

# E-SHOPPER TYPOLOGIES DIFFERENCES IN ONLINE BUYING SATISFACTION AMONG UNIVERSITI PUTRA MALAYSIA'S STUDENTS

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## Abstract

The enormous progression of the internet in marketing and e-commerce has led to the prosperity of online business. Online shopping is a form of electronic business that lets customers purchase goods and services directly from online sellers via the Internet. In other words, the e-shoppers just need to stay anywhere, order online, make their payment online, and wait for their goods and services sent to their addresses. Therefore, e-shoppers can save their time shopping and allocate more time to other daily activities. This research aimed to determine the e-shopper typologies differences in online buying satisfaction among UPM's students. A self-administrated questionnaire was distributed to the surveyed respondents to acquire the research data via a systematic random sampling procedure. E-shopper typology was assessed by the measurement adopted from Rohm and Swaminathan (2004). A total of 18-items, which comprised four shopping motives, were used to group the respondents into different e-shopper clusters. The grouping of e-shopper was solely based on the highest scores obtained on each shopping motive, including online convenience, physical store orientation, information used in planning and shopping, as well as variety seeking. The result showed that most of the respondents were convenience shoppers, as their involvement in online shopping was primarily due to online convenience motives. On the whole, a large proportion of respondents were moderately satisfied cluster, showing moderate satisfaction towards their online buying experiences. The clusters of e-shopper were found to have significant differences in online buying satisfaction via a one-way ANOVA test. The mean differences of the LSD post hoc test have shown that convenience shoppers were more satisfied with their online buying experience as compared to balanced buyers. These findings are beneficial to e-retailers and consumers in developing a holistic understanding of e-shopper and thus enhancing consumers' self-understanding as an e-shopper.

**Keywords:** E-shopper typology, Online buying, Online buying satisfaction; One-way ANOVA

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## Abstrak

*Perkembangan Internet yang sangat pesat dalam bidang pemasaran dan e-dagang telah menyebabkan kemakmuran dalam perniagaan dalam talian. Membeli-belah dalam talian adalah satu bentuk perniagaan elektronik yang membolehkan pelanggan membeli barang dan perkhidmatan secara langsung dari penjual dalam talian melalui Internet. Dengan kata lain, e-pembeli hanya perlu berada di mana-mana, membuat pesanan dalam talian, membuat pembayaran dalam talian, dan menunggu barang dan perkhidmatan mereka dihantar ke alamat mereka. Oleh itu, e-pembeli dapat menjimatkan masa mereka untuk membeli-belah dan memperuntukkan lebih banyak masa untuk aktiviti harian yang lain. Penyelidikan ini bertujuan untuk mengetahui perbezaan tipologi e-pembeli dalam kepuasan membeli dalam talian dalam kalangan pelajar UPM. Soal selidik yang ditadbir sendiri diedarkan kepada responden yang dikaji untuk memperoleh data kajian melalui prosedur persampelan rawak yang sistematik. Tipologi e-shopper dinilai dengan pengukuran yang diambil oleh Rohm dan Swaminathan (2004). Sejumlah 18 item yang terdiri daripada empat motif membeli-belah, digunakan untuk mengelompokkan responden ke dalam kumpulan e-shopper yang berbeza. Pengelompokan e-shopper hanya berdasarkan skor tertinggi yang diperoleh pada setiap motif membeli-belah termasuk kemudahan dalam talian, orientasi kedai fizikal, maklumat yang digunakan dalam merancang dan membeli-belah serta mencari kepelbagaian. Hasil kajian menunjukkan bahawa sebahagian besar responden adalah pembeli mudah kerana penglibatan mereka dalam membeli-belah dalam talian sebahagian besarnya disebabkan oleh motif kemudahan dalam talian. Secara keseluruhan, sebilangan besar responden berpuashati pada tahap yang sederhana, menunjukkan kepuasan sederhana terhadap pengalaman membeli dalam talian mereka. Kumpulan e-pembeli didapati mempunyai perbezaan yang signifikan dalam kepuasan membeli dalam talian melalui ujian ANOVA sehalu. Perbezaan min ujian LSD post hoc telah menunjukkan bahawa pembeli mudah lebih berpuas hati dengan pengalaman membeli dalam talian mereka berbanding dengan pembeli yang seimbang. Penemuan ini bermanfaat bagi e-peruncit dan pengguna dalam mengembangkan pemahaman menyeluruh mengenai e-pembeli dan dengan itu meningkatkan pemahaman diri pengguna sebagai e-pembeli.*

*Kata kunci: Tipologi e-pembeli, Pembelian dalam talian, Kepuasan membeli dalam talian; ANOVA sehalu*

## Introduction

Internet service has transformed the way people shop since the first Internet-oriented business transaction took place on 11th August 1994 (Lewis, 1994). Since then, the popularity of customers to shop online has grown gradually in line with the development of online payment methods, mobile applications, and the Internet across the decades (Li, Zhao, & Pu, 2020), becoming the norm of people in every day's life.

This situation, therefore, leads the shopping mode to undergo a noticeable transition from visiting "brick-and-mortar" stores to "brick-and-click" stores and well-accepted as online shopping (Duarte, e Silva, & Ferreira, 2018). This kind of shopping mode encourages e-shoppers to get access to the information on a series of options, especially the place to buy as well as the price of desired products and services through the shopping website that illustrates a variety of products and services from many online vendors in just a page (Liu, Hsieh, Lo, & Hwang, 2017). As a result, e-shoppers can save their time to shop with just a single click at any time, anywhere.

