



**INTERNATIONAL JOURNAL OF  
ENTREPRENEURSHIP AND  
MANAGEMENT PRACTICES  
(IJEMP)**  
[www.ijemp.com](http://www.ijemp.com)



**AN EMPIRICAL STUDY TO EXPLORE THE INFLUENCE OF  
THE COVID-19 CRISIS ON THE APPAREL PURCHASING  
BEHAVIOUR FROM PHYSICAL TO ONLINE SHOPPING IN  
MALAYSIA**

Normaziana Hassan<sup>1\*</sup>, Basitah Taif<sup>2</sup>, Rosita Mohd Tajuddin<sup>3</sup>

<sup>1</sup> College of Creative Arts, Universiti Teknologi MARA (Kedah branch), Malaysia  
Email: normazianahassan@uitm.edu.my

<sup>2</sup> College of Creative Arts, Universiti Teknologi MARA Shah Alam, Malaysia  
Email: basitah@uitm.edu.my

<sup>3</sup> College of Creative Arts, Universiti Teknologi MARA Shah Alam, Malaysia  
Email: rositatajuddin@uitm.edu.my

\* Corresponding Author

**Article Info:**

**Article history:**

Received date: 20.11.2023

Revised date: 01.12.2023

Accepted date: 10.12.2023

Published date: 01.03.2024

**To cite this document:**

Hassan, N., Taif, B., & Tajuddin, R. M. (2024). An Empirical Study To Explore The Influence Of The COVID-19 Crisis On The Apparel Purchasing Behaviour From Physical To Online Shopping In Malaysia.. *International Journal of Entrepreneurship and Management Practices*, 7 (24), 01-23.

**DOI:** 10.35631/IJEMP.724001.

This work is licensed under [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)



**Abstract:**

Shopping for clothes is a retail therapy among various generations, including Generation Y and Z. The ability to choose, feel and spend within the financial plan provides personal satisfaction for individuals. Specific aspects of customer satisfaction matter depending on where the customer shop since it shows customer loyalty. The changes of cashless payment have made consumer's to move into a cashless society. It is important to investigate how consumers' behaviour changes, particularly in response to various circumstances. However, the infectious outbreak of Coronavirus "COVID-19" that occurred globally in 2019, has shaped the shopping culture which now includes both in-store and online purchases. With the transformation that has occurred, this study investigated the relationships between personal characteristics and re-patronage behavioural intention among Generation Y and Generation Z; in adapting to the new norm of shopping in Malaysia. Hence, this study investigated how the pandemic influenced consumers' perceptions and determines factors contributing to consumers' intention in using cashless payment. A quantitative methodology was adopted and surveys were distributed to uncover the shopping culture of individuals from these generations. Through descriptive statistical analysis, the results represent the relationship between personal characteristics and re-patronage behavioural intention. Generation Y and Generation Z found the functions and activities of online purchases as straightforward and convenient, which derives a positive attitude toward the online platform. This study demonstrates that the crisis significantly and positively influences online shopping culture. The findings

acknowledge the impact of COVID-19 outbreak on consumer's behavioural intentions to use cashless payment during the lockdown.

**Keywords:**

COVID-19, Apparel Purchasing Behaviour, Physical To Online Shopping, Generation Y And Generation Z

## Introduction

Shopping has become an escape outlet for many people especially to Malaysians who love to be up-to-date with current trends. This is apparent especially between the younger generations of Generation Y and Generation Z. Browsing around clothes from one outlet to another becomes a ritual interest (Brain & Spine, 2021). Subsequently, the fashion forecast provides upcoming trends for the following season and allows keen consumers to look forward to the latest trend in the market. The trending styles can appear either in stores or on the runway which are presented to fulfil fashionistas demands. However, when COVID-19 struck in 2020, almost every country globally changed their shopping culture drastically (Jones, Palumbo, & Brown, 2021). The coronavirus has spread all over the world, beginning from late 2019 and grew rapidly in 2020 where some cases are still being reported until today. This has led people to find ways to co-exist with the virus as it has become an epidemic. During the crisis, the imposition of lockdowns led to multiple closures of shops and services to reduce the infections. To counter this situation, many brick-and-mortar merchants have changed their business model to online, such as implementing online shops and providing digital services to survive and thrive during the crisis. The method of payment for online shopping has also changed due to the pandemic as many consumers started using cards such as credit and debit cards, and electronic payments such as e-money, internet banking, and mobile banking. The electronic payment system increases the speed of transactions and enhances customer experiences (Lim, 2019). This is a method for both merchants and customers to keep updated with the current method of shopping which is online shopping. The situation has shifted the purchasing attitude among shoppers at various levels in Malaysia, especially between the youths of Generation Y and Generation Z which henceforth will be mentioned as "Gen Y" and "Gen Z" throughout this writing. Online apparel shopping has become their lifestyle as the traditional method of purchasing has been switched alongside the worldwide change (Sneader & Singhal, 2021).

Because of the worldwide pandemic people will cognitively adjust their behaviour to living with the virus. Cashless payment is an alternative payment method that could limit the spread of the virus as the virus is known to be airborne and spread rapidly by close contact and touch (WHO, 2020). Online shopping allows the financial transactions to be completed without visiting brick-and-mortar stores that has the potential to spread the coronavirus disease further. Despite the various steps taken by the government, movement restrictions implemented, the acceleration of e-commerce, and the modern payment system, cash remains the preferred means of payment in Malaysia (Bank Negara Malaysia, 2021). Only 5% of total daily cashless payment transactions were reported (Lim, 2020).

Additionally, the habit of using cash among Malaysians can be seen widely implemented especially in the rural areas due to lack of access and knowledge for online payments. The Charm et al. (2020) estimates that 72% of the total transactions in Malaysia are using cash. These statistics imply the habit of using cash is widespread among Malaysians.

The demand for eCommerce is on the rise and rapidly evolving with new generations (Generation Y and Generation Z) of consumers participating actively in the activities (Statista Research Department, 2022). These generations are labelled as tech-savvy. Keenan (2023) reported an increase in online apparel purchasing despite the current economic condition and living crisis. It is predicted that online fashion retail will escalate its worth from USD 533 billion in 2018 to USD 870 billion in 2023. Amartuvshin, Chung and Al-Khaled (2021) have also described in their studies that there is a surge in online purchasing activities by Gen Y in the Klang Valley compared to other generations. The outcome from 403 sets of online surveys conveyed that satisfaction, brand involvement, and technology have directed Gen Y to purchase online. These significant attributes are derived from the substantial role of e-commerce, particularly in the fashion industry, where consumers easily access platforms for locating products, shopping using virtual charts, and checking out items.

When a comparison is made between generations, Gen Y (the Millennials) and Gen Z, in the years 2020 and 2021, purchasing online clothes appeared to be 1% higher among the Millennials (58%) than Gen Z (57%). The report from Vuleta (2022) also added that 76% of Millennials intended to buy online in the year 2020 compared to 69% of Generation Z. A survey conducted the following year showed an increasing trend in online shopping among these generations, with 56% of them using social platforms as the method of buying. The report also revealed that 81% of Generation Z and Millennials found items through mobile Apps (Froehlich, 2022). Meanwhile, the study by Hisham, Ismail, and Syed Mohamad (2023) investigates Malaysian consumer income and spending behavior during the COVID-19 pandemic, incorporating insights from Maqāṣid Al-Sharī'ah. It offers a unique perspective on the impact of ethical considerations on economic decisions in challenging times.

The trend of online purchases will continue to increase in 2022 and remain popular among the young generations in Malaysia. A survey by Apparel Resources News-Desk (2022) described that shopping for fashion is the most popular online category of the year, with retail sales up 20.9% in April. The data from a survey among 1005 Malaysians aged 18 to 74 shows that fashion, including apparel, is the most popular category. The result indicated that 50% of them were attracted to online shopping. Shopee is the most preferred online platform, utilised by 79% of them to purchase their products, followed by Lazada with 21%.

