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ORIGINAL ARTICLE

TOUCHING THE COVID-19 PANDEMIC IMPACTS ON MALAYSIAN OLDER ADULTS' ONLINE SHOPPING BEHAVIOURS: A MARKETING BUSINESS REVIEW

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ABSTRACT – The recent crisis of COVID-19 outbreaks can be seen to impacts all people in the world, especially older adult who need to exercise more caution and awareness when interacting with other people as they have higher chances of experiencing health issue if infected. This can be seen to affect older adult purchasing behaviors as well as they are pushed to accept and apply online shopping in their daily life to prevent a potentially life-threatening interaction with other people when they shop at a physical store. Statistics report reveals that older adult in Malaysia have becoming active in online shopping during the COVID-19 pandemic outbreak period. This show that Malaysian older adult has exhibit more acceptance towards online shopping and have been adopting this innovation during the pandemic period. To better understand how older adult individuals developed their acceptance behaviors towards online shopping, this study has performed an extensive review on past literature. The review identified several theories and models that were applied by scholars to investigate older adult behaviors towards technologies such as online shopping. Through this review, this study hopes to provide future scholars with knowledge pertaining the current perceptions and behaviors of Malaysian older adult towards online shopping while also contributing to the literature regarding the potential theories and models that can be used to explains older adult acceptance and behaviors towards technologies such as online shopping. In addition, this paper also reviews past literature and report pertaining older adult behaviors towards online shopping in terms of before and during the COVID-19 pandemic, while seeking to generate insight on the future online shopping behaviors among older adult after the end of the outbreak.

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INTRODUCTION

The advancement of technology has changed and influenced the way consumer behaves immensely, beginning from the electronic and mechanical then moving on to the mobile and digital technology. Digital marketing is one of the technologies that have received attention recently and it was acknowledged to change how business communicate with their consumers. Due to the changes in the way consumers behave towards marketing, it was necessary for marketers to readjust and replan their marketing strategies in the digital domain. As the overall number of digital users that engage in online medium is growing by days, it was important to understand that offline marketing effectiveness are not as they used to be (Mohaidin, 2020).

This further highlights the importance that digital marketing has; pushing marketers to better understand their consumer decision making that is pertain to the online domain. As consumers switch to technology and digital gadgets, they have spent less time visiting physical stores. In exchange, consumers are now examining and viewing potential products and brands they intend to purchase using a digital platform or online media. From this, it can be implied that consumers have started changing their purchasing behaviors and are now becoming more active in using digital platforms to make their purchases. Hence, there is a need to push and improve digital marketing campaigns to be more efficient and prevalent enough to encourage consumers to make the purchase decision pertaining to digital marketing (Mohaidin, 2020).

In online shopping industries, older adult individuals have been recognized as one of the significant and profitable target markets due to their increasing population numbers and internet usage (Soh et al., 2020). Nonetheless, studies focusing on online shopping behavior among older adult consumers are still limited (Eneizan et al., 2022; Ismail and Abdul Wahid, 2022). However, due to the potential market that older adult has, it is important for online marketers to have deeper understanding on their perception and behaviors towards online shopping services to gain more insight on how to better capture this target market (Soh et al., 2020).

Furthermore, adopting online shopping is believed to be important and particularly beneficial to older adult groups due to its ability to improve their life quality. Generally, as human ages, they become more physically and cognitively frail (Kovalenko, 2021; Huxhold et al., 2020; Miyamura et al., 2019). Due to this, shopping at a physical store might be more difficult and exhausting for older adult consumers. Compared to shopping at online store, offline shopping can be

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more taxing in term of the physical exertion due to the declining mobility that the older adult have as they age (Soh et al., 2020) which in turn makes all physical activity required to conduct the shopping process such as driving, walking, and carrying the purchased items becomes a more difficult and an exhausting process for this consumer group (McCloskey, 2006). Johnson and McLeod (2017) further state that mobility issues can interfere with older adult basic shopping behaviors. For example, older adult individuals generally have a significant amount of fear towards falling due to their declining body balance and leg strength which can make shopping activities more dangerous for them. Due to this, older adult consumers are believed to face more mobility related issues when performing their shopping activities, making it inconvenient for them to go to the physical store each time to make their purchases.

