

Online Consumer's Behavior on Product Review and The Likelihood of Them Being Fraud Victims

Wan Nurazim Ezzati Wan Abdul Rahim¹ and Amrizah Kamaluddin^{2*}

¹Hunter Douglas (M) Sdn Bhd

²Universiti Teknologi MARA Selangor, Malaysia

ABSTRACT

This study is driven by the rising numbers of Malaysian online consumers being fraud victims. This phenomenon is speculated to grow if there is no action taken in minimizing it. The purpose of this study is to examine the relationship between online consumer behaviors on product's review and the likelihood of them being fraud victim. The research was conducted in Malaysia and responses were collected in the form of 5-point Likert scale questionnaire. The non-parametric regression analysis reveals that online consumer behavior on product review significantly influence the likelihood of one to become a fraud victim. In conclusion, consumer behavior in Malaysia is heavily influenced by the review of the products. This single factor has led to their increased likelihood to become fraud victims. In order to minimize their likelihood of becoming fraud victims, online consumers in Malaysia should not easily believe the reviews about certain goods and services which are available on the internet, either provided by authentic users, so-called users, trusted sellers and so-called trusted sellers.

Keywords: Online consumer's behavior, online consumer, product's price and fraud victim.

1. INTRODUCTION

Advancement of technology allows consumers nowadays to hold influential position in demanding a customized, channel-agnostic and social media-powered shopping experience (Price Waterhouse Coopers, 2019). The technology advancement also enables consumers to access global bazaar of goods and services from wherever they are, as long as they are connected to the internet. Thus, in order to sustain in today's Golden Age consumption, businesses may need to take advantage of the technology by investing more in enhancing consumer's shopping experience. Realizing the importance of understanding online consumers' behavior in order to improve their shopping experience, several theories have been developed over the decades focusing on this subject. These theories will be discussed in further details later.

With all these exposures on online consumers' behavior, there is no guarantee that this information is used to serve the main purpose these researches were conducted in the first place, which is to enhance consumers' shopping experience. Fraudsters may inappropriately use this material to exploit the vulnerabilities of online consumers and online businesses. Currently there are only a few researches focusing on fraud victims with the objective of making all proxies involved in the electronic commerce sector well-informed of their risk. Hence, it is crucial to have

* Corresponding Author: amrizah@uitm.edu.my

more researches as aforementioned to equip online consumers with the necessary information to minimize the likelihood of them falling as fraud victims.

Electronic commerce, also known as e-commerce, is a process of buying and selling products by electronic means (Bloomenthal, 2019). Bloomenthal stated in his article on Investopedia that it replaces old-fashioned stores and it allows business deals to be done on international scale without incurring the same overhead as running a brick and mortar store. In 2017, e-commerce market in Malaysia displayed a contribution of 6.3% to its gross domestic product (Malaysian Communications and Multimedia Commission, 2018), increasing from RM75 billion in 2016 to RM85.8 billion in 2017. This is a positive trend showing that more Malaysians, approximately 51.2%, are confident with e-commerce and use it as a platform to shop (Malaysian Communications and Multimedia Commission, 2018).

Among these Malaysians who chose e-commerce as a shopping platform, 84.4% stated that they preferred to shop online because of the convenience in the sense that they can shop wherever and whenever they chose to (Malaysian Communications and Multimedia Commission, 2018); and 73% claimed that the pricing was competitive due to discounts, festive sales, member privileges and cash rebates, which were only available online as an incentive resulting in them choosing e-commerce. In addition to that, various selections of payment methods enticed Malaysian online consumers to purchase online as they were better able to choose the method that suited their circumstances (Malaysian Communications and Multimedia Commission, 2018). Based on these facts, it is obvious that online consumer behavior in Malaysia is mainly affected by convenience, pricing and various payment methods.

1.1 Problem Statement

According to BERNAMA (2019), 3,127 cases of online fraud cases have been reported to Malaysia Computer Emergency Response Team (MyCERT) between January and July 2019, MyCERT reveals that since 2008, online fraud cases reported is the highest compared to other cybercrimes indicating low level of awareness in this issue among Malaysian internet users. In addition to this, Tatham (2018) stated that online shopping fraud attacks have increased by 30% in 2017 compared to 2016 worldwide. This shocking progress of e-commerce schemes usually begin with a data breach and it served as the tip of an iceberg (Tatham, 2018). Based on Frankenfield (2019) of Investopedia, data breach is defined as an illegal access to sensitive information without the consent of the user or owner. Such sensitive information includes full name, credit card numbers, identification card numbers and many more that can be used by fraudsters to gain advantage off the victims. Based on a study done by Ponemon Institute (Norton, 2019), data breach costs a company a \$3.86 million which is considered a huge unnecessary loss. The details on how online fraud affecting the victims psychologically & monetarily will be further elaborated in Chapter 2.

Consumer behavior towards online shopping exposes themselves to the risk of becoming fraud victims. This study focuses on one factor that affects online consumer behavior: product, although in technicality, there are many factors that give impact on consumer behavior. This focused factor was further tested on whether it has a relationship with the likelihood of online consumers being fraud victims. By considering the relationship that these might have, it is hoped to shed some light in curbing the illegal activity of online fraud.

