. (2002). Consumer perceptions of Internet retail service quality. *International Journal of Service Industry Management*, 13, 412-414.

Jiang, P., & Rosenbloom, B. (2005). Customer intention to return online: Price perception, attribute-level performance, and satisfaction unfolding over time. *European Journal of Marketing*, *39*(1/2), 150-174.

Jing, X., & Lewis, M. (2011). Stockouts in online retailing. *Journal of Marketing Research*, *48*, 342-354.

Jones, J. M., & Vijayasarathy, L. R. (1998). Internet consumer catalog shopping: Findings from an exploratory study and directions for future research. *Internet Research*, *8*(4), 322-330.

Kawaf, F. & Istanbulluoglu, D. (2019). Online fashion shopping paradox: the role of customer reviews and Facebook marketing. *Journal of Retail and Consumer Services*, *48*(C), 144-153.

Khan, U., & Dhar, R. (2006). Licensing effect in consumer choice. *Journal of Marketing Research, 43* (May), 259-266.

Khare, A., & Rakesh, S. (2011), Antecedents of online shopping behavior in India: An examination. *Journal of Internet Commerce*, *10*(4), 227-244.

Khawaja, S., Varun, G., & Hwang, Y. (2005). The relationship of e-commerce competence to customer value and firm performance: An empirical investigation. *Journal of Management Information Systems, 22*(1), 223-256.

Kim, M., & Lennon, S. J. (2011). Consumer response to online apparel stockouts. *Psychology & Marketing*, *28*, 115-144.

Kim, H. W., Xu, Y., & Gupta, S. (2012) Which is more important in Internet shopping, perceived price or trust? *Electronic Commerce Research and Applications*, *11*(3), 241-252.

Koyuncu, C., & Lien, D. (2003). E-commerce and consumer's purchasing behaviour. *Applied Economics*, *35,* 721-726.

Lee, J. M., & Rha, J. Y. (2016). Personalization–privacy paradox and consumer conflict with the use of location-based mobile commerce. *Computers in Human Behavior*, *63,* 453-462.

Lee, K. S., & Tan, S. J. (2003), E-retailing versus physical retailing: A theoretical model and empirical test of consumer choice. *Journal of Business Research*, *56*(11), 877-85.

Lee, M. K. O., & Turban, E. (2001). A trust model for consumer internet shopping. *International Journal of Electronic Commerce*, *6*(1), 75-91.

Levy, K. (2002). Overcoming the digital divide. Panel discussion: E-government and citizen-centered government round table. Retrieved from: http://www.epa.gov/customerservice/2002conference/levy.pdf

Li, Y., Xu, L., & Li, D. (2013). Examining relationships between the return policy, product quality, and pricing strategy in online direct selling. *International Journal of Production Economics*, *144*, 451– 460.

Lian, J., & Yen, D. C. (2014). Online shopping drivers and barriers for older adults: Age and gender differences. *Computers in Human Behavior*, *37,* 133-143

Liao, C., Palvia, P., & Lin, H. N. (2010). Stage antecedents of consumer online buying behavior. *Electronic Markets*, *20*, 53-65.

Lightner, N. J. (2003). What users want in e-commerce design: Effects of age, education and income. *Ergonomics*, *46*, 153-168.

Lightner, N. J., Yenisey, M. M., & Ozok, A. A. (2002). Shopping behaviour and preferences in e-commerce of Turkish and American University students: Implications from cross-cultural design. *Behaviour & Information Technology*, *21*, 373-385.

Lim, F., (2019, Dec 24). How technology is leading millennials away from brick and mortar stores. *Business Times*. Retrieved from https://www.businesstimes.com.sg

Lissita, S., & Kol, O. (2016). Generation X vs. Generation Y – A decade of online shopping*. Journal of Retailing and Consumer Services*, *31*, 304-312.