Another concerns that plague older adult when shopping is the distance between their house and the store. In 2016, Lesakova have conduct a study to investigate the behavior and satisfaction of older adult customers during their food procurement process and discovered that there is nearly a quarter of older adult who was described to have a mobility issue. According to Wu and Song (2020), mobility issue is the most prevalent type of disability among older adult individuals, with people reporting that they face difficulty walking as they age. This can make it more difficult for them to travel far to perform the shopping process. In a situation where the store near their house was closed due to the presence of large suburban supermarkets, they will be forced to spend more energy to travel to a more distant store to purchase the product they want. Ishikawa et al. (2016) explain that this situation has a negative impact on older adult shopping behavior as it led to a longer traveling distance between the older adult house and the store they can shop at.

Overall, it can be observed that older adult can faces more difficulty when shopping at a physical store. However, this difficulty can be reduced if they start to accept and participate in online shopping to complete their shopping tasks. When shopping through the online store, shoppers can gain the ability to reach and access web stores from the comfort of their homes and can freely shops while sitting in front of the computer (Vaghela, 2014); allowing them to purchase anything they want without actually going to the physical store (Vasic et al., 2019). As results, older adult can freely purchase any product they desire without facing any of the difficulties and issues related to their declining mobility or real-world physical distances. Additionally, because older adult is aging as the years pass; causing their initial mobility capacity to decline, it is more convenient for them to have their purchased goods shipped directly to their house (Ecommerce for the Elderly, 2016) instead of carrying it physically from the physical store. In sum, online shopping can give a great deal of benefits to older adult consumers if they participate in it, making it an important and beneficial innovation that older adult is encouraged to participate in.

The importance of online shopping has become more apparent and important after the Coronavirus-19 (COVID-19) pandemic outbreak which cause consumers to develop a huge shift in their shopping behaviors, where more of them have start to change from purchasing at offline (physical) store to online store. This is due to the increasing risk related to COVID-19 which have since push consumers to avoid visiting public locations (such as local retail stores and supermarkets), hence motivating them to engage in online shopping as the means to purchase products (Aggarwal & Kapoor, 2020). Therefore, electronic commerce has become an important shopping channel during the times of COVID-19 pandemic; causing retailers to put more effort in developing, improving, and promoting their online stores (Koch, Frommeyer, & Schewe, 2020).

The crisis brought by the COVID-19 can also be seen to influence older adult more extensively compared to other age groups (Kovalenko, 2021). Due to the presence of the virus, older adult must exercise more cautions and awareness when interacting with other people as they have higher chances of experiencing critical health issue if they're infected (Centers for Disease Control and Prevention, 2021; Kovalenko, 2021; Hewitt et al., 2020). Hence, online shopping become an important platform that can assist older adult consumers to perform their shopping tasks without being in close contact with other people (e.g., store staffs or customers) thus allowing them to reduce the potential risk of being infected.

In addition, Nielsen (2020) report that financially restrained consumers (including older adult) have begun to search for less expansive alternatives or avoid certain purchases altogether during the pandemic season. This could be contributed to the pandemic that has drastically impacts their financial capacity; forcing them to become more mindful and calculative when planning their purchases. Consistent to this, Marrow-Howell et al. (2020) states that older adult retirement savings have been reduced drastically in 2020; indicating that shopping now focus more on reducing consumers financial difficulty and hardship instead of for indulgence purposes (Kovalenko, 2021).

To gain deeper understanding over the impact of COVID-19 pandemic on older adult online shopping behaviors, this paper will review the literature and data pertaining to online purchasing behaviors among Malaysian older adult; mainly on their behaviors prior to COVID-19 arrival, during the COVID-19 pandemic, and finally on the expected behaviors that they might take at the end of this pandemic. In addition, theories and models that were used to explain older adult behaviors towards technologies are also reviewed in this paper to gain more insight on the factors capable of explaining their technology acceptance (e.g., online shopping).

LITERATURE REVIEW

Older Adult Technology Adoption

Older adult groups tend to be described as peoples who are not very tech-savvy and generally limit their access on technology (e.g., Kovalenko, 2021; Kania-Lundholm & Torres, 2015). Previously, Turner et al. (2007) found that older adult individuals encounter variety of challenges when attempting to learn and use interactive technology. These challenges can include anxiety, physical and cognitive limitation, attitudinal problems, issues about the perceived relevance of the technology to everyday life, perceptions of learning abilities in the latter stage of life, and the degree of

social relationship with the computer. Due to these challenges, older adult is more likely to have difficulty in using technology. Consistent to this, Seifert et al. (2021) point out that older adult individuals generally are less capable of connecting to the digital world.