On the other hand, the remarkable growth rate of online shopping platforms has encouraged the researcher to know more about customer online buying satisfaction. Furthermore, the online shopping experience of e-shoppers is significant to their repurchase intention on online shopping platforms in the future (Shi, Wang, Chen, & Zhang, 2020). In general, the fulfilment of e-shoppers' expectations and needs could further enhance their online buying satisfaction level (Lu, Chang, & Yu, 2013). In addition to that, customer satisfaction is an enterprise's competitive advantage in establishing a profitable long-term relationship between shoppers and retailers (Hennig-Thurau & Hansen, 2013). Therefore, the present researcher assumed that understanding the e-shoppers' demands could further drive online business retailers to build a more friendly online purchasing environment to satisfy their targeted e-shoppers.

Internet acts as the cornerstone of e-commerce (Jaller & Pahwa, 2020). E-commerce, which was unlikely popular a few decades ago, is gradually becoming an essential part of Malaysian daily lives. In 2015, more than eight-tenths of the individuals (86.6%) accessed the Internet at least once a day as compared to 60.3 percent in 2013 (Department of Statistics Malaysia, 2016), resulting in an 8.0 percent of the contribution concerning e-commerce services to the Gross Domestic Product in 2018 (Department of Statistics Malaysia, 2019). Meanwhile, the percentage of Malaysian households' access to the Internet continued to expand at 90.1 percent in 2019, including Internet-accessible via tablet, laptop, personal computer, and mobile phones. Most of the citizens access the Internet access through fixed broadband (80.5%), followed by mobile broadband (37.0%) as well as narrowband (2.4%) (Department of Statistics Malaysia, 2019).

The growing Internet penetration has changed the communication between retailers and customers (Xiang, Wang, O'Leary, & Fesenmaier, 2015). Interestingly, travel services which encompass accommodations (US\$2.759 billion), electronics and physical media (US\$851 million), fashion and beauty (US\$771 million), furniture and appliances (US\$553 million), toys and hobbies, which encompasses sports (US\$486 million), food and personal care (US\$483 million), video games (US\$100 million) as well as music (US\$30 million) are the top products and services categories among Malaysian e-shoppers during the Q4 of 2019 ([www.janio.asia](http://www.janio.asia)). Therefore, these

statistics have become a significant element that should be understood and considered, especially by online business people (Yalcin & Mehmet, 2012).

To the best knowledge, there is a lack of existing literature on e-shopper typologies differences in online buying satisfaction among university students in Malaysia. Therefore, this research aims to determine the e-shopper typologies differences in online buying satisfaction among Malaysian university students. In particular, the present research objectives are to categorize university students into different e-shopper typologies and examine online buying satisfaction among e-shopper typologies. The e-shopper typology adopted in this research is the four e-shoppers' types under the shopping motives segmentation developed by Rohm and Swaminathan (2004), including variety seeker, convenience shopper, store-oriented shopper, and balanced buyer.

## Literature Review

### E-Shopper typologies

The enormous progression of the Internet in marketing and e-commerce has led to online business prosperity (Valvi & Fragkos, 2012). Thus, online retailing (Colomo-Palacios, Casado-Lumbreras, Soto-Acosta, Garcia-PenAlvo, & Tovar-Caro, 2013; Rezaei and Amin, 2013; Rezaei, Amin, and Ismail, 2014) are expanding quickly in Malaysia. The development of online shopping has created considerable interest among academicians (Rohm & Swaminathan, 2004). Online shopping refers to an electronic business that lets the customers purchase goods and services directly from online sellers via the Internet (Muda, Mohd, & Hassan, 2016). In other words, the e-shoppers just need to stay at home, order online, make their payment online, and wait for their goods and services sent to their house (Rita, Oliveira, & Farisa, 2019). Therefore, e-shoppers can save their time shopping and allocate more time to other daily activities (Duarte *et al.*, 2018).

The existing literature on the understanding of online buying in the local context is very scarce (San, Omar, & Thurasamy, 2015). Nowadays, most shopping activities have gained importance and can be performed at any place without boundaries (Jaller & Pahwa, 2020). However, only a few research focuses on the context of online buying among Malaysian customers (Jamil & Mat, 2011; Lim, Osman, Salahuddin, Romle, & Abdullah, 2016). Generally, it is observed that e-shoppers behave differently as compared to offline customers or store shoppers (Aljukhadar & Senecal, 2011; Chatterjee, 2010; Jansson, 2016; Rezaei & Valaei, 2018). Therefore, this situation further triggers the researcher that the need to understand better the e-shopper typologies.

Throughout the literature search, there are a series of e-shopper typologies conducted by previous research. Subsequently, Table 1 presents a look back at how the selected literature of e-shopper typologies unfolded.

**Table 1: Summary of E-shopper Typology Literature**

Author(s)	Online context	Typology base	Cluster names
Brown, Pope, and Voges (2003)	Internet shoppers	Shopping orientation	Personalizing, recreational, economic, involved, convenience-oriented, community-oriented and apathetic shoppers
Kau, Tang, and Ghose (2003)	Internet users	Behavioural segmentation	On-off, comparative, traditional, dual, e-laggard, and information surfer
Swinyard and Smith (2003)	Online shoppers	Internet lifestyles	Shopping lovers, adventuresome explorers, suspicious learners, and business users
Bhatnagar and Ghose (2004)	Electronics, legal service and music shoppers	Benefit and risk segmentation	Segment 1 (high product risk, high-security risk), segment 2 (moderate product risk, low-security risk), and segment 3 (low product risk, moderate security risk)
Rohm and Swaminathan (2004)	Online grocery shopping	Shopping motivations	Convenience, variety seeker, balanced, and store-oriented buyer
Brengman, Geuens, Weijters, Smith, and Swinyard (2005)	Internet users	Web usage related lifestyles	Tentative shoppers, suspicious learners, shopping lovers, and business users
Wang, Pallister, and Foxall (2006)	Internet buyers	Cognitive style and involvement	Less-involved adaptors, less-involved innovators, more-involved adaptors, and more-involved innovators
Barnes, Bauer, Neumann and Huber (2007)	Online shoppers	Psychological profile	Risk-averse, open-minded, and reserved information seekers
Jayawardhena, Wright, and Dennis (2007)	Internet users	Purchase orientation	Active, price sensitives, discerning, loyal, and convenience shoppers
Ganesh, Reynolds, Luckett, and Pomirleanu (2010)	Online shoppers	Online shopping motivations	Interactive, destination, apathetic, e-window shopper, basic, bargain seekers, and shopping Enthusiasts