However, the emergence of a different purchasing landscape (online) among the new generations has made ones wonder about the existence of the traditional method of shopping through physical stores. Will there ever be a sensation in looking, touching, and observing the physical clothing from the same frequented store? Will these tech-savvy consumers shift their purchasing habits to physical rather than virtual? Does their purchasing power remain constant? Subsequently, a survey conducted by Property Hunter (2022) among Malaysians, in general, stated that 52% of respondents believed that traditional retail would return to a normal state. And 65% preferred in-store clothing shopping compared to online shopping. Adyen (2022) also revealed the outcome of a survey that after a prolonged period of limited access to physical stores, customers have the willingness to renew their appreciation for shopping offline.

The result described that 59% of customers enjoyed touching, feeling, and trying products before buying, while 61% would be more loyal to the brand if they could return online orders in-store. Malaysia needs at least 20 years to fully transform into a cashless society (FMT News, 2019). The COVID-19 crisis can change people's behaviour as a result of the contagion period, self-isolation and economic uncertainty (Kohli, Timelin, Fabius, & Veranen, 2020).

Hence, it is essential to find out if the COVID-19 crisis is a stimulating factor that motivates consumers in Malaysia to use cashless payment? This study was carried out to investigate the relationship between personal characteristics and the behavioural attitude of new generations in Malaysia toward revisiting their patronised clothing store in the post-pandemic era. The research delimits the scope of observation to Generation Y and Generation Z in the Klang Valley area, where the relationships between personal characteristics (need for activity, impulsiveness, shopping confidence, interpersonal influence susceptibility, utilitarian and hedonic shopping orientations) and re-patronage behavioural intention were observed. By conducting this research, it is hoped that the needs and behavioural attitudes of the generations could be studied to interrelate the attitude between generations further.

## Literature Review

### *COVID-19 Scenario*

During the crisis, the World Health Organization (WHO) is encouraging people to use cashless transactions to limit the spread of the virus. The healthy behaviour theories such as the health belief model and protection motivation theory describe that people will adjust their behaviour in order to preserve their life from health events like COVID-19. The health belief model postulates that the likelihood people adopt a behaviour is predicted by their belief in a personal threat of a disease and their belief in the effectiveness of the recommended behaviour of action. The behaviour action depends on benefits to action, barriers to action, self-efficacy, cues to action, risk susceptibility, and risk severity (Becker, 1974; Champion & Skinner, 2008). Additionally, the protection motivation theory predicts people's protective behaviour (Rogers, 1975). According to Rogers (1975), fear is an important factor in predicting the behaviour and explaining the cognitive process that is involved. These two theories show that people will cognitively adjust their behaviour to avoid the infections of the COVID-19 virus. Cashless payment is an alternative payment method. It allows the financial transactions to be completed under the conditions of quarantine, social distancing, and maintaining personal hygiene. These are essential preventive measures to combat COVID-19. The crisis has negatively impacted almost all of the sector, but it has had a positive impact on remote services, such as digital financial services (Kasradze, 2020). Hence, the crisis is likely to increase the adoption of technology and digital services.

### *The Impact of COVID-19 on Consumer Behavior*

The onset of the COVID-19 pandemic has resulted in a myriad of changes in consumer behavior globally. Lockdowns, social distancing measures, and health concerns have compelled consumers to reconsider their traditional shopping habits, with a noticeable surge in online shopping reported across different regions (Verma & Prakash, 2020). Studies have emphasized the acceleration of e-commerce adoption during the pandemic as consumers seek safer and more convenient alternatives to in-store shopping (Brouwer et al., 2021).

### ***Apparel Retailing in the Context of COVID-19***

Apparel retailing, being a sector heavily reliant on physical stores and in-person experiences, has faced unique challenges during the pandemic. Research indicates that the clothing and apparel industry has witnessed a substantial shift in consumer preferences, with a growing inclination towards online channels for clothing purchases (Charm et al., 2020; McKinsey & Company, 2020). These changes may be attributed to concerns about hygiene, safety, and the convenience offered by online shopping platforms.

### ***Factors Influencing the Shift to Online Apparel Purchases***

Several factors contribute to the shift from physical to online apparel shopping during the COVID-19 crisis. Research suggests that perceived risk of infection, government regulations, and the convenience of online shopping platforms play pivotal roles in shaping consumer choices (Choi et al., 2021). Additionally, studies have highlighted the role of digitalization, technological advancements, and changes in consumer attitudes toward e-commerce as driving forces behind the observed shift (Zhang & Ma, 2020).

### ***What Is A Cashless Economy?***

Cashless economy refers to the economic activity in which digital payment methods are used for transactions instead of cash (Tee & Ong, 2016). Transactions are made either via internet banking, debit or credit cards, or mobile wallet (Gadge & Rai, 2019). Due to smartphone technology, the use of mobile payments in performing cashless transactions has risen rapidly and become the norm in countries such as China, Japan and South Korea (Miao & Jayakar, 2016). While cashless transactions continue to grow globally, the Malaysian government continues to promote a cashless society to boost Malaysia's economy (Ali et al., 2019). In order to attract citizens to adopt cashless payments, the government has offered a RM30 e-wallet incentive for all Malaysians of 18 years and above (Tariq et al., 2020).

Cashless payments have now become one of the most essential aspects of the global economy, and they are regarded as key determinants to economic growth. Recent studies reported that users among young generations from various age groups are tremendously growing in some countries. The active cashless users are Gen Z who are in the age range of 5 to 21 years and Gen Y aged from 22 to 38 years (Haroon, 2020). Young generations are more exposed to e-commerce platforms and ready to use cashless payment systems. According to a survey, mobile banking systems are the most preferred method of payment, with 69 percent of Malaysian respondents using them more frequently during the pandemic (Azman, 2020). According to the report, 75% of Gen Y prefer mobile banking to 76% of Baby Boomers who choose Internet banking.

Many factors have caused this surge in cashless payment. The transaction is generally said to be cost-effective, growth-friendly, business-friendly, pro-financial inclusions, and others (Maurya, 2019). The simplicity of conducting transactions attracts people to switch to the digital mode. Users feel convenient and can stop worrying about not having enough cash or queuing for cash withdrawal (Maulana, Wiryono, & Purwanegara, 2018).

Moreover, cashless payment mode makes it easier for people to spend and is a safer option while travelling (Chin, 2019). Some users adopt digital payment to take advantage of the discounts such as, a series of freebies or merchandise discounts (Gordon-Hecker, Pittarello, Shalvi, & Roskes, 2020; Li, Chu, Zhou, & Zhao, 2020). Prior research in Malaysia reported that e-wallet benefit the users when it provides great incentives such as promotions and



cashback (Yi & Perera, 2019). In certain circumstances, the use of e-payment or online payment has become compulsory. For example, due to COVID-19 pandemic outbreak, global users chose to pay via credit or debit card when shopping online. Moreover, going cashless can speed up the transaction process and improve the efficiency for the users. Some users discovered that the Electronic Payment System (EPS) was easier, faster, and more accurate (Harris, Guru, & Avvari, 2011). Other than that, it was also found that social influence had an impact on the acceptance and recommendation of a cashless payment system. However, social influence does not have a strong effect on millennial users because they are ready to take risks in adopting new technologies (Cheng, Khim, & Thai, 2018). The right to perform transactions from any location at any time, quicker, safer and reducing physical contact during pandemics are among other factors behind the use of a cashless system (Puat, 2018).

Of late, huge money transactions are active over the internet, because it is easier and more convenient. However, the main concern in online transactions revolves around the issue of privacy and security (Udo, 2001). Cashless transactions pose a challenge in security which is the main concern for organisations and individuals as both parties want to secure their interest against unauthorised access, uses, alteration, and destruction (Muthaiyah, Ernest, & Wai, 2011). As reported, there are many cases of credit card holders' data being hacked, exposing them to the failure of financial institutions to secure electronic money (Lee, 2019). Furthermore, poor security awareness, low level of securing transaction devices, and poor understanding of the financial ecosystem are some of the reasons exposing the user to security risks (Koyuncu & Pusatli, 2019).

### **Who are the Millennials: Definition and Related Issues**

Individuals who fall into one of the current age groups share common interests, observations, norms, and lifestyles, which have an impact on their purchasing decisions and characterise them as consumers. Studying the distinctive traits of various age groups provides a strong foundation for entrepreneurs aiming to construct successful communication strategies and methods for brand development (Naumovska, 2017).