Nonetheless, technology is becoming more important and necessary to all society members including older adult. For instance, by using technology, users are able to obtain great boons that comes in the form of connection and communication with their families and friends, obtaining and accessing information, shopping, and even accessing entertainment (Eneizan et al., 2022; Kovalenko, 2021; Macedo, 2017; Wang and Sun, 2016; Papanis et al., 2010). In addition, previous scholars also states that by adopting technology, older adult may even able lower their overall dependency on their families or caregivers (Mitzner et al., 2010) while improving their quality of life (Chaumon et al., 2014). Moreover, as a person ages, their health-related expenditure will also increase and one way to reduce older adult healthcare expenditure is by keeping them healthy and independent (Kovalenko, 2021). The application of information and communication technology (ICT) in particular was described to help older adults to become more independent, therefore reducing healthcare spending (Kovalenko, 2021; Lenca et al., 2021; Spann and Stewart, 2018).

Additionally, due to the longer lifespan nowadays, older adult citizens have increased the number of the world populations (Barbaccia et al., 2022), thus making them one of the important members in the society. As the digital world becoming inevitable in the future, it was important to encourage people of all age groups (including older adult) to adapt to the online world (Chandra, 2019). Therefore, it is important to have better understandings on how older adult feel, perceive and behave towards technology in order gain insight and comprehension on how to motivate them to accept and adopt digital technology in their life.

Theories of Older Adult Technology Adoption

Previously, scholars have examined and applied various theories and models to better understand older adult acceptance and behaviours towards technologies. For instance, models and theories such as Technology Acceptance Model (TAM), Flow Theory, Unified Theory of Acceptance and Use of Technology (UTAUT), Innovation Resistance Theory (IRT), and Theory of Planned Behaviours (TPB) are found to be used in studies that investigate older adult technology adoption behaviours (e.g., online shopping). By applying these theories and models in their studies, scholars are able to investigates and better explains how older adult perceive and behaves towards technologies.

In 2018, Kiattiwittayasakul have apply TAM to investigating older adults' intention to purchase products on online platform. The study found that perceived usefulness and perceived ease of use affect both online and non-online shoppers' groups' attitude towards online buying. Furthermore, attitude towards online buying have been identified as a factor that influence older adults' purchase intention; however, it was only for the non-online shoppers' groups since the study did not explore the influence between attitude towards online buying with online purchase intention for the online shopper group. Overall, this study support TAM explaining power in regard to older adult behaviours when engaging in online shopping.

Subsequently, review on past literature found that scholars have also extend the original TAM (either by adding additional constructs or integrating it with other theories) to better explains older adult perception and acceptance towards a technology. Xu et al. (2021) is one of the studies that further extend the original TAM in a study that investigates older adult intention to purchase through social media in Pakistan. This study has integrated TAM with the Flow Theory where it was found that determinants such as feedback, enjoyment, and time distortion positively affect flow experience. However, concentration factors on the other hand did not have a significant effect on flow. Furthermore, flow was found to have a significant impact on perceived ease of use, perceived usefulness, and social media purchase intention. Moreover, a positive relationship between perceived ease of use and perceived usefulness was identified. Finally, both perceived usefulness and perceived ease of use were also found to be in a positive significant relationship with social media purchase intention.

Another study in United States by Wu and Song (2020) examine older adult intention to continue online shopping by developing a model that integrate TAM with other theories, namely, TPB. The study also includes two additional constructs, namely, perceived lack of shopping mobility and perceived social isolation in the model as external variables. The results of the study identify perceived lack of shopping mobility to be positively related to the perceived usefulness of online shopping and perceived social isolation but have insignificant impacts on perceived ease of use. Perceived ease of use was found to positively influence perceived usefulness and attitude. Furthermore, perceived usefulness has a significant impact on user attitude and online shopping continuous intention. Attitude similarly was found to affect older adult continuous intention towards online shopping. Subsequently, perceived social isolation was found to be positively related to subjective norms but negatively influence older adult perceived behavioural control. Furthermore, perceived behavioural control have a positive impact on older adult intention to continue online shopping. Finally, subjective norms influence on continuous online shopping intention was found to be insignificant.