**Table 1 (continues)**

<b>Author(s)</b>	<b>Online context</b>	<b>Typology base</b>	<b>Cluster names</b>
Ganesh, Reynolds, Lockett, and Pomirleanu (2010)	Online shoppers	e-Store attribute importance	Destination, apathetic, basic, bargain seekers, shopping enthusiasts, and risk-averse
Aljukhadar and Senecal (2011)	Online consumers	Internet usage pattern	Basic communicators, lurking shoppers, and social thrivers
Ye, Li, and Gu (2011)	Internet users	Lifestyle	Inexperienced shoppers, shopping lovers, business users, and suspicious shoppers
Hill, Beatty, and Walsh (2013)	Adolescent online users and shoppers	Motivational factors	Internet conquerors, virtual pragmatists, and recreational shoppers
Karimi, Papamichail, and Holland (2015)	Online banking consumers and mobile network buyers	Online purchase decision-making outcomes	Satisfiers with a low level of knowledge, satisfiers with a high level of knowledge, maximizers with a low level of knowledge, maximizers with a high level of knowledge
Liu, Li, Peng, Lv, and Zhang (2015)	Online consumers	Online shopping patterns and activities	Economical, active-star, direct, direct, high- loyalty, risk-averse, and credibility-first purchasers
Pandey, Chawla, and Venkatesh (2015)	Online shoppers	Lifestyle	Mature traditionalists offer enthusiasts, and technology mavericks
Rezaei (2015)	Online retail consumers	Consumer's characteristics	Perfectionist, brand consciousness, price-conscious, fashion-conscious, recreational and impulsive shoppers
Huseynov and Yildirim (2017)	Online customers	Behavioural segmentation	Opportunist customers, transient customers, need-based shoppers, sceptical newcomers and repetitive purchasers
Małeckı and Watrobski (2017)	Internet shop customers	Purchasing decision making	Opportunity hunters, followers of new products, customers who are angry to visit online stores, and information hunters

**Table 1 (continues)**

Author(s)	Online context	Typology base	Cluster names
Ballestar, Grau-Carles, and Sainz (2018)	Cashback website customers	Online shopping patterns and activities	Immature referees, heavy user referees who invest time on the website (low profitability), heavy users of all kinds of transactions with low sensitivity to payouts (high profitability), recommended profitability and convenience-oriented users (medium-high profitability), convenience buyers with potential, referees in development, engaged convenience buyers, and engaged referees.
Nakano and Kondo (2018)	bricks-and-mortar, online stores, mobile, PC, and social media shoppers	Online shopping patterns and activities	Store-focused customers, store-focused light customers, store-focused light customers, store-focused customers, uninvolved shoppers, online-favoured multichannel enthusiasts, and store-favoured multichannel enthusiasts
Wang and Somogyi (2018)	Online food shoppers	Shopping intention	Online-food- conservative and online-food-pioneer
Huseynov and Ozkan Yildirim (2019)	University students	Psychographic segments	Shopping lovers, direct purchasers, suspicious browsers, and incompetent consumers
Ladhari, Gonthier, and Lajante (2019)	Generation Y female online shoppers	Psychographic and behavioural segmentation	Price shoppers, discovery shoppers, emotional shoppers, strategic shoppers, fashionistas, and shopping fans
Schneider and Zielke (2020)	Showrooming customers	Showrooming segments	Retailer loyalty, usage of in-store information, devices, and place and time of the online purchase

Screening through the numerous previous e-shopper typologies literature, the available research which segmenting the e-shoppers among university students' population is rare and limited, especially in the context of Malaysia. This current research attempts to bridge the research gap by classifying the local university students with the online buying experience. Therefore, online business retailers could understand well the perception and preference of university students. For example, suppose that individuals' online shopping behaviours were affected by online shopping motives (Ganesh *et al.*, 2010); the researcher has chosen the four clusters of e-shopper typology proposed by Rohm and Swaminathan (2004) as the segmentation base in this research. Instead, these different clusters of e-shopper will be motivated by a different source of motivation and thus experience online buying satisfaction levels differently.

### **Online buying satisfaction**

Satisfaction is generally viewed as an evaluation of a person's overall consumption experience (Jaapar, Musa, Moghavvemi, & Saub, 2017), which is identified by the cognitive value of goods and services to a customer (Tutuncu, 2017). It is worth noting that the key factor for a successful business is the fulfilment of customers' needs, expectations as well as norms (Mikolon, Kolberg, Haumann, & Wieseke, 2015), especially in this customer-oriented era. A customer will be satisfied when a certain business retailer can fulfil his/her expectation and norm (Gonzalez, 2019).

In terms of academic discussion, the determinants of online buying satisfaction have become areas of concern for researchers (Bressolles, Durrieu, & Senecal, 2014; Duarte *et al.*, 2018; Pham & Ahammad, 2017; Rita *et al.*, 2019). In the context of this current research, the concept of online buying satisfaction, or e-satisfaction, refers to the Malaysian university students' overall evaluation derived from their prior online shopping experiences via an electronic purchasing platform (Moriuchi & Takahashi, 2016). Suppose that the Malaysian online buying scenario has been experiencing an unpredictable growth rate; the present researcher assumes that conducting business virtually in Malaysia is very competitive since competitors are just a few clicks away, thereby establishing a group of loyal customers is crucial for e-commerce practitioners.