2. LITERATURE REVIEW & HYPOTHESIS DEVELOPMENT

Online shopping has started since 1960s but at that moment, it was between businesses and it involved business documents where they shared it with other companies' machines (Hussung, 2016). In 1984, CompuServe, a major company of e-commerce, introduced Electronic Mall, which

allowed users to purchase from more than 100 online retailers, but it turned out as not a big of a success, however. This was among the first historic move of online retail (Hussung, 2016). Since then, e-commerce has assisted many sellers across various industries and several continents in establishing themselves among buyers and increasing their sales revenue.

2.1 Consumer Behavior

Consumer, in its simplest explanation, is an entity that purchases goods and services and does not sell them, whereas behavior is defined as the way in which one acts particularly towards others. These two words combined, Consumer Behavior (CB) can have various definitions by various authors, but in general it refers to the study of consumer conducts in the marketplace from the moment they enter the market, initiate the procurement decision and finally purchase the items. It also includes post-purchase stages such as usage and disposal of the goods and services they bought (Chand, 2014).

According to Kumar (2010), CB refers to the procurement activities of concluding customers who purchase goods and services for private consumption. Faison (1977) however, fixated on connecting CB with needs: CB is the theory that people have sequences of essentials which lead to get-up-and-go state, while Engel, Blackwell, & Miniard (1986) claimed that CB is entities' actions which are unswervingly involved in earning, exhausting, and disposing of commercial goods and services, plus the judgment developments that lead and define these acts.

There are numerous factors that have impact on online consumer behavior. Hwang and Jeong (2016) found out that there are 23 factors that have impact on online consumer's website usage and 37 factors that facilitate consumers in making their purchases. Both categories consequently constituted as factors that influenced their behavior in online shopping, which is listed in Table 1. Other than the factors mentioned by Hwang and Jeong (2016), there are also customized online advertisements (Ozcelik & Varnali, 2018). It is essential to probe these factors affecting online consumer behavior to understand the relationship it might have with the likelihood of them being fraud victims to give an insight on how to better safeguard online consumers from being vulnerable to fraudster.

Table 1. Factors Affecting Online Consumers' Behavior

Factors related to website usage	Factors related to purchase/post-purchase
1. Individual's demographic	1. Individual's perceived risk
2. Individual's perceived ease of use	2. Individual's attitude towards shopping
3. Individual's perceived usefulness	3. Individual's perceived reputation
4. Individual's perceived playfulness	4. Individual's frequency of internet usage
5. Individual's computer comfort	5. Individual's frequency of internet shopping
6. Individual's attitudes toward the use	6. Individual's shopping enjoyment
7. Individual's intention to use	7. Individual's attitudes toward computers
8. Individual's sociability	8. Individual's past experiences with catalog & TV shopping
9. Individual's computer skills	9. Individual's lifestyles
10. Individual's purchase satisfaction	10. Individual's discretionary time
11. Individual's expected usefulness of E-commerce	11. Individual's demographics (gender, education, age & income)
12. Individual's time availability	12. Individual's perceived privacy
13. Website's information quality	13. Individual's perceived ease of use & usefulness
14. Website's learning capability	14. Individual's personal innovativeness
15. Website's playfulness	15. Individual's product knowledge
16. Website's system quality	16. Individual's confidence in decision making
17. Website's system use	17. Individual's perceived customer support service
18. Website's service quality	
19. Website's system stability	
20. Website's data security	

-
- | | |
|--------------------------------------|--|
| 21. Internet usage by family members | 18. Individual's price perceptions |
| 22. Social disturbance | 19. Individual's IT education |
| 23. Social norms | 20. Individual's perceived compatibility |
| | 21. Individual's utilization |
| | 22. Website's functions supporting information phase |
| | 23. Website's functions supporting agreement phase |
| | 24. Website's functions supporting settlement phase |
| | 25. Website's community component |
| | 26. Website's interface design |
| | 27. Product type |
| | 28. Vendor type & quality |
| | 29. Seal type |
| | 30. Warranties (Security) |
| | 31. News clips |
| | 32. Trust mechanisms (testimonials, size & reputation) |
| | 33. Subjective norms |
| | 34. Network speed |
| | 35. External media influence |
| | 36. Interpersonal influence |
| | 37. Network externality |
-

Source: Information Development (Hwang & Jeong, 2016)

2.2 Online Shopping Trend

According to online Oxford Dictionary, "Online Shopping" is being defined as the action or activity of buying goods or services over the internet and it is considered as electronic commerce. Most researchers used the key word Electronic Commerce, instead of Online Shopping. Electronic commerce is a powerful concept and process that has fundamentally changed the current of human life (Nanehkaran, 2013). Electronic commerce is one of the main criteria of revolution of Information Technology and communication in the field of economy (Nanehkaran, 2013). Electronic commerce, or e-commerce, is the buying and selling of goods and services on the Internet and other than buying and selling, many people use the Internet as a source of information to compare prices or look at the latest products on offer before making a purchase online or at a traditional store (Khan, 2016).