Similarly, Guner and Acarturk (2018) have also extend TAM by including additional factors composed of social influence, facilitating condition, anxiety, and self-satisfaction to investigate older adult acceptance towards ICT. The result of the study found that perceived ease of use can be influenced by facilitating condition, anxiety, and social influence but not self-satisfaction. Furthermore, perceived usefulness was found to be influenced by perceived ease of use and self-satisfaction, but not facilitating condition, anxiety, and social influence. Subsequently, both perceived ease of use and perceived usefulness have significant influence on attitude, but not on older adult behavioural intention towards ICT. Finally, behavioural intention was found to be affected by attitude.

Another study that extends TAM was conducted by Wang and Sun (2016) who investigate older adult intention to play digital games. The study includes additional constructs composed of narrative, social interaction, and physical condition as independent variables. Additionally, demographic aspects such as gender, age, and experience were applied as the moderators in the study. Overall, the study found that game narrative, social interaction and physical condition can serve as a direct and significant predictor to older adult gameplay intention. In addition, demographic aspects were also found to have moderating effect in the study model; where it was suggested that younger female older adult has the highest intention to play digital games. Furthermore, older adult who live alone, or who have fewer interactions with family members, and those who frequently perform physical exercise are more likely a potential player who play digital game.

Soh et al. (2020) conducted a study to examine Malaysian older adult perceptions, acceptance, and willingness towards online shopping by integrating 2 theories, namely, UTAUT and IRT. Out of the four factors taken from UTAUT (effort expectation, performance expectancy, social influence and facilitating condition), Soh et al.'s (2020) found that only performance expectancy, social influence and facilitating condition have significantly influence older adult perceptions, acceptance, and willingness towards online shopping, while effort expectation was not. Subsequently, in term of online shopping barriers that examine the five barriers of IRT (usage barrier, value barrier, risk barrier, tradition barrier, and image barrier), Soh et al. (2020) found that while usage barrier, value barrier, risk barrier, and tradition barrier showed negative relationship with older adults' perceptions, acceptance, and willingness towards online shopping, image barrier did not have significant influence on it.

Another study in Taiwan by Lian and Yen (2014) similarly apply both UTAUT and IRT to examine the intention to shop online among both young and older adult consumers. Lian and Yen (2014) found that both young and older adult consumers can be motivated to purchase online by performance expectation and social influence. Additionally, the study further found that while younger consumers are only concerns with value barrier, older adult consumers are worried of value, risk, and tradition barrier when engaging in online shopping.

In Jordan, Eneizan et al. (2022) conducted a study to examine the factors that influence online shopping acceptance among older adults during the pandemic season. UTAUT was chosen as the main model to investigate this study along with COVID-19 fear as an additional factor in the model. Overall, the study found that older adults' intention to adopt online shopping was significantly influenced by social influence, performance expectancy, effort expectancy, facilitating conditions, and COVID-19 fear. Eneizan et al. (2022) further states that the integration of existing technology models (e.g., UTAUT) with other constructs is able to provide better results and enhance technology adoption during unexpected situation such as the COVID-19 outbreak.

Yang et al. (2022) have employed meta-UTAUT to explains older adult user intention to use smart phone. Meta-UTAUT is a refined model adopted from UTAUT by Dwivedi et al. (2019) who argue that the moderators specified in the original UTAUT model may not be applicable in all contexts and the individual characteristics such as attitude not theorized in the original UTAUT model should be introduced. In their study, Yang et al. (2022) confirms that the meta-UTAUT model can predict older adults' smartphone usage intentions and behaviours. Overall, the study found that performance expectancy, effort expectancy, and social influence show significant influence on attitude and behavioural intention toward using smartphones application. Furthermore, although facilitating conditions was found to not significantly affect behavioural intention, it had a strong effect on older adult attitude toward using smartphones. Lastly, a positive and significant relationship between attitude and behavioural intention was identified in this study.

Yuksel (2019) explored the application of the TPB to explains older adult shopping orientation (hedonic and utilitarian) and intention to shops online. The study found that there is a significant relationship between attitude toward online shopping, subjective norm, and perceived behavioural control with older adult online shopping intention. Moreover, while older adult shopping orientation was found to explain their online shopping intention, its effect on online shopping intention become insignificant when it was tested along with attitude toward online shopping, subjective norm, and perceived behavioural control.