Liu, C., & Arnett, K. P. (2000), Exploring the factors associated with Web site success in the context of electronic commerce. *Information & Management*, *38*(1),23-33.

Lummus, R. R., & Vokurka, R.J. (2002). Making the right e-fulfilment decision. *Production and Inventory Management Journal*, *43*, 50-55.

Luo, X. M., & Bhattacharya, C. B. (2006). Corporate social responsibility, customer satisfaction and market value. *Journal of Marketing*, *70*, 1-18.

Mahapatra, L. (2013, Jan 11). What consumers will and won't buy online. *Business Insider*. Retrieved from www.businessinsider.com.

Mallpragada, G., Chandukala, S. R., & Liu, Q. (2016). Exploring the effects of "what" (product) and "where" (website) characteristics on online shopping behavior. *Journal of Marketing*, *80*(2), 21-38.

Massad, V. J., & Berardelli, K. (2016). The roles of bounded rationality and ethical self-efficacy in online shopping orientation. *Academy of Marketing Studies Journal*, *20*(3), 26-37.

Mascarenhas, O. A., Leventhal, R. C., Kesavan, R., & Bernacchi, M. (2006). Lasting customer loyalty: A total customer experience approach. *Journal of Consumer Marketing, 23*(7), 397-405.

Mathwick, C. (2002). Understanding the online consumer: a typology of online relational norms and behavior, *Journal of Interactive Marketing*, *16*(1), 40-55.

Mehrabian, A., & Russell, J. A. (1974). *An Approach to Environmental Psychology*. Cambridge, MA: MIT Press.

Merrilees, B., & Fry, M. (2002). Corporate branding: a framework for e-retailers. *Corporate Reputation Review*, *5*(2/3), 213-227.

Meyer, C., & Schwager, A. (2007). Understanding customer experience. *Harvard Business Review*, *85*(2), 116 - 26.

Mintel. (2015). Nearly 70% of consumers rely on online reviews before making a purchase. Retrieved from https://consumerist.com/2015/06/03/nearly-70-of-consumers-rely-on-online-reviews-before-making-a-purchase/

Mollenkopf, D. A., Rabinovich, E., Laseter, T. M., & Boyer, K. K. (2007). Managing internet product returns: a focus on effective service operations. *Decision Sciences*, *38*, 215-250.

Moorman, C., Zaltman, G., & Deshpande. R. (1992). Relationships between providers and users of market research: The dynamics of trust within and between organizations. *Journal of Marketing Research*, *29*(August), 314-329.

Morning Consult (2020). Retrieved from https://morningconsult.com/wp-content/uploads/2020/03/200394_crosstabs_CORONAVIRUS_CONTENT_Adults_v4_JB-1.pdf

Ng, H. (2020, May 25). How covid-19 is changing what Singaporeans shop for online. Retrieved from https://www.straitstimes.com/singapore/covid-shopping

Nielsen (2020). Covid-19: Entering a new norm in consumer behaviours. Retrieved from www.nielsen.com.

Nisar, T. M., & Prabhakar, G. (2017). What factors determine e-satisfaction and consumer spending in e-commerce retailing? *Journal of Retailing and Consumer Services*, *39*, 135-144.

Nwaizugbo, I. C., & Ifeanyichukwu, C. D. (2016). Understanding consumer behaviour towards online shopping: A study of online shoppers in Anambra State. *International Journal of Sales, Retailing and Marketing*, *5*(2), 28-37.

Obal, M., & Kunz, W. (2013). Trust development in e-services: A cohort analysis of millennials and baby boomers. *Journal of Service Management*, *24*(1), 45-63.

Otim, S., & Grover, V. (2006). An empirical study on web-based services and customer loyalty. *European Journal of Information Systems*, *15*, 527– 542.