According to Shahriari, Shahriari and Ggheiji (2015), electronic commerce, commonly known as e-commerce, is trading in products or services using computer networks, such as the Internet. Electronic commerce draws on technologies such as mobile commerce, electronic funds transfer, supply chain management, Internet marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems (Shahriari, Shahriari & Ggheiji, 2015). The effects of e-commerce already appear in all areas of business, from customer service to new product design (Gangeshwer, 2013). It facilitates new types of information-based business processes for reaching and interacting with customers like online advertising and marketing, online order taking and online customer service, etc. (Gangeshwer, 2013).

A "Trend" is defined as a general direction in which something is developing or changing. To conclude, this sub section discusses the trend of e-commerce, covering the current e-commerce trend until the future of e-commerce that has been forecasted by analysts and experts with help from statistics.

Dod (2019) claimed that e-commerce sellers and analysts have observed a noteworthy increase in mobile shopping traffic, but conversion rates from browsing products in the mobile to purchasing the product in this channel is still lacking. According to Monetate's 2018 Q2 publication of Ecommerce Quarterly, 52% of e-commerce traffic was generated from mobile devices but converted at a rate of just 1.6%, which is lesser than the conversion rate of desktop and laptop shoppers.

In addition to that, consumers nowadays are more comfortable using social media such as Facebook and Instagram to browse through online catalog before making up their mind on their purchases. This inclination is due to Facebook's acquisition of Instagram in 2012 which in turns make the photo-sharing social media app become one of the most frequented platforms with some 500 million daily users. Due to the advantage of huge exposure of users, the social media makes profit by offering a platform for sponsored posts and social media advertisements letting users to discover products based on their interests and make purchases right from the app.

According to Absolunet (2019), consumers nowadays are increasingly guided by their values and ethics when making procuring decisions. Consumer awareness on the environmental and ethical issues imprints in the manner of their purchases. From sustainability to excessive packaging, consumers are paying sellers who speak to their value system. Other than that, Absolunet (2019) also stated that the return of purchases rates from e-commerce sales are 2 to 4 times greater than in brick-and-mortar retail, and customer expectations of generous return policies is bringing retailers to an expensive tipping point. Back in 2018, since this habit of returning back products that has been bought which in turns resulting some expensive costs to Amazon, Amazon announced it would institute a lifetime-ban for shoppers who accustomed to this habit (Absolunet, 2019).

Jongen (2018) claimed that when consumers can have a seamless shopping journey from offline to online and back, buying goods and services online and in store, that is when the end of online shopping is near. Jongen (2018) also stated that many online retailers want to be bricks-and-clicks, which means that they are experimenting with the benefits that a physical presence brings to their customers. In simpler words, Jongen (2018) predicted that there will be a downward trend of online shopping as shopping in store will be making a comeback.

On the other side of the coin, Dod (2019) stated that mobile commerce, also known as mCommerce, has risen in the last decade and is anticipated to become even more common over the next five years. Dod (2019) advised that e-commerce sellers should consider boosting the mobile experience. In other words, Dod (2019) stated that more consumer will continue to use e-commerce for shopping purposes.

According to Absolunet, as online shoppers take advantage of generous return policies which in turn increases the cost of managing returns, there might be a multitude of retail initiatives to deter returns, ranging from more complex or conditional return policies to incentives of picking up items in store, in order the curb the unsustainable pace at which returns are growing. Generous return policies are offered by online retailers to reduce consumer uncertainties; as there might not be easy returns in future, it may affect the trend of online shopping.

In conclusion, currently online shopping is showing an upward trend. More individuals are choosing e-commerce as a medium of purchasing goods and services and more retailers have come to realization that doing business online cuts cost be it marketing wise or store management wise. With the advancement of technology and wide reach of internet, online shopping is on the rise and is becoming more popular from day to day. There are positive and negative predictions about the future of online shopping. This is realistic as any channel of commerce has its risks, including e-commerce. The future trends will depend entirely on consumers and suppliers. If the risks of e-commerce can be mitigated or there will be an even smoother online consumer

experience, there is no doubt that shopping online will be a preference. As of now, there is not yet a prediction that people would choose e-commerce completely over brick-and-mortar store. In the future, e-commerce and traditional stores may still co-exist in business landscape.

2.3 Online Consumers' Behavior on Product Reviews

Nowadays, there are huge presence of wide range internet-based information sources such as blogs, social media, online rating and survey sites. For instance, there are YouTube.com, Twitter, Facebook and Instagram, where the users of this social media platform offer opinions, ratings and reviews to other users. The users who usually offer opinions, ratings and reviews through the social media platform have many followers and are called influencers as they can encourage consumers' determination to purchase products and services. Word of mouth becomes exceptionally appreciated when it comes to purchasing services that do not have return policies.

Online sellers generally provide two types of product information available to the consumers compared to brick and mortar seller: offering seller-created product information via its Website or any other communication channels such as Facebook Private Message, Instagram Direct Message, WhatsApp and many more; and offering consumer-created product information by consenting existing consumers to post comments on its Website or requesting them for personal reviews about the products and passed it to potential customers as to convince them to buy the product.