Researchers commonly define millennials (or Generation Y or Gen Y) as the demographic cohort born between the early 80s and the late 90s (Lohman, 2021). Some researchers found that traditional marketing models are not working on Generation Y consumers. They believe that the decision-making process of Generation Y consumers is very complicated and that their behaviours differ (Lister, 2022). According to their research, social media is the most effective technique to target the Generation Y consumer category (Davidavičienė, Raudeliūnienė, & Viršilaitė, 2019). Every generation has unique traits and qualities. Nonetheless, researchers and practitioners are searching for innovative ways to create new marketing strategies that suit each generation. For instance, Generation Y focuses more on technology. In order to promote a product, marketers should focus on the use of technology, hence the appearance of E-marketing. E-marketing emerged because marketers focused on the use of technology to sell products. Marketers continue to approach consumers through all the applications on their phones, especially those with social media features, whether it be on Facebook, Instagram, Twitter, or even YouTube, and sometimes even harass them.

Generation Y was born between 1980 and 2000 (Iberdola, 2018). They are Baby Boomer generation descendants and grew up during a period of constant economic and global change, including the ascent of female leaders, movements for racial and cultural inclusion, ecological and social awareness, the development of technology, electronics, and the digital age, as well

as processes affecting the world economy. In terms of marketing communication, marketers face a real challenge when trying to capture the attention of the audience – members of Generation Y (McGuire, 2023). Compared to Baby Boomers and Xers, they are less likely to respond favourably to commercial cues. More visuals, graphics, animations, and videos need to be used by marketers. The language of storytelling and challenging words must be used by creative designers when crafting copy. They react favourably to comedy and reject overly sombre commercial messaging. They are little interested in media on television (Kalogeropoulos, 2019) and are more related in social media, interactive platforms, and fond of fast communication: instant messaging, texting, and social media platforms: Facebook and Twitter. Content is most important for Gen Y (Fairlie, 2022).

Generation Z, or Gen Z, is the youngest generation, consisting of those born after the year 2001 (Iberdola, 2018). They experienced the global financial crisis, the economic downturn, and parallel negative trends leading to their childhood loss (Lisa, 2021). However, members of Generation Z are restrained, conscious, and responsible. Since they have never lived without the internet, they are accustomed to using high-tech and multimedia equipment. They enjoy imagination and are prepared to go on a mission. They show the least loyalty to products and employers. The three basic characteristics of Generation Z are instant gratification, gamified success, and open-minded social values (Giray, 2022). Fashionable wardrobe, music, fashion, cosmetics, and online games are very important products for Generation Z. Marketers should be aware that Generation Z is easily dealt with and manipulated with technological devices; hence intensively exposed to digital and social media. In Malaysia, e-commerce will grow in 2020 and increase in the future. Though Malaysian Generation Zs and Generation Y (Millennials) do not see eye-to-eye on everything regarding online shopping, there is the only issue on which they agree wholeheartedly on the future of e-commerce in the country. When asked whether they will spend more online in 2022, more than 2 in 3 (69%) Generation Zs and 3 in 4 (76%) Generation Y (Millennials) responded that indeed they would (Rajeck, 2020).

The population growth is declining in Malaysia. Generation Y (26%) and Generation Z (25%) are the largest generational groups in Malaysia, followed by Baby Boomers (13%) and Generation X (18%) (Woldometer, 2020). Statistics reveal that more than 40 % of the country's population belongs to the Generation Y age group (IvyPanda, 2021). Currently, most of them are in their mid or early twenties and are joining the work environment as young professionals. The generation, also commonly referred to as millennials, has been found to be the fastest-growing workforce segment. Currently, half of the world's population is below the age of 30. However, a survey conducted by PricewaterhouseCoopers (2022) on the Malaysian Generation Y reveals that the group is most interested in flexible working hours in the work environment.

The majority of Generation Z is composed of Malay ethnicity, followed by Chinese and Indian. The male population of Generation Z stands at 52% and the female at 49% (Woldometer, 2020). The first generation in Malaysia to have grown up with digital technologies, Gen Z has been proven tech-savvy and quick to adapt to technological changes. Members of Gen Z are exposed to technology by their parents at a relatively young age since they are raised by members of Generation X, who are more educated than Baby Boomers.

This group, with 98% of Internet and 99% smartphone penetration (Statista Research Department, 2022), are early adopters of the quickly evolving technology, and social media plays a significant role in their daily lives. They frequently use Instagram, Snapchat, Twitter, Reddit, and other related websites and services. Malaysia's Generation Z is typically family-oriented and values spending time with loved ones. According to Paul (2017), most of them

were raised by grandparents or live-in servants, which may have impacted their close bonds with their families. Their reluctance or awkwardness to communicate with others outside their family may account for the closeness and opulent lifestyle. Millennials, who make up 50% of Malaysia's working population and are between the ages of 26 and 40, are driving this trend (Subramaniam, 2022). In contrast to their predecessors, members of Generation Z, who are between the ages of 18 and 25, demand direct control over their money and are technologically smart enough to use cutting-edge tools to make it happen.

### **Shopping Behaviour Buying Power and Habits**

People's lives have been influenced by the multiple changes brought about by COVID-19, particularly in terms of consumer behaviour. Both online and offline, consumers are obsessively purchasing goods. In fact, some people have even described shopping as a form of therapy. Retail therapy is a misnomer, though, when it comes to it (Brain & Spine, 2021). On the other hand, COVID-19 has resulted in a significant expansion of online buyers' purchasing patterns. Numerous firms' revenues were significantly impacted by the rise in online buyers. The e-commerce leader of the region appears to be Malaysia. It is significant that from 2020 to 2021, there was a 47% growth in internet shoppers. In fact, 88 % of Malaysia's overall population are now digital consumers, compared with the Southeast Asian (SEA) average of 78 %. Malaysia is also ahead of Indonesia, 81 %, and Singapore, 79 %. (Digital News Asia, 2021).

By the end of 2021, nine out of ten Malaysians are expected to make online purchases (Vasanth, 2021). Before deciding to make a purchase, consumers not only spend 80% of their time online but also search around on up to seven different websites. According to Facebook and Bain & Co in their recent retail study, up to 22 million Malaysians use digital devices, and online channels are four times more important than traditional ones. Another interesting research by Vasanth (2021) described that 63% of online shoppers have no notion of what they want to buy before they start "shopping." People used to have an idea in the past and look for it. Now, thanks to the proliferation of Internet platforms, they prefer to shop compulsively to discover new products online. In fact, small businesses in Malaysia boosted their reliance on digital technology in response to the COVID-19 epidemic, placing 40% more of their emphasis on online sales than the year before. According to the report, social media is a key tool for the industry, with more than 60 % utilising it to advertise their brand and 55 % communicating with consumers (New Straits Times, 2022).

Malaysia is one of the world's top markets for social commerce adoption, given its social media penetration rate of 89%, with a high likelihood of social media users converting into paying customers. Due to the country's large population of nearly 32 million people, approximately half of whom are digitally savvy consumers aged 18 to 54, with an internet penetration rate of 75%, about 26 million are active social media users, and the country finds it such a favourable situation. Above all, e-commerce adoption is high, with more than 66.6% of people purchasing a product in 2022 (Digital Business Lab, 2021). A recent study conducted by Katrina and Leong (2019) provides four interesting insights about online shopping habits in Malaysia: (1) more women than men make online purchases (58% vs. 42%); (2) the majority of online shoppers are from the young generation, i.e., people aged between 25 and 34 (51%) and between 18 and 24 (24%); (3) the most popular products purchased online by Malaysians include food delivery, travel, clothing, cosmetics, and sports, with an average order value of US\$41, and (4) most of the transactions are made on computers (68%), followed by smartphones (31%) and tablets (1%) (Janio, 2019). Online purchases via smartphones are estimated to grow significantly and



will be the dominant device soon. Mobile commerce leads all customer-accessible shopping channels (Stanley, 2022), and with the rising internet penetration rate of 83%, the number of active social media users has also increased in Malaysia. As of April 2021, nearly 26 million Malaysians are active on different social media platforms. This number is expected to increase further with the growing adoption of smartphones among consumers over the next four to eight quarters (Research & Markets, 2022). PricewaterhouseCoopers (PwC) found that social media influences more than half of Malaysian consumers' online and in-store shopping behaviours in a global survey of more than 8,700 customers across 22 countries. Consumers have developed new habits that we think will continue even after the pandemic passes (Malaysia Kini, 2021).