Malaysian Older Adult Behaviors Towards Online Shopping Prior, During, and After Covid-19

As previously discussed, COVID-19 outbreak has affected older people more extensively than other age groups. As such, this paper aims to examine the impacts of COVID-19 on Malaysian older adults. The following sub-sections will examine and discuss Malaysian older adult online shopping behaviours prior, during, and after COVID-19 pandemic effects.

Malaysian Older Adults Behaviors Towards Online Shopping Prior to Covid-19

Prior to the appearance of Covid-19, the number of Malaysian older adults that participate in online shopping is Prior to the appearance of COVID-19, the number of Malaysian older adults that participate in online shopping is smaller compared to other age groups. According to Statista report, in 2016, the overall number of Malaysia older adult (who age 50 years old and above) that engage in online shopping is lower than younger consumers (who age between 20 to 29 years old) (Statista, 2017). A similar trend could also be observed in the following years. Statista (2018) report that in 2017, the number of older adults (who age 55 to 64 years old) that engage in online shopping is lower than younger consumers (who age between 25 to 34 years old). Similarly, MCMC (2018) report that compared to older adult consumers (who age 50 years old and above), the number of younger consumers (who age 20 to 29 years old) that adopt online shopping is

found to be higher (MCMC, 2018). From this, it can be observed that Malaysian older adult did not participate in online shopping as actively as younger consumers hence implying that their intention to participate in this shopping platform is lower compared to younger individuals.

In terms of the online purchasing frequency, MCMC (2018) report that younger consumers have made more frequent online purchases compared to the older adult consumers. The survey highlights that majority of older adult consumers (in the age group of 50 years old and above) rarely engage in online shopping as they only purchase online a few times a year. In contracts, the percentage of younger consumers (in the age group of 20 to 29 years old) that only purchase online a few times a year is smaller. Overall, this suggests that compared to younger consumers, most of Malaysian older adult are not an active online shopper as most of them prefer to purchase through online channel only a few times a year. In contrast, most of the younger consumers are generally more active in online shopping and have purchase through online channels several times a month (MCMC, 2018).

MCMC (2018) report have also provided a list of reasons detailing why Malaysian consumers (including older adult) become motivate to purchase online. According to the report, the factors that encourage consumers to engage in online shopping mainly lie in the convenience, accessibility, pricing, selection, product information and ease of payment that this shopping platform provides. In addition, it was reported that simpler buying processes which allow consumers to easily collect and perform research on product information before making the actual purchase can also encourage them to purchase through online stores (MCMC, 2018). For instance, by using online platforms such as Trivago or Skyscanner, consumers can simultaneously compare products and prices across different retailers. Furthermore, they can also visit and browse several online stores that offer wider product selections which exceed the numbers of physical stores (MCMC, 2018). Subsequently, the better prices of online shopping have also encouraged consumers to start purchasing online. A good competitive strategy focusing on prices such as special deals, discount vouchers, festive sales, and member privileges have further supplied consumers with the choice of better pricing compared to physical stores (MCMC, 2018).

In addition to the motivating factors, MCMC (2018) also provided a list of reasons on why Malaysian are not participating in online shopping. According to the report, the main reason for Malaysian not engaging in online shopping is because they prefer to shop at the brick-and-mortar shops. Additionally, the report shows that lack of knowledge, confidence, and skills, not interested in performing e-Commerce transaction, concerns on data security and privacy, concerns on delivery and trust related issue, unstable internet connection, bad experience with online shop, complicated website navigation, and lack of address for postage are also among the reasons behind Malaysian refusal to purchase at online channel (MCMC, 2018).

MCMC (2018) has also provided report on the three types of goods and services that are mostly purchased by older adult. According to the report, older adult in the age group of 50 to 59 years old prefer to purchase fashion apparel, e-Government services, and accommodation respectively through online channels. Subsequently, older adult who age 60 years old and above was reported to prefer purchasing travel ticket, accommodation, and fashion apparel respectively at online shops. In sum, it can be concluded that in 2018, majority of older adult (in the age group of 50 years old and above) prefer to use online shops to purchase fashion apparel product, accommodation, travel ticket, and e-government services.