Even though sellers provide information about the products, it is different from consumer-created product information in two aspects which are the trustworthiness and offering more consumer-oriented information. According to Bickart and Schindler (2001), the trustworthiness of information source is usually linked to information credibility. Dellarocas (2003) suggested that from the perspective of trustworthiness, consumer-created information is more reliable than seller-created information. When vendors advertise products, they are usually inclined to hide inferior features of the products and only accentuate the worthy aspects. On the other hand, consumers provide honest assessments of the fortes and flaws of the product from the users' perspective; hence, online consumer reviews are viewed to be more dependable than seller-created information.

There are also two differences between online consumer reviews and traditional word-of-mouth. Firstly, the effect of old-fashioned word-of-mouth is stereotypically restricted to a local social network (Brown & Reingen, 1987). On the contrary, the influence of online consumer reviews can extend beyond the local community because it is accessible through internet (Chen & Xie, 2004). Finally, the sources for word-of mouth information are from familiar people, whereas online consumer reviews originate from unfamiliar previous users (Ratchford, Talukdar, & Lee, 2001).

Senecal and Nantel (2004) verified that customers nowadays are counting on online reviews to assist them before their purchase. A study by Wangenheim and Bayon (2004) showed that the usefulness of interpersonal impression depends on the precise features of consumers' evaluation. Thus, it can be concluded that consumers rely heavily on details online reviews in order to make purchasing decision; the more detailed the reviews, the more they are inclined to purchase.

Specific cues like customer feedback sway the product choices of the customers (Huang & Chen, 2006; Ravikumar, Syed Mohammad Ghouse and Narayana Reddy, 2019). Jumin et al. (2008) inferred that the propositions of different consumers impact the selection of subjects more positively than proposed by an expert. However, Hu et al. (2008) justified that the effect of online reviews declines after a certain period of time and Lee et al. (2006) also claimed that the majority of frustration reviews of customers online have the outcome of the conformity consequence.

According to Park, Lee and Han (2017), the quality of online consumer reviews has an optimistic effect on consumer purchasing intention. The same article (2017) also proposed that consumers' purchasing intention rises along with the number of reviews. There are two types of consumers characterized by Park, Lee and Han (2017): low-involvement consumers and high-involvement consumers. Low-involvement consumers are affected by review quantity only whereas high-involvement consumers are affected by both review quantity and quality.

In conclusion, shoppers who review items or services have high probabilities to impact purchasing intention. It is crucial to test how product review influences consumer behavior in the current study to establish the relevance of past researches' theory in today's scenario. In this study, only three constructs were tested which are consumer susceptibility to informational influence scale, online opinion leadership, and visit to product review websites. The questions for the other six constructs namely awareness of product review websites, visit to product review websites prior to product purchase, visit to product review website after product purchase, perceptions of influence of product review websites, perceptions of importance of product review websites and provision of feedback at product review website is similar to the questions proposed for the three constructs chosen. The answer to these six constructs is easily captured when respondents answered the questions from the three constructs chosen. Thus, only the three constructs chosen out of 9 constructs introduced by Bailey (2013).

2.4 Likelihood of One to Become a Fraud Victim

Cyber fraud against individuals has become a universal problem (Levi, 2009; Smith, 2010). The birth of the internet and related technologies has created huge plusses for civilization. At the same time, it has also produced numerous chances for fraudsters to commit frauds worldwide (Levi, 2008; Jewkes & Yar, 2010; Sandywell, 2010; Buchanan & Whitty, 2013; Button, Tapley, & Lewis, 2013; McGuire & Dowling, 2013). Globally, millions of people are beleaguered with thousands of fraudsters that seem relentless trying to scam them regardless the geography (Karstedt & Farrall, 2006; Office of Fair Trading, 2006; Federal Trade Commission, 2007; Australian Bureau of Statistics, 2012).

There is a significance difference between 'computer assisted' and 'computer orientated' crimes: the key word is on the technology involved (Wall, 2007). The former crime used pre-dated modern technology such as the retailing counterfeit goods and services; and the latter associated to the new technologies, such as malicious software (Wall 2007). Wall (2007) also stated that most online frauds fall into the first category. However, there are also online frauds happening in the second category involving malicious processes where fraudster sold their gathered personal information to third parties (Smith, 2010).

Consumer identity frauds have low rates of reporting and this is credited to victim's feelings of self-blame, not knowing who to go to and feeling humiliated (Shichor, Sechrest, & Doocy, 2000; Button, Lewis, & Tapley, 2009; Croall, 2009; Webb, 2010; Hache & Ryder, 2011; McGuire & Dowling, 2013). Goucher (2010) found that only 44% of 655 victims surveyed reported cyber fraud to the police. Looking at the magnitude of the problem, there has been a scarcity of research based on interaction with actual victims on why victims fall for scams (Shichor, Sechrest, & Doocy, 2000; Langenderfer & Shimp, 2001; Button et al., 2009; Office of Fair Trading, 2009; Whitty & Buchanan, 2012; Whitty, 2013).