Thaichon and Quach (2015) explained customer satisfaction as a response to his/her pleasure, happiness, and fulfilment towards certain services provided by a service provider. Interestingly, Wang and Wu (2012) expected that when online shoppers are satisfied or happy with the service providers, they are more willing to pay more and portray higher repurchase intentions. Then, customer satisfaction will eventually lead to establishing customer loyalty (Thaichon & Quach, 2015). Due to this reason, several previous research has enlightened the positive relationship

between customer satisfaction and repurchase intention (Chinomona & Dubihlela, 2014; Choi & Kim, 2013; Elbeltagi & Agag, 2016). Following these reasonings, the present researcher predicts that customer satisfaction management has become a critical aspect for all business practitioners, specifically in an online context which acts as an impact of intense competition in the virtual global market (Deng, Lu, Wei, & Zhang, 2010; Udo, Bagchi, & Kirs, 2010).

## Methodology

Knowing that there was limited Malaysian research on e-shopper typology, this research utilized experimental design to unearth the e-shopper typologies among university students, especially those studying at Universiti Putra Malaysia (UPM). The experimental design principally to gain a deeper understanding of how the cluster of UPM students differs in online buying satisfaction. In terms of the sampling technique, systematic random sampling was employed to select the sample. Consequently, there were 150 respondents chosen to participate in the data collection. Thus, the sample size follows the slightest assumption on the characteristics of research data analysis based on the number of indicators Hair *et al.* (2016).

In addition to that, three faculties were chosen randomly as the research location to represent the technical, science, and social science streams students at the university. In particular, the Faculty of Biotechnology and Biomolecular Sciences, Faculty of Educational Studies, and Faculty of Design and Architecture were drawn to portray the faculties offering science, social science, and technical courses, respectively. These focal points of data collection were seen to compliance with the research scope, where students from these three faculties are within the age group of interest. Hence, throughout the research, the entire population of university students can be fully represented by those who get enrolled at these faculties.

## Instrumentation

The self-administrated questionnaire was the instrument to acquire the research data. Measurement of e-shopper typology was examined based on the shopping motives segmentation adopted from Rohm and Swaminathan (2004). The measurement is divided into four subscales, namely convenience shopper ( $\alpha = 0.80$ ), variety seeker ( $\alpha = 0.60$ ), balanced buyer ( $\alpha = 0.52$ ), and store-oriented shopper ( $\alpha = 0.71$ ). Meanwhile, online buying satisfaction in this research was assessed based on the measurement adopted from Anderson and Srinivasan (2003). The Cronbach's alpha obtained from the previous research of Anderson and Srinivasan (2003) was 0.8947, which is highly reliable for the present research. Consequently, 18-items and 6-items on a seven-point Likert scale anchored by strongly agree and strongly disagree were used to group respondents into the different clusters of the e-shopper and measure online satisfaction, respectively.

## Results and Discussions

### Respondents' profiles

Table 2 exhibits the socio-demographic background of respondents in the research. Out of the 150 surveyed respondents, nearly two-thirds of them (64.0%) were female, and 36.0 percent were male respondents. Thus, it reflected the actual students' gender distribution at the university. In this research, Chinese (57.3%) respondents dominated the percentage of ethnicity, followed by Malay (28.7%) and Indian (14.0%) respondents. Meanwhile, the age range of respondents was between 20 and 24 years old. Specifically, slightly more than a quarter of them (28.7%) were aged 22 years, while the respondents aged 24 represented the minority group in this research (7.3%).

**Table 2: Socio-demographic Background of the Respondents**

Variable	Frequency (N = 150)	Percentage (%)
<b>Gender</b>		
Male	54	36.0
Female	96	64.0
<b>Race</b>		
Malay	43	28.7
Chinese	86	57.3
Indian	21	14.0
<b>Age (years old)</b>		
20	27	18.0
21	37	24.7
22	43	28.7
23	32	21.3
24	11	7.3
Mean = 21.75		
<b>Study Semester</b>		
2	39	26.0
4	56	37.3
6	55	36.7

**Table 2 (continues)**

<b>Variable</b>	<b>Frequency (N = 150)</b>	<b>Percentage (%)</b>
<b>Source of Income</b>		
Loan/Scholarship	105	70.0
Sponsored by Parents	45	30.0
<b>Monthly Personal Income</b>		
Less than RM500	127	84.7
RM501 – RM1000	23	15.3

The present research also found that most of the respondents were second year and final year students, which accounted for 37.3 percent and 36.7 percent, respectively, while more than a quarter of the respondents (26.0%) were first-year students. Interestingly, loan or scholarship was the primary financial support of a large portion of the surveyed respondents (70.0%), while their parents sponsored almost one-third (30.0%). Regarding the monthly personal income, more than four-fifths of the respondents (84.7%) earned below RM500 per month, whereas 15.3 percent of them have earned between RM501- RM1000 monthly.

**Online shopping patterns of respondents**

Table 3 depicts the online shopping patterns of the surveyed university students. Findings on the average time spent online shopping showed that almost half of the university students (48.7%) spent less than an hour in each online shopping. Furthermore, about 44.0 percent of respondents visited the retail sites once a month, whereas more than one-tenth of them (10.7%) performed online shopping every day.

However, there was only 4.7 percent of respondents reported otherwise as spurred by wants or needs. In terms of the recency of Internet purchase, a higher distribution of the respondents performed online buying less than one month ago (35.3%) as compared to those who shopped online since more than six months ago (28.0%) as well as one to two months ago (20.0%).