Malaysian Older Adult Behaviors Towards Online Shopping During Covid-19

By 2020, the presence of COVID-19 pandemic in Malaysia has shifted the behaviors of older adults' consumers towards online shopping as more of them have start to participate in the said innovation. Statista (2020a) report shows that there is a large percentage of older adults that make more online purchases in 2020. According to the Statista (2020b) report, the main reason behind older adult increases in online purchase during the pandemic is due to them/their family practicing social distance and want to minimize the time they spend outside their house, their desire to avoid queue on supermarkets and other shops, Malaysia country imposing closure on all non-essential business, online shopping allowed them to purchase more items compared to physical shops, they/their family was/were under quarantine and was not allowed to leave their home, and the item they want are only available on online shops or e-commerce sites (Statista, 2020b).

Statista (2020c) further report that the main reason why Malaysian older adult chooses to continue purchasing online is due to their concern on contracting the COVID-19 virus even if the movement restriction were lifted, hence making them want to limit the time they spend outside their house. Besides this, the other reasons for older adult continuous online purchasing are due to thinking that it was much more convenient to purchase online than to go to the physical shop, having an overall positive experience when using e-commerce website and online shopping, thinking that it was easier to find better deals through online channel than at the traditional shops, and foreseeing that they will not have much time after the restriction lift due to work commitment.

While some older adult consumers choose to make more online purchases during the COVID-19 pandemic, at the same time, there is also a group of older adults that choose to reduce the amount of their online purchases (Statista, 2020a). According to Statista (2020d), the main reason behinds the decline of online shopping among older adult consumers are due to them being affected by the economic impacts caused by the COVID-19 pandemic which led them to try reducing their unnecessary expenses, online shopping have a long delivery time that was caused by the increases in demands, the items they intend to purchase is unavailable or constantly out of stock, the price of the product that they want to buy have increases due to the increasing demand and limited stock, and wanting to shop at physical stores as it was the only possibility for them to go outside.

Additionally, there are also a group of Malaysian older adult that choose to refrain and even avoid from engaging in online shopping despite the pandemic situation (Statista, 2020a). Statista (2020e) report that the main reason for older adult to stop purchasing online is due to their preference to shops at the physical stores and being able to inspect the product before buying it, enjoy going shopping and look forward to being able to do it again, think that it was easier to find better deals at the physical shop, want to support the local brick and mortar shop especially during this time of crisis, and due to experiencing negative experience when using e-commerce sites and online shopping respectively (Statista, 2020e).

In terms of the online purchase frequency, Statista (2020f) reports that the number of older adults that did not purchase anything in a month is higher than younger consumers. As such, they are more likely to engage in online shopping on a yearly basis (e.g., only purchase online once every several months). This implied that compared to younger consumers, older adult consumers might not engage in online shopping as frequently.

Statista (2020g) provided report detailing the main products frequently purchased at online stores among Malaysian older adult during the COVID-19 pandemic. The report shows that the products generally purchased by older adult are food, beverages, and groceries product, personal hygiene product and household cleaning product. Older adult may purchase these products due to their concern on the COVID-19 virus thus motivating them to avoid going out and purchase the essential product at online stores instead. Furthermore, their desire to protect themselves and their family from the virus may also encourage them to purchase personal hygiene and household cleaning products. Subsequently, while not as frequently purchased online as these three products categories, Malaysian older adult was also reported to use online shopping to purchase apparel and accessories, book and stationery, cosmetic and beauty product, technology and electronic, furniture and household items, toys, games and puzzles, hobbies and craft supplies, alcoholic beverages, medicines, sport equipment and clothing, music's, movies and television entertainment, and pet foods and its related supplies (Statista, 2020g).

Malaysian Older Adults Expected Behaviors Towards Online Shopping After Covid-19

As the world recover from the COVID-19 virus, it was predicted that the overall number of Malaysian older adult who will continue to participate and increase their online purchase will start to drop. This is believed to be contributed by the fact that most of them are only purchasing online due to being affected by the pandemic situation where the changes in their shopping behaviors are considered necessary to survive this pandemic situation.

Statista (2020b) report that some of the main reasons for older adult increases in online shopping are their family practicing social distance and want to minimize the time they spend outside their house, due to Malaysia country imposing closure on all non-essential business, and their family was under quarantine and was not allowed to leave their home. These reasons suggests that COVID-19 situation is the main cause for Malaysian older adult increases in online purchases as they consider online shopping to be the safer shopping channel to avoid the virus exposure. Moreover, the policy, rules, law, and MCO enforced by the Malaysia government due to the COVID-19 danger might also contributes to older adult increasing online purchases as they are requested to limit the number of their outside activities.