Ozili, P. K. & Arun, T. (2020). Spillover of Covid-19: Impact on the global. Available at SSRN: https://ssrn.com/abstract=3562570

Pandey, S., & Chawla, D. (2018). Online customer experience in clothing e-retail: Exploring OCE dimensions and their impact on satisfaction and loyalty. Does gender matter? *International Journal of Retail & Distribution Management*, *46*(3), 323-346.

Pappas, I. O., Pateli, A. G., Giannakos, M. N., & Chrissikopoulos, V. (2014). Moderating effects of online shopping experience on customer satisfaction and repurchase intentions. *International Journal of Retail & Distribution Management*, *42*(3), 187-204.

Parasuraman, A., & Grewal, D. (2000). The impact of technology on the quality-value-loyalty chain: A research agenda. *Journal of the Academy of Marketing Science*, *28*(1), 168-178

Park, Y. A., Gretzel, U., & Sirakaya-Turk, E. (2007). Measuring web site quality for online travel agencies. *Journal of Travel & Tourism Marketing*, *23*, 15-30.

Perez, S. (2020, March 17). Grocery delivery apps see record downloads amid coronavirus outbreak. Retrieved from https://techcrunch.com/2020/03/16/grocery-delivery-apps-see-record-downloads-amid-coronavirus-outbreak/

Prahalad, C. K., & Hamel, G. (1990). The core competencies of the corporation. *Harvard Business Review, 68*(3), 79-91.

Punj, G. (2012). Income effects on relative importance of two online purchase goals: Saving time versus saving money? *Journal of Business Research, 65*(5), 634-640.

Quelch, J. A., & Klein, L. R. 91996). The internet and international marketing. *MIT Sloan Management Review*, 1-23.

Rao, S., Griffis, S. E, & Goldsby, T.J. (2011). Failure to deliver? Linking online order fulfillment glitches with future purchase behavior. *Journal of Operations Management*, *29*, 692– 703.

Richard, M. O., & Chandra, R. (2005). A model of consumer web navigational behavior: Conceptual development and application. *Journal of Business Research*, *58*, 1019-1029.

Richards, T. J., & Rickard, B. (2020). Covid-19 impact on fruit and vegetable markets. *Canadian Journal of Agricultural Economics*, *18*(10), 1-6.

Richins, M. L. (2013), When wanting is better than having: Materialism, transformation expectations, and product-evoked emotions in the purchase process. *Journal of Consumer Research, 40*(1), 1-18.

Saarenpää, T., & Tarja, T. (2005). *Empirical samples of IS studies on e-commerce consumers*. Retrieved from http://www.hia.no/iris28/Docs/IRIS2028-1059.pdf.

Sample, B. (2020, August 23). It's a Scary New World for Retail and Consumer Spending. *Bloomberg*. Retrieved from ttps://www.bloomberg.com/opinion/articles/2020-08-23/covid-19-retail-consumer-spending-in-a-scary-new-world-ke71hxqu

Savoie, M. J., & Raisinghani, M.S. (1999). Identifying future trends in information technology. *Industrial Management and Data Systems*, *99*(6), 247-250.

Schewe, C. D., Debevec, K., Madden, T. J., Diamond, W. D., Parment, A., & Murphy, A. (2013). If you've seen one, you've seen them all. Are young millennials the same worldwide? *Journal of International Consumer Marketing*, *25*(1), 3-15.

Shankar, V., Smith, A. K., & Rangaswamy, A. (2003). Customer satisfaction and loyalty in online and offline environments. *International Journal of Research in Marketing*, *20*(2), 153-175.

Shapiro, C., & Varian, H. R. (1999). *Information Rules: A Strategic Guide to the Network Economy.* Boston, Massachusetts: Harvard Business School Press.

Sharma, A. (2016). Online Retailers Should Care More About the Post-Purchase Experience. *Harvard Business Review*. Retrieved from https://hbr.org/2016/05/online-retailers-should-care-more-about-the-post-purchase-experience

Shenkman, B. N., & Jonsson, F. U. (2000) Aesthetics and preferences of Web pages, *Behaviour and Information Technology, 19*(5), 367-377.