The Office of Fair Trading (2009) found that there are two main reasons victims responded to scams, which were requests to trust, and power initiates. Fischer and Lea (2013) implied the complexity of becoming a victim of fraud. Shadel (2012) claimed that the process of falling as fraud victim involved luring the potential victim to big gains, build bond with the potential victim, steal the money, and replicate the scam on the same victim. On the other hand, other studies

suggested three stage of becoming fraud victim which are believability, communication, and loss of usefulness to fraud (Modic and Lea, 2011; Modic and Anderson, 2015).

Trait or cognitive state such as impulsivity and lack of self-control increase the likelihood of one becoming fraud victim (Baurneister et al., 1998; Schreck, 1999; Knowles & Linn, 2004; Holtfreter, Reisig, & Pratt, 2008; Holtfreter et al., 2010; Modic & Lea, 2011; Fischer & Lea, 2013; Modic, 2013). Thus, in measuring susceptibility to persuasion, important construct such as sensation seeking, premeditation and self-control should be included (Arnett, 1994; Tangney, Baurneister, & Boone, 2004; Whiteside et al., 2005; Zuckerman, 2007).

2.5 Research Hypothesis

Susceptibility to persuasion scale developed by Modic, Anderson and Palomaki (2018) is defined as a tool to measure vulnerability of potential victim when being persuaded by scammer. According to Modic, Anderson and Palomaki (2018), there are several vulnerability factors that lead to scam compliance behavior which are ability to premeditate, ability to be predictable, ability to control own self, ability to engage in activities requires thinking and ability to pursue differentness relative to others. In this paper, the aforementioned factors are used to measure how vulnerable the respondent in falling as fraud victim.

There are two types of consumers namely low involvement consumer and high involvement consumer. Low-involvement consumers are affected by review quantity rather than quality whereas high-involvement consumers are affected both by review quantity and review quality (Park, Lee, & Han, 2017). The similarity with both consumers is they look at the volume of reviews to make purchasing decision. This means that they can make high quantity of good false reviews to scam these types of consumers. Thanks to internet, making a huge volume of good false reviews does not require the scammer to spend a lot of money. However, if the consumer views the quality of the review instead of quantity of reviews, it may safeguard them into falling as a victim.

H1: The more product review has influence on online consumer behavior, the likelihood of one to become fraud victim significantly increases.

3. RESEARCH DESIGN

3.1 The population and sample

The focus for this study is Malaysian online shoppers. According to Export.gov (2019), there are 16.53 million online shoppers in Malaysia as at January 2019. The unit of analysis is individuals. The sampling technique used is simple random sampling. Questionnaire was both printed and published online. The hardcopy and the link are being handed and shared publicly and the responds are being collected regardless of the background of the respondents. According to Weisberg and Bowen (1977), a sample of 100 is acceptable provided that the sampling procedure is simple random and the researchers agree to take an error of 10%. When publishing the link online and handing in the hardcopy questionnaire, the potential respondent is being reminded that only those who had shop online are welcome to attempt the questionnaire.

3.2 The Data Collection Procedure

Questionnaire consisting of a total of 35 questions were hand-distributed among university students and adults. Links to the online questionnaire was also shared in WhatsApp's groups, Facebook and Instagram, targeting those who have experience in shopping online. The

questionnaires were then collected before 15 November 2019. Information received from the questionnaire was being stored and tabulated in SPSS for further analysis. The questionnaire is divided into five (3) parts: Part A consisting of 15 questions related to demographics, adapted from Kalia (2018); Part B consisting of 10 questions related to consumer behavior on product reviews, adapted from Bailey (2013); and Part C consisting of 10 questions related to likelihood to become fraud victims, adapted from Modic, Anderson and Palomaki (2018).

3.3 Independent Variable

According to Bailey (2013), product review perception by consumer can be measured with three constructs being usage of product review, provision of product review and usage of product review as shown in Table 2.

Table 2. Product review perception by consumer

No	Indicators	Potential outcome (construct)
C1	I often consult other people to help choose the best alternative available from a product class.	Consumer susceptibility to informational influence scale (Usage of product review)
C2	To make sure I buy the right product or brand, I often observe what others are buying and using.	
C3	I frequently gather information from friends and family about a product before I buy.	
C4	I sometimes influence my friends to shop online.	Online opinion leadership (Provision of product review)
C5	People are more likely to come to me more often than I go to them for information about online shopping.	
C6	I can think of at least one person whom I have told about online shopping in the last six months.	
C7	Were you aware of the existence of product review websites?	Visit to product review websites (Usage of product review)
C8	Have you ever visited one of these product review websites?	
C9	To what extent do product review websites influence your online purchase decisions?	
C10	I have provided feedback / review at a product review websites.	

3.4 Dependent Variable

According to Modic, Anderson and Palomaki (2018), the likelihood of one to become fraud victims can be measured with five constructs as shown in Table 3.

Table 3. The likelihood of one to become fraud victims

No	Instruments	Potential outcome (Construct)
E1	I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.	Ability to premeditate (premeditation)
E2	I generally ignore warnings about potential future problems because I think the problems will be resolved before they reach crisis level.	
E3	It is important to me that those who know me can predict what I will do.	