**Table 3: Online Shopping Patterns of the Respondents**

<b>Variable</b>	<b>Frequency (N = 150)</b>	<b>Percentage (%)</b>
<b>Average time spent in each online shopping</b>		
Less than an hour	73	48.7
One to two hours	39	26.0
Two to three hours	17	11.3
More than three hours	21	14.0
<b>Frequency of visiting retail sites in a month</b>		
Every day	16	10.7
Once in a week	33	22.0
Once in two weeks	28	18.7
Once in a month	66	44.0
Others	7	4.7
<b>The recency of Internet purchase</b>		
Less than one month ago	53	35.3
One to two months ago	30	20.0
Three to six months ago	25	16.7
More than six months ago	42	28.0
<b>Type of product purchased the most on the Internet</b>		
Food and beverage	8	5.3
Electrical and electronic products	8	5.3
Homewares and home furnishings	2	1.3
Footwear and apparel	48	32.0
Tickets (concert, movies, etc.)	23	15.3
Books or magazines	9	6.0
Computer and mobile gadgets	5	3.3
Travel packages (airlines, car rentals, hotels)	28	18.7
Sports equipment	1	0.7
Beauty products	18	12.0
Shopee	18	12.0
Taobao	45	30.0
<b>The maximum amount of money spent based on previous online buying experience</b>		
Less than RM200	101	67.3
RM201 – RM400	23	15.3
RM401 – RM600	14	9.3
More than RM600	12	8.0

**Table 3 (continues)**

Variable	Frequency (N = 150)	Percentage (%)
<b>Payment method used</b>		
Credit card	52	34.7
Cash on delivery	25	16.7
Bank transfer	61	40.7
PayPal	6	4.0
Debit card	6	4.0

By referring to the results of Table 3, the present research justified that footwear and apparel (32.0%) and travel packages (18.7%) were denoted as the two predominant products purchased online by the surveyed respondents, respectively. There was also 15.3 percent of the 150 respondents who had reported that they purchased concert and movie tickets via online channels, whereas 12.0 percent of which was beauty products. Unfortunately, sports equipment was proved as the least preferred product purchased through the Internet among the respondents. Thus, the present research findings were in line with Mariani (2019)'s findings where clothing was the pick of the purchases among Malaysian online customers. Contradictory, ACNielsen (2008) argued that books were the most popular item purchased online globally.

Meanwhile, approximately two-fifths of the total respondents (38.7%) had responded that Lazada was the most favourite website accessed by university students. This percentage distribution was further followed by Taobao (30.0%), Shopee (12.0%), and Zalora (11.3%). However, just one surveyed university student stated that Amazon was his/her favourite website for online shopping.

Lastly, by corresponding to the maximum amount of money spent based on previous online buying experience, a large portion of respondents (67.3%) spent less than RM200 to shop online. Surprisingly, there was only 8.0 per cent of university students spent more than RM600 buying online. Bank transfer (40.7%) was the most commonly used payment method regarding the payment methods used. Meanwhile, both PayPal and debit cards accounted for the least preference choice by respondents (4.0%) in the present research. The current research findings were not in the same vein as the research conducted by Reddy and Thenmozhi (2020). These researchers revealed that many Indian consumers preferred to choose cash on delivery while making online purchases. The researcher assumed that the Indian online shoppers perceived the risks of using digital banking payment methods higher than physical banknotes. Hence, it could trigger their unfavourable attitude to apply for bank transfers while online shopping (Li, Wang, Wangh, & Zhou, 2019).

### Clusters of e-shopper

Table 4 reveals the findings on clusters of e-shopper in the present research. E-shopper typology was assessed by the measurement adopted from Rohm and Swaminathan (2004). The 18-items, which comprised four shopping motives, were used to group the respondents into different e-shopper clusters. The grouping of e-shopper was solely based on the highest scores obtained on each shopping motive, including online convenience, physical store orientation, information used in planning and shopping, as well as variety seeking.

**Table 4: Clusters of E-shopper**

<b>E-shopper Typology</b>	<b>Frequency (N = 150)</b>	<b>Percentage(%)</b>
Convenience shopper	107	71.3
Store-oriented shopper	8	5.3
Balanced buyer	12	12.0
Variety seeker	23	15.3

The present research found that more than two-thirds of respondents (71.3%) fell into the cluster of convenience shoppers. On the other hand, store-oriented shoppers were the smallest group, including only 5.3 percent of the respondents. Finally, balanced buyers and variety seekers each accounted for 8.0 percent and 15.3 percent, respectively.

### Online buying satisfaction

Online buying satisfaction was measured by adopting the 6-item assessment scale on online shopping satisfaction levels by Anderson and Srinivasan (2003). In particular, it was a seven-point Likert scale with point one indicating strongly disagree and point seven indicating strongly agree. Thus, the total scores ranged from 6 to 42, where higher scores reveal satisfied with their online buying experiences.

Based on their online buying satisfaction levels in Table 5, this section grouped the 150 surveyed university students into three clusters - Not Satisfied (< 18), Moderately Satisfied (18 – 29) as well as Satisfied (> 29).

**Table 5: Online Buying Satisfaction Levels**

Online Buying Satisfaction Levels	Frequency (N = 150)	Percentage (%)
Not satisfied (< 18)	13	8.7
Moderately satisfied (18 – 29)	95	63.3
Satisfied (> 29)	42	28.0
Mean	26.43	
Standard deviation	6.027	
Minimum	6	
Maximum	41	

As the data presented in Table 5, many university students (63.3%) were moderately satisfied with their online buying experiences with an average score of 26.43 (Sd = 6.027). Meanwhile, approximately one-fourth of the surveyed respondents (24.7%) perceived that they were satisfied with their experiences shopping online. In contrast, about one-tenth of the university students (8.7%) were not satisfied with their online buying experiences in the present research.

**Comparison of e-shopper typologies on online buying satisfaction**

The differences between e-shopper typologies in terms of online buying satisfaction were analyzed via one-way ANOVA. The relevant results are as portrayed in Table 6.