Moreover, it was reported that older adult consumers have continue purchasing online during the pandemic period because they are worried of contracting the COVID-19 virus even if the movement restriction was lifted and thus wish to limit their time outside of their house (Statista, 2020c). Hence, most of these individuals are likely to stop engaging in online shopping after the end of this pandemic season and return to making their purchases at the physical stores. Consistent to this, Statista (2021) reports that more than half of older adult consumers state that they will shop at physical stores after the lift of COVID-19 restriction.

METHODOLOGY

In this section, the procedures applied for searching, filtering, categorizing, and reviewing publications on the topic of older consumers behaviours towards technology and their online shopping behaviours during the COVID-19 pandemic will be outlined. To locate suitable publication and studies pertaining to the interest of this study, an electronic search using google scholar was conducted. Through this, several abstract and studies title were reviewed to identify their suitability and relevancy to this paper. The attempt to locate suitable studies was further enhanced through the application of 21 keywords and their combination (older adult, older consumer, senior consumer, grey consumer, mature consumer, elderly consumers, baby boomers, e-commerce, grey market, mature market, online shopping, online shopping behaviour, online purchase intention, shopping behaviours by age, technologies acceptance, theories, models, COVID-19 pandemic, pandemic, virus, health risk). Using these methods, several studies on the topic of older adult technology (e.g., online shopping) acceptance and behaviours were found, shortlisted, and included for this paper review. Furthermore, this study also includes similar topic found from the postgraduate theses as part of the review. Additionally, to obtained data on Malaysian online shopping behaviours, a search was conducted on Malaysian Communication and Multimedia Commission and Statista database. Suitable statistical data related to older adult online shopping behaviours prior and during the pandemic period was included and discussed in this paper review. To provide a review that is up-to-date and critical, only relevant studies and data published from 2010 and above were included for analysis.

CONCLUSION

The review conducted on the literature had led to several conclusions. Firstly, the advancement of technology has shifted the way consumers conducts their shopping activities as they are now capable of using internet to do their shopping. This is especially beneficial to certain consumers populations such as older adults as it allows them to avoid the difficulties related to mobility issues when conducting their shopping activities. In addition, when older adult consumers shop at an online store, they can gain multiple benefits such as the ability to shop at the comfort of their own home and avoid carrying the products themselves as it will be delivered directly to their house. This allow them to save their energy and avoid making heavy shopping activities (e.g., driving for a long time and carrying the purchased items home) that can be exhausting and affects their health negatively. Hence, technologies such as online shopping can play an important role in improving older adult life quality, which point out to the rising need to encourage them to adopt these online services. Nonetheless, studies on the area of older adult online shopping acceptance and behaviours are found to be quite limited. Therefore, scholars should further explore this area of study.

Secondly, this study review found that several theories and models (e.g., TAM, UTAUT, IRT, and TPB,) is able to explains older adult behaviours towards technologies. For instance, several factors such as perceived technologies usefulness and ease of use (TAM), performance expectancy, effort expectancy, social influence, facilitating condition, attitude (UTAUT and meta-UTAUT), usage barrier, value barrier, risk barrier, tradition barrier (IRT), perceived behavioural control, and subjective norms (TPB) was found to explains older adult acceptance and intention to use technology (e.g., online shopping). Hence, this paper review has contributed towards the identification of factors that can influence and explains older adult technology acceptance and behaviours. Future scholars can benefit from this review by recognizing which theories and models was previously used by scholars to explain older adult acceptance and behaviours towards technologies. Scholars can also use this review to further refine their study model by adding additional factors, models, and/or theories to explore other perspectives that was not examine in the past studies. Similarly, marketers can also benefit from these knowledges by using the review findings and incorporate it in their future strategies that target at older adult consumer segments. For example, as technology ease of use was identified as one of the main considerations for older adult consumers when engaging in online shopping, retailers can consider improving their web store layout to make it more user friendly to older adult individuals. For instance, they can create a web store pages with larger font size to make it easier for older adult consumers to read and use the online store platform.