No	Instruments	Potential outcome (Construct)
E4	An important requirement for any friend of mine is personal consistency.	Ability to be predictable (consistency)
E5	I do certain things that are bad for me, if they are fun.	Ability to control own self (self-control)
E6	Pleasure and fun sometimes keep me from getting work done.	
E7	I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.	Ability to engage in activities requires thinking (need for cognitive)
E8	I feel relief rather than satisfaction after completing a task that required a lot of mental effort.	Ability to pursue differentness relative to others (need for uniqueness)
E9	I often try to find a more interesting version of run-of-the-mill products because I enjoy being original.	
E10	When it comes to the products I buy and the situations in which I use them, I have broken customs and rules.	

4. RESULTS AND DISCUSSION OF FINDINGS

4.1 Descriptive Analyses

Table 4 presents the respondent profile. The detailed result shows that among the 23 male respondents, 30% of them have been online shopping fraud victims whereas among 78 female respondents, 27% of them have been online shopping fraud victims. This indicates that the majority of both female and male respondents have never been online shopping fraud victims equivalent to 73% and 70% respondents, respectively.

Looking at Table 4, the majority of respondents were from the age group of 21-35, a total of 64% of respondents. However, the majority of this age group can be described as being careful as 39% of them have never been online shopping fraud victims. In this study of 101 respondents with age varying from <20 to >56, all age groups can be seen as not immune from being fraud victims.

Table 4 also shows that respondents were mainly from the Malay ethnic with 90% of respondents, Chinese and Indian (4% of respondents respectively) and Bumiputra (other than the Malays) with 3% of respondents totalling to 101 respondents. Across these ethnics, 28% respondents have been online shopping fraud victims whereas 72% respondents have not.

Table 4 indicates that all respondents were Malaysian. This question serves as a control to make sure that this study reflects Malaysia economic and social settings by using only Malaysian as subjects. The majority of the respondents stayed in West Malaysia (92% of respondents). Among this, 27% of respondents have been online shopping fraud victims, whereas 6% of respondents stayed in East Malaysia with only 17% of respondent have been a fraud victim more than once, while a total of 2% of respondents who do not stay in Malaysia has been a fraud victim once. It was found that the majority of the respondents were singles with a total of 30% of them having been fraud victims, while 24% married have also fallen as victims to fraud. It is probably good to mention that while mostly single respondents may look like they are fraudsters' targets, which may be true, but it is worth to note that they dominate this study.

According to Table 4, 7% of respondents have reported online shopping fraud to police. This illustrates that the degree of awareness that online shopping fraud needs to be reported to the

police is still not widespread among the community as a total of 93% of respondents had never lodged any police report for online shopping fraud.

Table 4. Respondent's profile

Characteristics	Categories	No	%
Gender	Male	23	23
	Female	78	77
Age	< 20	12	12
	21 - 35	65	64
	36 - 45	14	14
	46 - 55	9	9
	> 56	1	1
Ethnicity	Malays	90	90
	Chinese	4	4
	Indian	4	4
	Bumiputra (Other than the Malays)	3	3
Malaysian	Yes	101	100
	No	0	0
Staying location	West Malaysia	93	92
	East Malaysia	6	6
	Not staying in Malaysia	2	2
Marital status	Single	71	70
	Married	29	29
	Divorced	1	1
Highest level of education	High school	14	14
	Bachelor's degree	62	61
	Professional qualification	11	11
	Master's degree	10	10
	PH.D. or higher	3	3
	None	1	1
Average monthly income	< RM 1,000	14	14
	RM 1,001 - RM 3,000	22	22
	RM 3,001 - RM 5,000	21	21
	RM 5,001 - RM 7,000	12	12
	> RM 7,001	10	10
Current employment status	Dependant	22	22
	Still studying (full time)	32	32
	Employed (Gov. Sector)	23	23
	Employed (Private Sector)	37	37
	Homemaker	3	3
	Seeking employment opportunities	1	1
	Self-employed	3	3
	Retired	1	1
	Not employed (Other than the above)	1	1
Shopping preference	Online shopping	12	12
	In-store shopping	11	11
	Both	77	76
	None	1	1
Frequency of shopping online	< 3	81	80
	> 3	20	20
Satisfaction of shopping online	Yes	49	49

Characteristics	Categories	No	%
	No	52	51
Frequency been online shopping victim	0	73	72
	> 1	28	28
Know someone close been online shopping victim	Yes	51	51
	No	50	50
Frequency of reporting online shopping fraud to police	Yes	7	7
	No	94	93

4.2 Reliability Test

It is to be noted that the overall Cronbach Alpha, α is 0.83, which reflects good reliability (George & Mallery, 2003). In discussing the reliability of the data in this study, questions used to collect data on the dependent variable 'likelihood of one to become fraud victim' is considered as having acceptable reliability. On the other hand, the independent variables 'online consumer behavior on product review' show good reliability respectively. Overall, the questionnaire used for this study to measure the variables is considered to be reliable.

4.3 Normality Test

Table 5. Descriptive statistics for all variables

Variables	N	Mean	Std. Deviation	Skewness	Kurtosis
Online consumer behavior on product review	101	3.50	0.74	-0.66	0.25
Likelihood of one to become fraud victim	101	3.14	0.58	0.46	0.58

In a nutshell, as shown in Table 5, the variable 'online consumer behavior on product review' and 'likelihood of one to become fraud victim' of this study did not comply with the assumption of normality. One of the reasons is that this study used 5-points Likert scale to measure the variables with samples of only 101 respondents. Likert data are widely known to be ordinal, discrete, and have a limited range and these properties violate the assumptions of most parametric tests. Thus, this study proceeded to use non-parametric test.