Shiu, E. C., & Dawson, J. A. (2002). Cross-national consumer segmentation of Internet shopping for Britain and Taiwan. *The Service Industries Journal*, *22*, 147–166.

Sim, L. L., & Koi, S. M. (2002). Singapore's Internet shoppers and their impact on traditional shopping patterns. *Journal of Retailing and Consumer Services*, *9*, 115.

Singapore Department of Statistics. (2020). Retrieved from www.singstat.gov.sg.

Statista. (2015). Statistics and Facts about E-commerce in the United States. Available on http://www.statista.com/topics/2443/us-ecommerce/

Statista. (2020). Number of digital buyers worldwide. Retrieved from www.statista.com.

Sun, B., Neslin, S., & Srinivasan, K. (2003). Measuring the impact of promotions on promotions on brand switching when consumers are forward looking. *Journal of Marketing Research*, *40*(November), 389-405.

Swaminathan, V., Lepkowska-White, E., & Rao, B. P. (1999). Browsers or buyers in cyberspace? An investigation of factors influencing electronic exchange. *Journal of Computer-mediated Communication*, *5*(2). https://doi.org/10.1111/j.1083-6101.1999.tb00335.x,

Synthesio. (2020). Importance of customer reviews for online marketing. Retrieved from https://www.synthesio.com/blog/importance-of-customer-reviews/

Tauber, E. M. (1972). Why do people shop? *Journal of Marketing*, *36*(October), 46-59.

Tan, S. (2020, May 5). Singapore retail sales plunge 13.3% in March, biggest drop in 22 years, on Covid-19 curbs. *The Straits Times*, retrieved from www.straitstimes.com.

Tan, S. (2020, May 25). Online shopping trend set to stay after curbs ease, say analysts. *The Straits Times*, Retrieved from www.straitstimes.com.

Teo, T. S. H., & Lim, V. K. G. (2004). Gender differences in Internet usage and task preferences. *Behaviour and Information Technology*, *19*, 283–295.

Thirumalai, S., & Sinha, K. K. (2005). Customer satisfaction with order fulfillment in retail supply chains: implications of product type in electronic B2C transactions. *Journal of Operations Management*, *23*, 291-303.

Vakulenko, Y., Shams, P., Hellström, D., & Hjort, K. (2019). Online retail experience and customer satisfaction: The mediating role of last mile delivery. *The International Review of Retail, Distribution and Consumer Research*, *29*(3), 306-320.

Wang, H., Du, R., & Olsen, T. (2018). Feedback mechanisms and consumer satisfaction, trust and repurchase intention in online retail. *Information Systems Management*, *35*(3), 201-219.

Weisberg, T., Te'eni, D., & Arman, L. (2011). Past purchase and intention to purchase in e-commerce: The mediation of social presence and trust. *Internet Research*, *21*(1), 82-96.

Williams, A. (2020, May 27). Carousell offering help for heartland retailers to go online. *The Straits Times*, retrieved from www.straitstimes.com.

Williams, D. E. (2009). The evolution of e-tailing. *The International Review of Retail, Distribution and Consumer Research*, *19*(3), 219-249.

Yen, C. H., & Lu, H. P. (2008). Effects of e-service quality on loyalty intention: an empirical study in online auction. *Managing Service Quality*, 18(2), 127-146.

Yeo, V. C. S., & Goh, S., & Rezaei, S. (2017). Consumer experiences, attitude and behavioral intention toward online food delivery (OFD) services. *Journal of Retailing and Consumer Services*, *35*(C), 150-162.

Yohn, D. L. (2020, July 06). The pandemic is rewriting the rules of retail. *Harvard Business Review*. Retrieved from https://hbr.org/2020/07/the-pandemic-is-rewriting-the-rules-of-retail.

Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2006). *Services Marketing*, 4th edition. Boston, MA: McGraw-Hill.