Additional research has unveiled compelling insights into the media consumption habits and preferences of Malaysian Generation Y and Generation Z. On average, these demographics spend approximately 3 hours daily on social media, finding inspiration for purchases during their online interactions (Digital Business Lab, 2021). Notably, WhatsApp leads the social media platforms with an impressive 93.2% penetration rate, followed by Facebook at 88.7% and Instagram at 79.3% (AsiaPac, 2022). A shift in consumption patterns is evident, with Generation Z in Malaysia favoring social media over traditional channels like TV, radio, and print media (Nielsen, 2019). Further insights from the study shed light on the distinctive characteristics of Generation Z in Southeast Asia, particularly in Malaysia (Shaw, 2021). Notable findings include a strong belief, surpassing the global average, that their generation holds the power to influence brands positively, reaching 89% in the Asia Pacific region. There's a recognized role for brands in supporting Asian Generation Z during challenging times, with 62% acknowledging this. Moreover, 69% of Generation Z in the Asia Pacific region, including Malaysia, is consistently seeking the next trend, while 60% globally share the same sentiment. This demographic expects brands to fuel their creativity, embracing experimentation with genres, styles, and local references. Importantly, they express a willingness to support companies that align with their values, signaling a belief in brands as influential agents for positive change (Shaw, 2021). These findings underscore the need for marketers to provide the young Malaysian generations with a sense of control and personalized communication. Recognizing the power of social media and understanding the values and expectations of Generation Y and Generation Z, marketers can strategically tailor their approaches to resonate with these dynamic and influential consumer segments.

### **Methodology**

For this Quantitative research study, questionnaires were distributed in-person and online to over 400 respondents within the generations (Generation Y and Generation Z) through random sampling through 209 responses to the questions. The survey was penetrated to respondents who experienced online buying, middle-income groups, had just completed graduation, and were students in the profession. A set of questionnaires was formed to understand whether pleasure and effective qualities will influence them to look forward to purchasing apparel in a new dimension of shopping. Emphasis falls into these sorts of factors, price, convenience, and health aspects.

### **Analysis, Discussion and Findings**

In this discussion, the findings obtained from the analysis based on the questionnaire were explained. In this part, the results were generated from the questionnaire derived from 209 respondents. The data were analysed by *Statistical Package for The Social Sciences (SPSS), Version 23 For Windows*.

The results of this study support that perceived enjoyment and utilitarian attributes (price, convenience, and health aspects) positively affect online buying attitudes along with the relationship between personal characteristics and their re-patronage behaviour. Generation Y and Generation Z find the functions and activities of online purchases straightforward, which derives a positive attitude toward this platform.

**Reliability**

Reliability is an important aspect of research. This is intended to demonstrate how these findings accurately reflect the situation accurately studied. Most researchers use Cronbach's Coefficient Alpha ( $\alpha$ ) to measure the reliability of the questionnaire items. As seen in Table 4.1, the element showed the result is good. The relationship between personal characteristics and re-patronage behavioural intention is 0.767. Every questionnaire item is valid because Cronbach's alpha is greater than 0.7. So, the data in this study can be classified as good and adequate for this research.

**Table 1: Test of Reliability**

Item	Cronbach's Alpha	N of items
Relationship Between Personal Characteristics and Patronage Behavioural Intention	0.767	6

**Factor Analysis**

Factor analysis is part of a test to determine the validity of the constructs. The Kaiser-Meyer-Olkin and Bartlett's test of sphericity was conducted. Then the value is 0.6, or above variable is significant, and the correlation between the item and the study was high enough for this analysis.

Table 2 shows the factor analysis for each variable. The relationship between personal characteristics and re-patronage behavioural intention showed that the result of Kaiser-Meyer-Olkin is 0.769, and Bartlett's Test of Sphericity is. Thus, when the Kaiser-Meyer Olkin for the variable is more than 0.6 and the significant value  $p < 0.05$ , the variable is statistically significant and correlated.

**Table 2: Test of Reliability**

Item	Kaiser Meyer Olkin	Bartlett's Test of Sphericity
Relationship Between Personal Characteristics and Re-Patronage Behavioural Intention	0.769	0.000

### ***Normality Test***

A normality test is used in statistics to determine whether a data set is well-modelled by a normal distribution. It is important to determine the types of tests used based on the research objectives. Based on Table 3, the test of the relationship between personal characteristics and re-patronage behavioural intention and shopping orientation between personal factors and re-patronage behavioural intention is 0.00, which is  $p < 0.05$ . Hence, the skewness and kurtosis showed the value of all factors is between -2 to 2, which is 0.016 and -0.328, respectively, and -0.350 and -0.270, respectively. This means there is a normal distribution, and the test should be conducted using a parametric, although all items are shaped Likert scale.

**Table 3: Test of Normality for Each Element**

Item	Significant	Skewness	Kurtosis
Relationship Between Personal Characteristics and Re- Patronage Behavioural Intention	0.000	0.016	-0.328

### ***Descriptive Statistics***

Descriptive statistics are used to explore the data collected and to summarize and describe them using a table, figure, frequency, percentage, mean and standard deviation. This study involves the relationship between personal characteristics and re-patronage behavioural intention among Generation Y and Generation Z.

### ***Respondent Demographic***

Table 4 shows the distribution of frequency and percentage of the demographic respondents. The gender showed male respondents involved are 47 respondents (22.5%) and 162 respondents (77.5%) of them are females. Hence, it showed that the number of females is highest compared to male respondents.

Next, the age showed that 77 respondents (36.8%) are between 18 to 20 years old. There are followed by 113 respondents (54.1%) between 21 to 25 years, 11 respondents (5.3%) between 26 to 30 years, 4 respondents (1.9%) between 31 to 35 years, 1 respondent (0.5%) between 36 to 40 years, and 3 respondents (1.4%) are 41 and above. This illustrated that the highest number of respondents is between 21 to 25 years, and the lowest allocated by the respondents is between 36 to 40 years.

Then the marital status showed 195 respondents (93.3%) are single, followed by married with 12 respondents (5.7%), and 2 respondents (1%) are another status. This represented that the highest number of respondents are single and the lowest is from other statuses.

According to the educational level showed, the majority of the respondents hold a bachelor's degree and equivalent with 118 respondents (56.5%), followed by Diploma and equivalent with 71 respondents (34%), and SPM and equivalent are 14 respondents (6.7%). Meanwhile, the minority of the respondents are Master and above, with 6 respondents (2.9%).

Regarding household income, 64 respondents (30.6%) have less than RM 1000 and between RM 1001 and RM 3000. There is followed by 36 respondents (17.2%) between RM 3001 and RM 5000, 19 respondents (9.1%) between RM 5001 to RM 7000, and 13 respondents (6.2%) between RM 7001 and RM 9000 and above RM 9001. This illustrated that the highest number of respondents is below RM 1000 and between RM 1001 and RM 3000, and the lowest allocated by the respondents is between RM 7001 to RM 900 and above RM 9001.

According to the monthly budget allocation for shopping showed, 42 respondents (20.1%) do not have a budget allocation. There is followed by 44 respondents (21.2%) less than RM 20, 38 respondents (18.2%) between RM 20 to RM 25, 40 respondents (19.1%) between RM 35 to RM 40, 19 respondents (9.1%) between RM 45 to RM 50 and 14 respondents (6.7%) more than RM 50. This illustrated that the highest number of respondents was less than RM 20 and the lowest allocated by the respondents was more than RM 50.

The data on working from home showed the majority of respondents do not work from home, with 167 respondents (79.9%), and the minority of the respondents working from home with 42 respondents (20.1%). Next, the working from the office showed that most respondents do not work from the office, with 169 respondents (80.9%), and the minority of the respondents working from the office was 40 respondents (19.1%).

Besides that, the finding on purchasing apparel or fashion products through an online platform showed that most respondents use an online platform, 159 respondents (76.1%), and the minority of the respondents do not choose the online platform, 50 respondents (23.9%). Next, the purchase of apparel or fashion product through an offline platform showed that the majority of respondents used offline platforms 163 respondents (78%), and the minority did not choose the offline platform 46 respondents (22%).