Table 6. Normality tests for all variables

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Online consumer behavior on product review	.103	101	.010	.962	101	.006
Likelihood of one to become fraud victim	.112	101	.003	.978	101	.083

a. Lilliefors Significance Correction

Table 6 shows tests of normality for all variables. In SPSS, two tests are available for examining the normality of the data. It is noted that when the significant value of the test is less than 0.05, it demonstrates a deviation from normality (Field, 2018). Based on Kolmogorov-Smirnov test (K-S test), online consumer behavior on product review, $df(101) = 0.103$ ($p = 0.010$) and likelihood of one to become fraud victim, $df(101) = 0.112$ ($p = 0.003$) deviated significantly from normal.

However, for Shapiro-Wilk test, which is another test to measure normality, only likelihood of one to become fraud victim shows that it did not deviate significantly from normal with score $df(101) = 0.978$ ($p = 0.083$) while the other shows a significant deviation from normal with online consumer behavior on product review, $df(101) = 0.962$ ($p = 0.006$).

4.4 Correlation Test

Correlation estimates the strength of linear relationship between two variables and the direction of the relationship. The strength of association varies between +1 and -1. The relationship between the two variables is said to be weaker when the value of correlation coefficient goes towards zero. A + sign indicates that it has a positive direction relationship and a – sign vice versa. Three tests to measure correlation are Pearson Correlation for parametric testing, and Spearman Correlation and Kendall Rank Correlation for non-parametric testing.

As the data of this study do not follow the assumption of normality, Spearman Correlation and Kendall Rank Correlation were chosen to test the variables' correlation. In defining the strength of the relationships, Cohen's standard may be used; correlation coefficients between 0.00 and 0.19 represent a very weak association, coefficients between 0.20 and 0.39 represent a weak association, coefficients between 0.40 and 0.59 represent a moderate association, coefficients between 0.60 and 0.79 represent a strong association and coefficients of 0.80 and above represent a very strong relationship.

Looking at Table 7, the outcome for Kendall correlation and Spearman correlation in Table 8 shows that the linear relationship between online consumer behavior on product review and likelihood of one to become fraud victim is considered to have a very significantly positive weak linear association where the value of its correlation coefficient is 0.249 ($n = 101, p < 0.01$) and 0.337 ($n = 101, p < 0.01$) respectively.

To conclude, there is a significant positive weak relationship between online consumer behavior on product review with likelihood of one to become fraud victim. This suggests that between the independent variable with the dependent variable, there is very weak and weak monotonic or linear relationship; this does not however imply that it has no relationship at all.

Table 7. Kendall rank correlation

No	Variables	1	2
1	Online consumer behavior on product review	1	
2	Likelihood of one to become fraud victim	0.249**	1

** . Correlation is significant at the 0.01 level (2-tailed).

Table 8. Spearman correlation

No	Variables	1	2
1	Online consumer behavior on product review	1	
2	Likelihood of one to become fraud victim	0.337**	1

** . Correlation is significant at the 0.01 level (2-tailed).

4.5 Regression Analysis and Hypotheses Testing

As the data in this study do not obey the assumption of normality, it is useful to do nonparametric regression analysis. According to Hazelton (2014), nonparametric regression is defined as methodology for unfolding the tendency between a dependent variable and one or more

independent variables. Hazelton (2015) further explained that this method varies from standard regression models in a sense that it does not depend on solid expectations concerning the relationship between the variables, rather, the data are permitted to express themselves in defining the formula of the fitted regression functions.

This study has one independent variable; thus, a more proper nonparametric regression analysis would be Kruskal-Wallis test for hypothesis testing with the Jonckheere-Terpstra test for testing trend. Kruskal-Wallis test is usually used to compare conditions containing independent scores. This means 10 questions shaping the independent variable is calculated and tabulated inside SPSS with no decimals. Each independent variable is scored with 1 - strongly disagree, 2 - disagree, 3 - unsure, 4 - agree and 5 - strongly agree. However, this test is unable to tell which conditions differ. To make up for this, Jonckheere-Terpstra test is introduced as it able to tell information about whether the order of the conditions is meaningful. The independent variable is run through both tests separately.

As evident in Table 9, both tests signify that the null hypothesis should be rejected as it is less than the significance value of $p = 0.05$. Based on Table 10, the likelihood of one to become fraud victim is significantly affected by online consumer behavior on product price, $H(4) = 23.984$, $p = 0.000$. The latter test in Table 11 indicates that as product review has more influence on online consumer behavior, the median likelihood of one to become fraud victim significantly increased, $j = 2161$, $z = 3.818$, $p = 0.000$, $r = 0.38$.