**Table 6: E-shopper Typologies Differences in Online Buying Satisfaction**

Clusters						
	Convenience Shoppers (n = 107, 71.3%)	Store-oriented Shoppers (n = 8, 5.3%)	Balanced Buyers (n = 12, 8.0%)	Variety Seekers (n = 23, 15.3%)	F	p
Online Buying Satisfaction	2.2804	1.8750	1.9167	2.0435	3.210	0.025*

Notes: The difference is based on the LSD Post Hoc test.  
 \* The mean difference is significant at  $p \leq 0.05$ .

In pertinent to the online buying satisfaction, the LSD post hoc test justified that the mean was different between convenience shoppers and balanced buyers ( $F = 3.210$ ,  $p \leq 0.05$ ). Furthermore, it was worth noting that the convenience shoppers (mean = 2.2804) were shown to have a higher mean than the balanced buyers (mean =

1.9167) in this current research. Therefore, the present results proved that convenience shoppers were more satisfied with their online buying experiences than balanced buyers. Consequently, the present researcher could conclude that there were significant differences in online buying satisfaction among Malaysia's different types of e-shopper typologies.

## **Conclusion and Implications**

The growing trend of online shopping has dramatically changed the purchasing behaviour of Malaysian consumers. In particular, this scenario gradually encouraged them to shift from conventional "brick-and-mortar" shopping to online shopping as information and communication technologies develop. Generally, online shopping was one of the favourite ways of shopping among e-shoppers as it provided a wide range of benefits to them since they were getting more and more familiar with this kind of new shopping mode. Nevertheless, the results of this current research indicated a difference concerning online buying satisfaction among e-shopper clusters. It showed that e-shoppers were moderately satisfied with their online buying experiences, which reviewing that certain extent of improvements needed to provide a faultless service to them. Therefore, online shopping seems to be the primary shopping mode in the future.

The present research attempted to understand the e-shopper typology as they behaved differently as compared to conventional shoppers. Along this line, the research results provided a concept of e-shopper typology by presenting the online shopping behaviour of university students. In other words, the present research eased the Malaysian consumers to understand who they are as an "e-shopper". Therefore, they were more likely to identify their needs and wants with the understanding of e-shopper typology. Consequently, this will increase their online buying satisfaction and utility by knowing about their characteristics as e-shopper.

Many retail sites had been expanded rapidly and thus adding the difficulty in managing customer loyalty. Therefore, this current research aimed to examine the online buying satisfaction level of Malaysian e-shoppers, suppose that customer satisfaction is the most significant shopping outcome in determining repurchase intention. Consequently, the present research findings revealed that most surveyed respondents were moderately satisfied with their online buying experiences. Hence, retailers should focus more on improving their products and services in terms of quality products, on-time delivery services, and efficient online shopping systems, to build customer loyalty. Meanwhile, the majority of surveyed respondents were more prefer online shopping because of its conveniences, including the ordering process, time-saving, and efficient website system. Therefore, the present researcher assumed that e-commerce retailing enterprises should always make sure that their online shopping systems are working smoothly to provide a pleasant experience to

the existing customers and attract their potential customers.

## Limitations and Recommendations

It is notable to mention that research about online shopping in Malaysia is limited, especially consumer attitudes towards online shopping. It is relatively scarce in respect to e-shopper typology. The availability of the Internet nowadays has modified Malaysian lifestyles, especially when everything can be done online. This scenario had also triggered the need to develop a vital mechanism to improve the existing online business performance in the retail industry. However, there are some limitations associated with this research which may provide a basis for future research. Different categories of e-shopper may behave differently in the same online settings and thus perceive online buying satisfaction differently. In addition to that, a group of potential customers with high computer literacy may benefit from the well-developed virtual channel compared to those who are deficient in computer literacy. Therefore, computer-related individual differences could be an influential factor in online buying satisfaction.

It is also important to note that online buying satisfaction was examined overall in the present research without specifying any domain. Hence, future research should include more satisfaction domains, including website information satisfaction, website system satisfaction, efficiency, fulfilment, and service quality satisfaction, enabling a more conclusive analysis of online buying satisfaction. Furthermore, online shopping has redefined the way consumers perceive conventional shopping. However, shopping virtually has eliminated the social interaction with a salesperson. Instead, it tends to be a computer-oriented way. Due to this matter, future research should examine how the e-shopper typologies vary with offline shoppers regarding their buying satisfaction. This effort could enhance the researchers understanding of the similarities and differences between shopper typologies in different shopping modes.

## References

- Aljukhadar, M. & Senecal, S. (2011). Segmenting the online consumer market. *Marketing Intelligence and Planning*, 29(4), 421-435.
- Anderson & Srinivasan (2003). E-satisfaction and e-loyalty: A contingency framework. *Psychology and Marketing*, 20(2), 123-138
- Ballestar, M. T., Grau-Carles, P., & Sainz, J. (2018). Customer segmentation in e-commerce: Applications to the cashback business model. *Journal of Business Research*, 88, 407-414.