Other than that, regarding the news about COVID-19 updates, showed the majority of the respondents follow the news at least once a week with 106 respondents (50.7%) followed at least once a day with 54 respondents (25.8%) and less than once a week with 45 respondents (21.5%). Meanwhile, a minority of the respondents never follow news about COVID-19 updates, with 4 respondents (1.9%).

Besides that, the frequent shopping in the shopping mall (offline) before the pandemic occurred showed a majority of the respondents shopped once a month with 68 respondents (32.5%), followed by once every 3 months with 47 respondents (22.5%), once every 6 months with 36 respondents (17.2%), once a week with 27 respondents (12.9%) and several times a week with 16 respondents (7.7%). Meanwhile, the minority of the respondents shop once a year, with 15 respondents (7.2%).

Next, the frequent shopping in a shopping mall after the pandemic happened showed the majority of the respondents shopped once a year 66 respondents (31.6%), followed once every 6 months by 50 respondents (23.9%), once a month by 38 respondents (18.2%), once every 3 months with 37 respondents (17.7%) and once a week with 14 respondents (6.7%). Meanwhile, the minority of the respondents shop several times a week, with 4 respondents (1.9%).

Based on the comfortable purchasing apparel in shopping malls during the pandemic showed, the majority of the respondent's neutral with 81 respondents (38.8%), followed by uncomfortable 55 respondents (26.3%), comfortable with 42 respondents (20.15), and strong



uncomfortable 22 respondents (10.5%). Meanwhile, the minority of the respondents are strongly comfortable, with 9 respondents (4.3%).

**Table 4: Demographic Respondent**

<b>Demographic</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Gender</b>		
Male	47	22.5
Female	162	77.5
<b>Age</b>		
18-20 years old	77	36.8
21-25 years old	113	54.1
26-30 years old	11	5.3
31-35 years old	4	1.9
36-40 years old	1	.5
41 and above	3	1.4
<b>Marital Status</b>		
Single	195	93.3
Married	12	5.7
Others	2	1.0
<b>Employment Status</b>		
Self-Employed	22	10.5
Public Sector	9	4.3
Private Sector	21	10.0
Retiree	157	75.1
<b>Education Level</b>		
SPM and equivalent	14	6.7
Diploma and Equivalent	71	34.0
Bachelors and equivalent	118	56.5
Masters and above	6	2.9
<b>Household Income</b>		
Below 1000	64	30.6
Between 1001 and 3000	64	30.6
Between 3001 and 5000	36	17.2
Between 5001 and 7000	19	9.1
Between 7001 and 9000	13	6.2
Above 9001	13	6.2
<b>Monthly Budget Allocation</b>		
No budget allocation	42	20.1
Less than RM 20	44	21.1
RM 20-RM 25	38	18.2
RM 25 - RM 30	40	19.1
RM 35 - RM 40	19	9.1
RM 45 -RM 50	14	6.7

More than RM 50	12	5.7
<b>Working From Home</b>		
No	167	79.9
Yes	42	20.1
<b>Working From Office</b>		
No	169	80.9
Yes	40	19.1
<b>Purchase Fashion apparel through the online platform</b>		
No	50	23.9
Yes	159	76.1
<b>Purchase Fashion apparel through the offline platform</b>		
No	46	22.0
Yes	163	78.0
<b>Follow News COVID-19 news</b>		
Never	4	1.9
Less than once a week	45	21.5
At least once a week	106	50.7
At least once a day	54	25.8
<b>Frequent Shopping Before the pandemic</b>		
Once a year	15	7.2
Once every 6 months	36	17.2
Once every 3 months	47	22.5
Once a month	68	32.5
Once a week	27	12.9
Several times a week	16	7.7
<b>Frequent Shopping After the pandemic</b>		
Once a year	66	31.6
Once every 6 months	50	23.9
Once every 3 months	37	17.7
Once a month	38	18.2
Once a week	14	6.7
Several times a week	4	1.9
<b>Comfortable Purchase Apparel</b>		
Strongly Uncomfortable	22	10.5
Uncomfortable	55	26.3
Neutral	81	38.8
Comfortable	42	20.1
Strongly Comfortable	9	4.3

***To Investigate The Relationship Between Personal Characteristics And Re-Patronage Behavioural Intention***

Table 4.5 represents the classification of the relationship between personal characteristics and re-patronage behavioural intention. As shown in the table, a substantial majority of the

respondents strongly agree that “I still believe apparel shopping is a rewarding and relaxing activity, either online or offline” (48.3%). This was followed by “I believe in “touch and feel” the apparel before the purchase process happens” (46.9%) and “The choices of apparel either online or offline must suit with the apparel values, brand, and comfort” (44.5%). Besides that, respondents also choose to agree that “My choices of apparel are currently being improved either through online or offline purchase” (41.1%). As seen in Table 4.5, the respondents reacted to the relationship between personal characteristics and re-patronage behavioural intention. Next, the highest mean showed the respondents agree about “I still believe apparel shopping is a rewarding and relaxing activity, either online or offline” (with a mean of 4.296, SD=0.801). Meanwhile, the lowest mean showed the respondent less agree about “My choices of apparel are currently being improved either through online or offline purchase” (with a mean of 3.918, SD=1.022). The overall mean relationship between personal characteristics and re-patronage behavioural intention is 41.2, and the standard deviation is 0.596. Generally, these show that the respondents agree about the relationship between personal characteristics and re-patronage behavioural intention.

**Table 5: Relationship Between Personal Characteristics And Re Patronage Behavioural Intention**

Statement	Strongly Disagree	Disagree	Less Agree	Agree	Strongly Agree	Mean	Standard Deviation
I believe in "touch and feel" the apparel before purchase process happen.	1 (0.5%)	9 (4.3%)	8 (18.2%)	63 (30.1%)	98 (46.9%)	.186	.913
I love to purchase apparel in a shopping mall, where emotions are irreplaceable in the digital world.	2 (1%)	9 (4.3%)	6 (22%)	75 (35.9%)	77 (36.8%)	.033	.921
My choices of apparel are currently being improved either through online or offline purchase.	1 (0.5%)	2 (1%)	4 (25.8%)	86 (41.1%)	66 (31.6%)	.023	.811
I will browse related website and do window shopping before I purchase any apparel.	4 (1.9%)	1 7 (8.1%)	4 3 (20.6%)	7 3 (34.9%)	72 (34.4%)	3	1.022
The choices of apparel either through online or offline must suit with the apparel values, brand, and comfort.	0 (0%)	3 (1.4%)	3 2 (15.3%)	8 1 (38.8%)	93 (44.5%)	4	0.767

I still believe apparel shopping is a rewarding and relaxing activity, either through online or offline	1 (0.5%)	3 (1.4%)	3 (14.4%)	7 (35.4%)	10 (48.3%)	4 .296	0. 801
Overall			4.12		0.596		

The survey represents the classification of the relationship between personal characteristics and re-patronage behavioural intention. Generation Y (Millennials) and Generation Z are shopping more on social platforms, where they find the functions and activities of online purchases very straightforward and easy, resulting in a positive attitude towards this platform. A large majority of the respondents (48.3%) strongly agreed that apparel shopping is a rewarding and relaxing activity, either online or offline. Some Generation Y and Generation Z enjoy online shopping because it allows them to look for information about the products or services available on different websites or brands. There are (46.9%) of Generation Y and Generation Z believed in “touching and feeling” the apparel before they made their apparel purchase. The need for touching and feeling leads some consumers to prefer shopping for apparel purchases at brick-and-mortar instead of online and use traditional search instead of online search. Despite the hurdles, technological innovations, such as the evolution of the web, have changed how people consume products and services, seek information, and shop, increasing online purchases and the likelihood of online shopping.

The respondents’ online or offline apparel choices must suit the apparel values, brand, and comfort (44.5%). Results showed that the need for activity, impulsiveness, shopping confidence, interpersonal influence susceptibility, utilitarian and hedonic shopping orientations are significant predictors of clothing interest among Generation Y and Generation Z consumers in Malaysia, and price consciousness moderated the relationship between their clothing interests and purchase intention. Therefore, consumers are able to compare prices or feature differences to make their best choice. When consumers do online shopping, they will have an opportunity to read through other customer reviews regarding the product before making a decision. At the same time, traditional in-store shopping cannot provide customer reviews. This is one of the online shopping benefits to consumers. The respondents also agree that their apparel choices are currently being improved either through online or offline purchases (41.1%).