Thirdly, the appearance of the COVID-19 virus has created a shift in the shopping behaviors among Malaysian older adult as it requires them to adopt to the new norms and social behaviors where they are discouraged from getting into a close contact with other people and going outside of their own house. The purpose of the new social norms and behaviors is to help prevent them from being further exposed and infected by the COVID-19 virus; an attempt made to reduce the number of victims caused by the said virus. As such, older adult consumers must find new ways to perform their shopping activities without going outside of their house. Online shopping is an excellent solution to this situation as it allows consumers to browse and purchase the product they want without the need to go to any physical outlet. By shopping online, older adult can make their purchases at the safe and comfortable spaces of their own houses, while limiting the number of exposures to other peoples (e.g., store staffs or consumers). It is likely that due to this, Malaysian older adult was found to participate in online shopping during the pandemic period. It was reported that the main reasons for older adult increasing and continuous online shopping participation is due to the concern that they have towards the COVID-19 virus and because of the government policy that limits their actions during the pandemics. Hence, it was implied that the increases in online shopping participation among older adult consumers during the pandemic are mostly contributed to the virus presences. Due to this, it is likely that most of these older adult consumers will return to shops at the physical stores once the threat of COVID-19 begins to subside. Through this review, marketers can gain more insight on the behaviors pertaining to older adult online shopping behaviors during the COVID-19 pandemic while also comparing it to their behaviors prior to the pandemic appearance. Additionally, marketers can also use this review to identify the reasons why Malaysian older adult want to purchase online as well as the reason behind their reluctance to engage in it. This might benefit them when developing marketing strategies that focus on increasing the appeal of online shopping that older adult consumers seek (e.g., avoid queue) while reducing the factors that cause them to become reluctant to use it (e.g., long delivery time, product often being out of stocks).

Lastly, Malaysian older adult is found to purchase different products categories in term of before and during COVID-19 pandemic. For instance, in 2018 when the pandemic has yet to appear, most of Malaysian older adult was reported to prefer using online shopping to purchase products and services related to the fashion apparel, accommodation, travel ticket, and e-government services. However, when COVID-19 virus began to appear in the world, it was found that older adult individuals have mostly used online shopping to purchase products such as foods, beverages and groceries, personal hygiene products, and household cleaning products. From this, it can be implied that products related to living essential are also among the products that Malaysian older adult consumers purchase at online stores during the pandemic period. This could be contributed to the new social norms that discourage citizens from leaving their house unless it was for something important, thus encouraging them to purchase essential products online. Additionally, older adults were also shown to purchase products related to personal hygiene and household cleaning. This might be contributed by the facts that the media have been providing an extensive and detailed information's on the sanitization and preventive method on how to keep oneself safe from the virus exposure, causing the demands to these types of products to skyrocket. According to the industry report, consumers have become "emotionally engaged" with cleaning related products during the period of COVID-19 crisis (Rosenberg, 2020). The concern and fear they have of being infected have pushed cleaning related

products into the same importance as other essentials products for some individuals (Kovalenko, 2021). Furthermore, the review also found that some product categories was purchased more by Malaysian older adult consumers compared to other product categories. In sum, this review shows that there is a change in the product categories that Malaysian older adult consumers purchased at the time of before and during COVID-19 pandemic. Moreover, some product categories receive a higher purchase rate compared to others during the pandemic period. From this, it could be suggested that consumer intention and behaviors towards online shopping are not general and might change depending on the product categories examined. Hence, future scholars are encouraged to investigate older adult online shopping behaviors towards multiple product categories.

Overall, this paper is believed to contribute to the literature and knowledge by providing reviews on older adult's online shopping behaviors during COVID-19 crisis as well as on the past studies involving their behaviors towards technologies. The review on the applied models and theories by past studies is believed to benefit future scholars when deciding in the selection of possible factors of older adults' online shopping behavior. Additionally, the review on Malaysian older adult online shopping behaviors during COVID-19 crisis is believed to help enrich existing literature related to COVID-19 pandemic and older adult online shopping behaviors. Subsequently, the review of this paper is believed to encourage more studies on older adult online shopping behaviors to be performed. It is also believed to guide marketing practitioners to better understand older adult consumers and the factors that affect their behaviors towards online shopping which can be beneficial to them when developing future marketing strategy that aims at this consumer segment.

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CONFLICT OF INTEREST

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