- Barnes, S. J., Bauer, H. H., Neumann, M. M., & Huber, F. (2007). Segmenting cyberspace: A customer typology for the internet. *European Journal of Marketing*, 41(1/2), 71-93.
- Bhatnagar, A. & Ghose, S. (2004). Segmenting consumers based on the benefits and risks of Internet shopping. *Journal of Business Research*, 57, 1352-1360.
- Brengman, M., Geuens, M., Weijters, B., Smith, S. M., & Swinyard, W. R. (2005). Segmenting Internet shoppers based on their Web-usage-related lifestyle: A cross-cultural validation. *Journal of Business Research*, 58, 79-88.
- Bressolles, G., Durrieu, F., & Senecal, S. (2014). A consumer typology based on e-service quality and e-satisfaction. *Journal of Retailing and Consumer Services*, 21(6), 889-896.
- Brown, M., Pope, N., & Voges, K. (2003). Buying or browsing? An exploration of shopping orientations and online purchase intention. *European Journal of Marketing*, 37(11/12), 1842-1848.
- Chatterjee, P. (2010). Multiple-channel and cross-channel shopping behaviour: Role of consumer shopping orientations. *Marketing Intelligence & Planning*, 28(1), 9-24.
- Chinomona, R. & Dubihlela, D. (2014). Does customer satisfaction lead to customer trust, loyalty and repurchase intention of local store brands? The case of Gauteng Province of South Africa. *Mediterranean Journal of Social Sciences*, 5(9), 23.
- Choi, E. J. & Kim, S. H. (2013). The study of the impact of perceived quality and value of social enterprises on customer satisfaction and re-purchase intention. *International Journal of Smart Home*, 7(1), 239-252.
- Colomo-Palacios, R., Casado-Lumbreras, C., Soto-Acosta, P., Garcia-PenAlvo, F. J., & Tovar-Caro, E. (2013). Competence gaps in software personnel: A multi-organizational study. *Computers in Human Behaviour*, 29(2), 456-461.
- Deng, Z., Lu, Y., Wei, K. K., & Zhang, J. (2010). Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in China. *International Journal of Information Management*, 30(4), 289-300.
- Department of Statistics Malaysia. (2016). Press Release – ICT Use and Access by Individuals and Households Survey Report, Malaysia, 2015. Retrieved on April 21<sup>st</sup>, 2020 from <https://www.dosm.gov.my/v1/index.php?r=column/pdfPrev&id=Q3I3WXJFbG1PNj>

Rwch ZQTVISR1UrQT09

- Department of Statistics Malaysia. (2019). Press Release – For Statistics on Usage of ICT and E-commerce by Establishment 2018. Retrieved on April 21<sup>st</sup>, 2020 from <https://www.dosm.gov.my/v1/index.php?r=column/pdfPrev&id=U3FYOHJ3cE90UnNW MWdUaVMzREIKdz09>
- Department of Statistics Malaysia. (2019). Press Release – Malaysia Digital Economy 2018. Retrieved on April 21<sup>st</sup>, 2020 from <https://www.dosm.gov.my/v1/index.php?r=column/pdfPrev&id=UERrcjExbnRKd3NwQ0 Y3V011RngyQT09>
- Duarte, P., e Silva, S. C., & Ferreira, M. B. (2018). How convenient is it? Delivering online shopping convenience to enhance customer satisfaction and encourage e-WOM. *Journal of Retailing and Consumer Services*, 44, 161-169.
- Elbeltagi, I. & Agag, G. (2016). E-retailing ethics and its impact on customer satisfaction and repurchase intention. *Internet Research*, 26(1), 288-310.
- Ganesh, J., Reynolds, K. E., Luckett, M., & Pomirleanu, N. (2010). Online shopper motivations and e-Store attributes An examination of online patronage behaviour and shopper typologies. *Journal of Retailing*, 86, 106-115.
- Gehrt, K. C. & Shim, S. (1998). A shopping orientation segmentation of French consumers: Implications for catalogue marketing. *Journal of Interactive Marketing*, 12(4), 34-46.
- Gonzalez, M. E. (2019). Improving customer satisfaction of a healthcare facility: Reading the customers' needs. *Benchmarking: An International Journal*, 26(3), 854-870.
- Hair, Jr.J F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2016). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) (2<sup>nd</sup>. Ed). Thousand Oaks: Sage.
- Hennig-Thurau, T. & Hansen, U. (2013). *Relationship Marketing: Gaining Competitive Advantage through Customer Satisfaction and Customer Retention*. Berlin: Springer Science and Business Media.
- Hill, W. W., Beatty, S. E., & Walsh, G. (2013). A segmentation of adolescent online users and shoppers. *Journal of Services Marketing*, 27(5), 347-360.

- Huseynov, F. & Ozkan Yildirim, S. (2019). Online consumer typologies and their shopping behaviours in B2C e-commerce platforms. *SAGE Open*, 9(2), 1-19.
- Jaapar, M., Musa, G., Moghavvemi, S., & Saub, R. (2017). Dental tourism: Examining tourist profiles, motivation and satisfaction. *Tourism Management*, 61, 538-552.
- Jaller, M. & Pahwa, A. (2020). Evaluating the environmental impacts of online shopping: A behavioural and transportation approach. *Transportation Research Part D: Transport and Environment*, 80, 102223.
- Janio. (2019). What Makes Malaysian Online Shoppers Tick during Q4 2019? Retrieved on 21<sup>st</sup>, 2020 from <https://janio.asia/sea/malaysia/malaysia-consumer-insights-q4-2019/>
- Jansson, V. (2016). Online shopping Behaviour in Sweden and China: What is different about Chinese Consumers. Retrieved on April 21<sup>st</sup>, 2020 from <http://www.diva-portal.org/smash/record.jsf?pid=diva2%3A899991&dswid=3729>
- Jayawardhena, C., Wright, L. T., & Dennis, C. (2007). Consumers online: Intentions, orientations and segmentation. *International Journal of Retail and Distribution Management*, 35(6), 515-599.
- Karimi, S., Papamichail, K. N., & Holland, C. P. (2015). The effect of prior knowledge and decision-making style on the online purchase decision-making process: A typology of consumer shopping behaviour. *Decision Support Systems*, 77, 137-147.
- Kau, A. K., Tang, Y. E., & Ghose, S. (2003). Typology of online shoppers. *Journal of Consumer Marketing*, 20(2), 139-156.
- Ladhari, R., Gonthier, J., & Lajante, M. (2019). Generation Y and online fashion shopping: Orientations and profiles. *Journal of Retailing and Consumer Services*, 48, 113-121.
- Lewis, P. H. (1994). Attention shoppers: Internet is open. *The New York Times*, 1.
- Li, X., Zhao, X., & Pu, W. (2020). Measuring ease of use of mobile applications in e-commerce retailing from the perspective of consumer online shopping behaviour patterns. *Journal of Retailing and Consumer Services*, 55, 102093.