In general, these show that the respondents agree about the relationship between personal characteristics and re-patronage behavioural intention.

### Conclusion

The study came to the conclusion that, despite their extreme price sensitivity and availability for anytime, anywhere shopping, Generation Y and Generation Z preferred making purchases online. It has demonstrated that people believe price and convenience to be more beneficial than variety. Due to the closure of physical retail locations during the pandemic, online retailing has emerged as a way to satisfy customers. Even though Malaysia has a growing number of online shoppers overall, there are still several obstacles that have created problems for online shopping, particularly for Generation Y and Z. The foreseen obstacles and challenges are ruled out as below:



- a) While technological advancements continue to progress in Malaysia, a significant portion of the B40 (low-income) demographic lacks proficiency in utilizing digital tools for their everyday needs, opting instead for traditional methods such as cash transactions to fulfill their daily necessities.
- b) Ensuring a seamless online presence involves more than just being connected, it demands tech-savvy individuals adept at navigating evolving digital landscapes. The trends and seasonal items notifications by the fashion brands are difficult to be sourced by consumers unless they have an avid shopping app and receive notifications from the brand itself. Not all consumers relate to the apps unless they are VIPs of the brands (Charm et al., 2020). Some consumers, unfamiliar with the intricacies of website content, find it difficult to engage fully. Moreover, the ability to make online apparel purchases hinges on possessing reliable gadgets and a robust internet connection.
- c) In general, to the conventional practice of physically assessing options in traditional shopping, the online shopping paradigm necessitates potential buyers to assess goods through visual images and internet-based reviews, devoid of tangible contact or reference. Some consumers believe that "touch and feel," and *brick-and-mortar* stores are important to experience the product (Skrovan, 2017). Emotion is irreplaceable in the digital world.

The findings highlight a robust determinant influencing consumers' inclination toward adopting cashless payments. Consumer willingness to embrace cashless transactions sees an uptick as they perceive the associated benefits. Notably, the COVID-19 crisis has positively and significantly influenced consumers' perceptions of performance expectancy, as evidenced during lockdowns when cashless payments proved effective in facilitating purchases and financial transactions, mitigating the risk of virus transmission in contactless transactions. Furthermore, consumers are enticed by incentives like rewards and cashback bonuses offered by cashless payment providers, aligning with established studies such as Tarhini, El-Masri, Ali, and Serrano (2016) and Venkatesh (2000b). The second pivotal factor influencing consumers' behavioral intention towards cashless payments is the ease of use, supported by the simplicity of cashless payment systems according to studies by Bhatiasevi (2016), Friadi, Ujang, & Kirbrandoko (2018), and Sarfaraz (2017).

This research underscores the significant and positive impact of the COVID-19 crisis on consumers' perception of effort expectancy, particularly in light of the increased reliance on technology during remote work and stay-at-home measures. The heightened use of technology has, in turn, augmented individuals' proficiency in operating cashless payment systems independently. Moreover, the study reveals a noteworthy positive relationship between social influence and the behavioral intention to use cashless payment, with COVID-19 playing a substantial role in shaping consumers' perceptions of social influence in this context. Given that the majority of respondents fall within the 18 to 24 age group, susceptibility to peer pressure and family influence is evident, aligning with findings from Do, Prinstein, and Telzer (2020) and Hollifield & Conger (2015), respectively. Stress induced by the health crisis further amplifies the impact of influential figures on decision-making, in concordance with previous research by Bhatiasevi (2016) and Savić and Pešterac (2019).

Additionally, the study reveals a significant and positive influence of the COVID-19 crisis on consumers' perceptions of facilitating conditions, propelled by a surge in online selling by merchants during lockdowns. The government's distribution of stimulus packages through

cashless methods further reinforces the perception that infrastructure, facilities, resources, technical support, and knowledge support the use of cashless payment. However, while facilitating conditions are acknowledged as essential, the study indicates no direct relationship with the behavioral intention to use cashless payment. This resonates with findings from Boonsiritomachai and Pitchayadejanant (2019), emphasizing the indirect impact on behavioral intention mediated through effort expectancy. The burgeoning growth of e-retailing reflects the compelling advantages of online shopping, enhanced by technological advancements. The introduction of digital technology, coupled with shifts in apparel retail and trends, offers consumers the opportunity to assess fit, texture, and color. The study envisions a future where brick-and-mortar consumers seamlessly transition into e-treatment shopping, facilitated by facial recognition technology and Internet of Things (IoT) systems. This vision underscores the evolving landscape of consumers' retail experiences.

Despite valuable insights, the study acknowledges limitations. The focus on Generation Y and Generation Z limits generalization, and the use of random sampling could yield different results. Data collected during the pandemic may not represent normal circumstances or other country contexts. The dominance of younger, college-educated respondents suggests caution in generalizing findings. Future research is encouraged to delve into millennial respondents and incorporate external factors like cybersecurity risks for a comprehensive understanding of cashless payment adoption. The study, conducted through online surveys during movement control restrictions, navigated pandemic challenges effectively. However, the recommendation for future research includes investigating post-adoption behavior, measuring satisfaction, and exploring fraud management frameworks, crucial in the evolving landscape of cashless payment in the "new normal" of life.

### Acknowledgement

This research is made available under the terms of the Institut Pengajian Siswazah (IPsIs), Universiti Teknologi MARA (Kedah Branch), Management Center (RMC) and Research Nexus (ReNEU) Universiti Teknologi MARA, which permits unrestricted use, distribution, and reproduction in any format, as long as the original author(s), source, and any changes are properly credited and noted. We also appreciate the respondents who responded to the survey for the study.

### References

- Adyen. (2022). Top takeaways from the 2022 Retail Report. Retrieved from Adyen website: <https://www.adyen.com/knowledge-hub/top-takeaways-from-the-2022-retail-report>
- Ali, M. F., Harum, N., Abu, N. A., Talib, M. S., Doheir, M., & Al-Mhiqani, M. N. (2019). Impact of cashless society on the economic growth in Malaysia. *RELIGACIÓN. Revista de Ciencias Sociales y Humanidades*, 4(16), 300–307.
- Amartuvshin, N., Chung, J. F., & Al-Khaled, A. A. S. (2021). Factors affecting online purchase intention of gen Y in Klang Valley, Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 11(4), 983–1034. <https://doi.org/10.6007/IJARBS/v11-i4/9767>
- Apparel Resources News-Desk. (2022). Malaysian retail sales up 20.9%; fashion is the most popular online shopping category. Retrieved from Apparel Resources website: <https://apparelresources.com/business-news/retail/malaysian-retail-sales-20-9-fashion-popular-online-shopping-category/#:~:text=Business Retail News-,Malaysian retail sales up 20.9%25%3B fashion, most popular online shopping category&text=Retail sales in M>

- AsiaPac. (2022). Malaysia digital marketing 2022. Retrieved from Digital Marketing Agency Asia website: <https://www.asiapacdigital.com/digital-marketing-insight/malaysia-digital-marketing-2022#:~:text=1.,for 91.7%25 of the population>.
- Azman, N. H. (2020). 69% Malaysians prefer contactless payments during the pandemic. Bank Negara Malaysia. (2021). *Bank Negara Malaysia annual report 2020*.
- Becker, M. H. (1974). The health belief model and sick role behavior. *Health Education Monographs*, 2(4), 409–419. <https://doi.org/10.1177/109019817400200407>
- Bhatiasevi, V. (2016). An extended UTAUT model to explain the adoption of mobile banking. *Information Development*, 32(4), 799–814. <https://doi.org/10.1177/0266666915570764>
- Boonsiritomachai, W., & Pitchayadejanant, K. (2019). Determinants affecting mobile banking adoption by generation Y based on the Unified Theory of Acceptance and Use of Technology Model modified by the Technology Acceptance Model concept. *Kasetsart Journal of Social Sciences*, 40(2), 349–358.
- Brain & Spine. (2021). Why retail “therapy” makes you feel happier. Retrieved from Health Essentials website: <https://health.clevelandclinic.org/retail-therapy-shopping-compulsion/>
- Brain, & Spine. (2021). Why retail “therapy” makes you feel happier. Retrieved from Health Essentials website: <https://health.clevelandclinic.org/retail-therapy-shopping-compulsion/>
- Brouwer, K. R., Walmsley, L. A., Parrish, E. M., McCubbin, A. K., Welsh, J. D., Braido, C. E. C., & Okoli, C. T. C. (2021). Examining the associations between self-care practices and psychological distress among nursing students during the COVID-19 pandemic. *Nurse Education Today*, 100, 1–6.
- Champion, V. L., & Skinner, C. S. (2008). The health belief model. In *Health Behavior and Health Education: Theory, Research, and Practice* (Vol. 4, pp. 45–65). Jossey-Bass.
- Charm, T., Grimmelt, A., Kim, H., Robinson, K., Lu, N., Mayank, ... Yamakawa, N. (2020). Consumer sentiment and behavior continue to reflect the uncertainty of the COVID-19 crisis.
- Cheng, F. M., Khim, C., & Thai, S. (2018). Consumer adoption of e-wallets: a study of millennials at the Institute of Foreign Languages, Cambodia. *Proceedings of the 21st Asia-Pacific Conference on Global Business, Economics, Finance & Social Sciences*, 1–16.
- Chin, C. (2019). How practical is cashless travel?
- Choi, I., Kim, J. H., Kim, N., Choi, E., Choi, J., Suk, H. W., & Na, J. (2021). How COVID-19 affected mental well-being: An 11-week trajectories of daily well-being of Koreans amidst COVID-19 by age, gender and region. *PloS One*, 16(4), 1–17.
- Davidavičienė, V., Raudeliūnienė, J., & Viršilaitė, R. (2019). User experience evaluation and creativity stimulation with augmented reality mobile applications. *Creativity Studies*, 12(1), 34–48. <https://doi.org/10.3846/cs.2019.3576>
- Digital Business Lab. (2021). Social media penetration in Malaysia. Retrieved from Digital Business Lab website: <https://digital-business-lab.com/2021/09/2-social-media-penetration-in-malaysia-research/>
- Digital News Asia. (2021). Malaysia leads SEA in digital consumption: Facebook, Bain and Co.
- Do, K. T., Prinstein, M. J., & Telzer, E. H. (2020). Neurobiological susceptibility to peer influence in adolescence. In *The Oxford Handbook of Developmental Cognitive Neuroscience*. <https://doi.org/10.1093/oxfordhb/9780198827474.013.27>

- Fairlie, M. (2022). Marketing to millennials: How to capture gen Y consumers. Retrieved from Business News Daily website: <https://www.businessnewsdaily.com/author/mark-fairlie>
- FMT News. (2019). 20 years for Malaysia to become cashless society, says PayNet.
- Friadi, H., Ujang, S., & Kirbrandoko. (2018). Integration of technology acceptance model and theory of planned behaviour of intention to use electronic money. *International Journal of Science and Research*, 7(2), 711–716. Retrieved from <https://www.ijsr.net/archive/v7i2/ART201890.pdf>
- Froehlich, N. (2022). Understanding the differences in mobile app use across generations. Retrieved from Forbes website: <https://www.forbes.com/sites/forbestechcouncil/2022/01/12/understanding-the-differences-in-mobile-app-use-across-generations/?sh=67e488651d18>
- Gadge, A., & Rai, P. (2019). Awareness of digital payments in rural area. *International Journal for Scientific Research and Development*, 7(8), 412–415. <https://doi.org/10.13140/RG.2.2.26762.21442>
- Giray, L. (2022). Meet the centennials: Understanding the generation Z students. *International Journal of Sociologies and Anthropologies Science Reviews*, 2(4), 9–18.
- Gordon-Hecker, T., Pittarello, A., Shalvi, S., & Roskes, M. (2020). Buy-one-get-one-free deals attract more attention than percentage deals. *Journal of Business Research*, 111, 128–134.
- Haron, R. (2020). E-wallet gaining traction in Malaysia.
- Harris, H., Guru, B. K., & Avvari, M. V. (2011). Evidence of firms' perceptions toward electronic payment systems (EPS) in Malaysia. *International Journal of Business and Information*, 6(2), 226–245.
- Hisham, N. A. N. R., Ismail, S., & Syed Mohamad, S. F. (2023). Malaysian Consumer Income and Spending Behaviour During the COVID-19 Pandemic: An Insight from Maqāsid Al-Sharī'ah. *ISRA International Journal of Islamic Finance*, 15(3), 64–80. <https://doi.org/10.55188/ijif.v15i3.611>
- Hollifield, C. R., & Conger, K. J. (2015). The role of siblings and psychological needs in predicting life satisfaction during emerging adulthood. *Emerging Adulthood*, 3(3), 143–153. <https://doi.org/10.1177/2167696814561544>
- Iberdola. (2018). Characteristics of generation X, Y and Z: From the baby boomer to the post-millennial generations: 50 years of change. Retrieved from Iberdola website: <https://www.iberdrola.com/talent/generation-x-y-z>
- IvyPanda. (2021). Generation Y and consumer behaviour in Malaysia essay. Retrieved from IvyPanda website: <https://ivypanda.com/essays/generation-y-and-consumer-behaviour-in-malaysia/>
- Janio. (2019). What makes Malaysian online shoppers tick during Q4 2019? Retrieved from Janio website: <https://janio.asia/sea/malaysia/malaysia-consumer-insights-q4-2019/>
- Jones, L., Palumbo, D., & Brown, D. (2021). Coronavirus: How the pandemic has changed the world economy. Retrieved from BBC News website: <https://www.bbc.com/news/business-51706225>
- Kalogeropoulos, A. (2019). How younger generations consume news differently. Retrieved from Digital News Report website: <http://www.digitalnewsreport.org/survey/2019/how-younger-generations-consume-news-differently/>
- Kasradze, T. (2020). Challenges facing financial inclusion due to the COVID-19 pandemic. *European Journal of Marketing and Economics*, 3(2), 50–63. <https://doi.org/10.26417/523jma34n>



- Katrina, B., & Leong, B. (2019). Who are Malaysia's online shoppers? Retrieved from Janio Asia website: <https://janio.asia/articles/why-are-malaysians-shopping-online/>
- Keenan, M. (2023). The state of the ecommerce fashion industry: statistics, trends and strategies to use in 2022.
- Kohli, S., Timelin, B., Fabius, V., & Veranen, S. M. (2020). How COVID-19 is changing consumer behavior – now and forever. Retrieved from McKinsey and Company website: <https://www.mckinsey.com/industries/retail/our-insights/how-covid-19-is-changing-consumer-behavior-now-and-forever>
- Koyuncu, M., & Pusatli, T. (2019). Security awareness level of smartphone users: An exploratory case study. *Mobile Information Systems*, 2019, 1–11. <https://doi.org/10.1155/2019/2786913>
- Lee, L. (2019). Cybercrime has evolved: it's time cyber security did too. *Computer Fraud and Security*, 2019(6), 8–11. [https://doi.org/10.1016/S1361-3723\(19\)30063-6](https://doi.org/10.1016/S1361-3723(19)30063-6)
- Li, C., Chu, M., Zhou, C., & Zhao, L. (2020). Two-period discount pricing strategies for an e-commerce platform with strategic consumers. *Computers and Industrial Engineering*, 147, 1–13.
- Lim, G. E. (2020). *Cyberjaya adopts cashless ecosystem with Malaysia national QR*. Minister of Finance Malaysia.
- Lim, T. W. (2019). Case Study 5: Cashless convenience in China—A survey of its development and a case study of the political economics behind the mechanism. In *Industrial Revolution 4.0, Tech Giants, and Digitized Societies* (pp. 137–144). Singapore: Springer Nature Singapore. [https://doi.org/10.1007/978-981-13-7470-8\\_10](https://doi.org/10.1007/978-981-13-7470-8_10)
- Lisa, A. (2021). Gen Z's Impact on the economy is leading to major changes with credit, investing and more. Retrieved from Yahoo Finance website: <https://finance.yahoo.com/news/gen-z-impact-economy-leading-110039685.html>
- Lister, M. (2022). Generational marketing: How to target millennials, gen X and boomers. Retrieved from WordStream website: <https://www.wordstream.com/blog/ws/generational-marketing-tactics>
- Lohman, L. (2021). Generation Y: Definition, characteristics and personality. Retrieved from Study.com website: <https://study.com/academy/lesson/generation-y-definition-characteristics-personality-traits.html>
- Malaysia Kini. (2021). Swipe to buy: How shifting consumer habits are changing Malaysia's future for retail.
- Maulana, D., Wiryono, S. K., & Purwanegara, M. S. (2018). Discovering branchless banking adoption under inclusive financial plan in Indonesia. *International Journal of Innovation and Business Strategy*, 10(2), 32–45.
- Maurya, P. (2019). Cashless economy and digitalization. *Proceedings of 10th International Conference on Digital Strategies for Organizational Success*, 1–6.
- McGuire, S. (2023). What is a marketing plan and how to make one?
- McKinsey & Company. (2020). COVID-19: Implications for business in 2020. Retrieved from McKinsey and Company website: [https://www.mckinsey.com/~media/McKinsey/Business Functions/Risk/Our Insights/COVID 19 Implications for business/COVID 19 Dec 9/COVID-19-Briefing-note-35-December-9.pdf?shouldIndex=false](https://www.mckinsey.com/~media/McKinsey/Business%20Functions/Risk/Our%20Insights/COVID%2019%20Implications%20for%20business/COVID%2019%20Dec%209/COVID-19-Briefing-note-35-December-9.pdf?shouldIndex=false)
- Miao, M., & Jayakar, K. (2016). Mobile payments in Japan, South Korea and China: Cross-border convergence or divergence of business models? *Telecommunications Policy*, 40(2–3), 182–196.