- Lim, Y. J., Osman, A., Salahuddin, S. N., Romle, A. R., & Abdullah, S. (2016). Factors influencing online shopping behaviour: The mediating role of purchase intention. *Procedia Economics and Finance*, 35(5), 401-410.
- Liu, C. W., Hsieh, A. Y., Lo, S. K., & Hwang, Y. (2017). What consumers see when time is running out: Consumers' browsing behaviours on online shopping websites when under time pressure. *Computers in Human Behaviour*, 70, 391-397.
- Liu, Y., Li, H., Peng, G., Lv, B., & Zhang, C. (2015). Online purchaser segmentation and promotion strategy selection: Evidence from Chinese E-commerce market. *Annals of Operations Research*, 233(1), 263-279.
- Lu, L., Chang, H., & Yu, S. (2013). Online shoppers' perceptions of e-retailers' ethics, cultural orientation, and loyalty: An exploratory study in Taiwan. *Internet Research*, 23(1), 47-68.
- Małecki, K. & Watrobski, J. (2017). The classification of internet shop customers based on the cluster analysis and graph cellular automata. *Procedia Computer Science*, 112, 2280-2289.
- Mikolon, S., Kolberg, A., Haumann, T., & Wieseke, J. (2015). The complex role of complexity: How service providers can mitigate negative effects of perceived service complexity when selling professional services. *Journal of Service Research*, 18(4), 513-528.
- Moriuchi, E. & Takahashi, I. (2016). Satisfaction trust and loyalty of repeat online consumer within the Japanese online supermarket trade. *Australasian Marketing Journal (AMJ)*, 24(2), 146-156.
- Muda, M., Mohd, R., & Hassan, S. (2016). Online purchase behaviour of generation Y in Malaysia. *Procedia Economics and Finance*, 37(16), 292-298.
- Nakano, S. & Kondo, F. N. (2018). Customer segmentation with purchase channels and media touchpoints using single source panel data. *Journal of Retailing and Consumer Services*, 41, 142-152.
- Pandey, S., Chawla, D., & Venkatesh, U. (2015). Online shopper segmentation based on lifestyles: An exploratory study in India. *Journal of Internet Commerce*, 14(1), 21-41.

- Pham, T. S. H. & Ahammad, M. F. (2017). Antecedents and consequences of online customer satisfaction: A holistic process perspective. *Technological Forecasting and Social Change*, 124, 332-342.
- Rezaei, S. & Amin, M. (2013). Exploring online repurchase behavioural intention of university students in Malaysia. *Journal for Global Business Advancement*, 6(2), 92-119.
- Rezaei, S. & Valaei, N. (2018). Apps shoppers' behaviour and the moderating effect of product standardization/brand recognition: a maximum likelihood estimation approach. *International Journal of Electronic Marketing and Retailing*, 9(2), 184-206.
- Rezaei, S. (2015). Segmenting consumer decision-making styles (CDMS) toward marketing practice: A partial least squares (PLS) path modeling approach. *Journal of Retailing and Consumer Services*, 22, 1-15.
- Rezaei, S., Amin, M., & Ismail, W. K. W. (2014). Online patronage intention: An empirical study among Malaysian experienced online shoppers. *International Journal of Retail and Distribution Management*, 42(5), 390-421.
- Rita, P., Oliveira, T., & Farisa, A. (2019). The impact of e-service quality and customer satisfaction on customer behaviour in online shopping. *Heliyon*, 5(10), e02690.
- Rohm, A. J. & Swaminathan, V. (2004). A typology of online shoppers based on shopping motivations. *Journal of Business Research*, 57, 748– 757.
- San, L. Y., Omar, A., & Thurasamy, R. (2015). Online purchase: A study of generation Y in Malaysia. *International Journal of Business and Management*, 10(6), 1.
- Schneider, P. J. & Zielke, S. (2020). Searching offline and buying online: An analysis of showrooming forms and segments. *Journal of Retailing and Consumer Services*, 52, 101919.
- Shi, S., Wang, Y., Chen, X., & Zhang, Q. (2020). Conceptualization of omnichannel customer experience and its impact on shopping intention: A mixed-method approach. *International Journal of Information Management*, 50, 325-336.
- Swinyard, W. R. & Smith, S. M. (2003). Why people (don't) shop online: A lifestyle study of the Internet consumer. *Psychology and Marketing*, 20(7), 567-597.

- Thaichon, P. & Quach, T. N. (2015). The relationship between service quality, satisfaction, trust, value, commitment and loyalty of Internet service providers' customers. *Journal of Global Scholars of Marketing Science*, 25(4), 295-313.
- Tutuncu, O. (2017). Investigating the accessibility factors affecting hotel satisfaction of people with physical disabilities. *International Journal of Hospitality Management*, 65, 29-36.
- Udo, G. J., Bagchi, K. K., & Kirs, P. J. (2010). An assessment of customers' e-service quality perception, satisfaction and intention. *International Journal of Information Management*, 30(6), 481-492.
- Valvi & Fragkos (2012) Critical review of the e-loyalty literature : a purchase centered framework.
- Wang, H. C., Pallister, J. G., & Foxall, G. R. (2006). Innovativeness and involvement as determinants of website loyalty: I. A test of the style/involvement model in the context of Internet buying. *Technovation*, 26(12), 1357-1365.
- Wang, O. & Somogyi, S. (2018). Consumer adoption of online food shopping in China. *British Food Journal*, 120(12), 2868-2884.
- Yalcin, F. & Mehmet, B. A. S. (2012). Elektronik ticarete müşteri memnuniyeti: Firsat siteleri üzerine bir araştırma. *Gazi Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 14(3), 1-16.
- Ye, Q., Li, G., & Gu, B. (2011). A cross-cultural validation of the web usage-related lifestyle scale: An empirical investigation in China. *Electronic Commerce Research and Applications*, 10(3), 304-312.