- Muthaiyah, S., Ernest, J. A. J., & Wai, C. K. (2011). Review of e-commerce issues: Consumers perception on security and privacy. *International Business and Economics Research Journal*, 3(9). <https://doi.org/10.19030/iber.v3i9.3724>
- Naumovska, L. (2017). Marketing communication strategies for generation Y – millennials. <https://doi.org/10.5296/bms.v8i1.10260>
- New Straits Times. (2022). Dont get carried away by online shopping. Retrieved from New Straits Times website: <https://www.nst.com.my/opinion/letters/2022/02/768268/dont-get-carried-away-online-shopping>
- Nielsen. (2019). Understanding Malaysia's gen Z... and how to reach them. Retrieved from Nielsen website: <https://www.nielsen.com/insights/2019/understanding-malaysias-gen-z/>
- Paul, S. (2019). From baby boomers to Gen Z: Here's a breakdown of when each generation begins and ends. Retrieved from Says website: <https://says.com/my/lifestyle/the-differences-between-generations-in-malaysia>
- PricewaterhouseCoopers. (2022). Four fault lines show a fracturing among global consumers PwC's March 2021 global consumer insights pulse survey.
- Property Hunter. (2022). Over Rm80 million property sales took place at property hunter expo.
- Puat, M. N. A. (2018). Benefits of going cashless.
- Rajeck, J. (2020). Online Shopping in 2020 / GenZs vs. Millennials: Focus on Malaysia. Retrieved from Click Insight Asia website: <https://www.clickinsights.asia/post/online-shopping-in-2020---genzs-vs-millennials-focus-on-malaysia>
- Research & Markets. (2022). Malaysia social commerce market intelligence report 2022: Market is expected to grow by 45.2% to reach \$1,327.5 million in 2022 - Forecast to 2028. Retrieved from Research and Markets website: <https://www.globenewswire.com/en/news-release/2022/05/20/2447596/28124/en/Malaysia-Social-Commerce-Market-Intelligence-Report-2022-Market-is-Expected-to-Grow-by-45-2-to-Reach-1-327-5-Million-in-2022-Forecast-to-2028.html>
- Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change. *The Journal of Psychology*, 91(1), 93–114.
- Sarfaraz, J. (2017). Unified theory of acceptance and use of technology (UTAUT) model- mobile banking. *Journal of Internet Banking and Commerce*, 22(3), 1–20.
- Savić, J., & Pešterac, A. (2019). Antecedents of mobile banking: UTAUT model. *The European Journal of Applied Economics*, 16(1), 20–29. <https://doi.org/10.5937/EJAE15-19381>
- Shaw, K. (2021). McCann Worldgroup Apac releases global “Truth about generation z” study coinciding with the united nation's international youth day.
- Skrovan, S. (2017). Why most shoppers still choose brick-and-mortar stores over e-commerce. Retrieved from Retail Dive website: <https://www.retaildive.com/news/why-most-shoppers-still-choose-brick-and-mortar-stores-over-e-commerce/436068/>
- Sneader, K., & Singhal, S. (2021). The next normal arrives: Trends that will define 2021 - and beyond.
- Stanley, H. (2022). The future of mobile shopping and how to optimize your site. Retrieved from Shopify website: <https://www.shopify.com/my/enterprise/mobile-commerce-future-trends>
- Statista Research Department. (2022). Share of internet users using mobile apps in Malaysia as of Q3 2020, by category. Retrieved from Statista website: Share of internet users using communication applications in Malaysia as of May 2020, by app

- Subramaniam, P. (2022). Trend: Millennials and gen Z reshaping asset management industry. Retrieved from The Edge Markets website: <https://www.theedgemarkets.com/article/trend-millennials-and-gen-z-reshaping-asset-management-industry>
- Tarhini, A., El-Masri, M., Ali, M., & Serrano, A. (2016). Extending the UTAUT model to understand the customers' acceptance and use of internet banking in Lebanon. *Information Technology and People*, 29(4), 830–849. <https://doi.org/10.1108/ITP-02-2014-0034>
- Tariq, A., Lee, Y., Roosa, K., Blumberg, S., Yan, P., Ma, S., & Chowell, G. (2020). Real-time monitoring the transmission potential of COVID-19 in Singapore, March 2020. *BMC Medicine*, 18(1), 1–14.
- Tee, H. H., & Ong, H. B. (2016). Cashless payment and economic growth. *Financial Innovation*, 4, 1–9. <https://doi.org/10.1186/s40854-016-0023-z>
- Udo, G. J. (2001). Privacy and security concerns as major barriers for e-commerce: A survey study. *Information Management and Computer Security*, 9(4), 165–174. <https://doi.org/10.1108/EUM0000000005808>
- Vasanth, G. (2021). Malaysia e-shopping king of the region, 9 out of 10 online by end-2021. Retrieved from The Edge Malaysia website: <https://www.theedgemarkets.com/article/malaysia-eshopping-king-region-9-out-10-online-end2021>
- Venkatesh, V. (2000a). Determinants of perceived ease of use: Integrating control, intrinsic motivation, and emotion into the technology acceptance model. *Information Systems Research*, 11(4), 342–365. <https://doi.org/10.1287/isre.11.4.342.11872>
- Venkatesh, V. (2000b). Determinants of perceived ease of use: integrating perceived behavioral control, computer anxiety and enjoyment into the technology acceptance model. *Information Systems Research*, 11(1), 3–11. Retrieved from [vvenkate@rhsmith.umd.edu](mailto:vvenkate@rhsmith.umd.edu)
- Verma, A. K., & Prakash, S. (2020). Impact of covid-19 on environment and society. *Journal of Global Biosciences*, 9(5), 7352–7363.
- Vuleta, B. (2022). Generation Z statistics.
- WHO. (2020). Archived: WHO timeline - COVID-19.
- Woldometer. (2020). Malaysia population. Retrieved from Woldometer website: <https://www.worldometers.info/demographics/malaysia-demographics/>
- Yang, M., Mamun, A. Al, Mohiuddin, M., Nawi, N. C., & Zainol, N. R. (2021). Cashless transactions: A study on intention and adoption of e-Wallets. *Sustainability*, 13(2), 1–18. <https://doi.org/10.3390/su13020831>
- Yi, C. P. K., & Perera, S. (2019). Addressing e-wallet adoption among Malaysians. *Taylor's Business Review*, 8(2), 41–57.
- Zhang, Y., & Ma, Z. F. (2020). Impact of the COVID-19 pandemic on mental health and quality of life among local residents in Liaoning Province, China: A cross-sectional study. *International Journal of Environmental Research and Public Health*, 17(7), 1–12.