Table 9. Hypothesis test summary

	Null Hypothesis	Test	Sig.	Decision
1	The influence product review has on online consumer behavior has no effect on the likelihood of one to become fraud victim	Independent-Samples Kruskal-Wallis Test	0.000	Reject the null hypothesis.
2	The influence product review has on online consumer behavior has no effect on the likelihood of one to become fraud victim	Independent-Samples Jonckheere-Terpstra Test for Ordered Alternatives	0.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .050.

Table 10. Independent-samples Kruskal-Wallis test summary

Independent-Samples Kruskal-Wallis Test Summary	
Total N	101
Test Statistic	23.984a
Degree Of Freedom	4
Asymptotic Sig.(2-sided test)	.000

a. The test statistic is adjusted for ties.

Table 11. Independent-samples Jonckheere-Terpstra test for ordered alternatives summary

Independent-Samples Jonckheere-Terpstra Test for Ordered Alternatives Summary	
Total N	101
Test Statistic	2161.000
Standard Error	153.883
Standardized Test Statistic	3.818
Asymptotic Sig.(2-sided test)	.000

5. CONCLUSION AND DIRECTIONS OF FUTURE RESEARCH

Based on the demographic analysis, it can be concluded the majority of respondents in this study preferred to shop both online and in-store. This differs from the statistics provided by Malaysian Communications and Multimedia Commission (2018) that among Malaysians who chose e-commerce in 2018, 84.4% stated that they prefer to shop online. Malaysian consumers have now moved forward in preferring both methods of shopping instead of inclining towards only one method of shopping. With this fact in hand, this study also shows that majority respondents only shopped online less than 3 times in a month. Further explaining this trend, the majority of respondents are not generally satisfied when shopping online compared to shopping in-store.

The majority of respondents in this study have not been an online shopping fraud victim. However, know someone close to them that has been an online shopping fraud victim. This study agrees with Bernama (2019) that there is a low level of awareness on online fraud issue among Malaysian internet users despite knowing online shopping frauds do happen; most of those who have been victims did not lodge police reports.

As for the normality of the data in this study, the variables 'online consumer behavior on product review' and 'likelihood of one to become fraud victim' did not conform with the assumption of normality. This can be explained by the 5-points Likert scale used in measuring the variables with only a small sample of 101 respondents. Thus, this study proceeded to use non-parametric test. On the correlation of the data in this study between each independent variable with the dependent variable, there is very weak and weak monotonic or linear relationship. However, this does not imply that there is no relationship at all between them.

This study runs nonparametric regression analyses which are Kruskal-Wallis Test and Jonckheere-Terpstra Test. Based on the analyses, as product review has more influence on online consumer behavior, the likelihood of one to become fraud victim significantly increased. Nonparametric regression analysis indicates that H1: The more product review has influence on online consumer behavior, the likelihood of one to become fraud victim significantly increase is retained.

This concludes that consumer behavior in Malaysia is heavily influenced by reviews of goods and services provided in websites and on internet generally, compared to the product price and customized online advertisements. This single factor has led to their increased likelihood to become fraud victims. In order to minimize this likelihood, online consumers in Malaysia should not easily believe the reviews about certain goods and services which are available on the internet provided by authentic users, so-called users, trusted sellers and so-called trusted sellers.

There were two limitations to this study. The most obvious limitation was the small-sized sample that did not spread widely to cover equally on the matter of gender, age group, ethnicity, place of current residence (West and East Malaysia), marital status, highest education level, average monthly income and current employment status. These demographic categories should have a more balanced number of respondents in order to establish a fairer and more solid conclusion.

Secondly, this study did not specifically focus on fraud victims, it focused on a more general subject which was online consumers. Thus, this study was not able to explain why fraud victims did not take legal actions by reporting the fraudsters to the police as to explain the low level of awareness among Malaysian regarding cyber fraud. This study only focused on why certain online consumers can fall as fraud victims.

For future studies, it is recommended to have a huge-sized sample to accurately represent the Malaysian population with a more balanced number on the demographic categories. It is also

recommended that upcoming studies be focused on fraud victims in Malaysia specifically to understand reasons of their action for not reporting the online crime to the police.

REFERENCES

- Absolunet. (2019). 10 eCommerce Trends for 2019. Retrieved from <https://10ecommercetrends.com/>.
- Association of Certified Fraud Examiners. (2018). Association of Certified Fraud Examiners. Retrieved from <http://www.acfe.com/fraud-triangle.aspx>
- Arnett, J. (1994). Sensation seeking: A new conceptualization and a new scale. *Personality and Individual Differences*, 16(2), 289–296.
- Association of Certified Fraud Examiners. (2018). Report to the Nations: 2018 Global Study on Occupational Fraud and Abuse Asia-Pacific Edition. Retrieved from https://www.acfe.com/uploadedFiles/ACFE_Website/Content/rtnn/2018/RTTN-Asia-Pacific-Edition.pdf
- Australian Bureau of Statistics. (2012). Personal fraud costs Australians \$1.4 billion. Retrieved from www.abs.gov.au/ausstats/abs@.nsf/mediareleasesbytitle/B634CE9C7619C801CA25747400263E7E?OpenDocument.
- Bailey, A. A. (2005). Consumer Awareness and Use of Product Review Websites. *Journal of Interactive Advertising*, 6(1), 68–81.
- Bailey, J. E., & Pearson, S. W. (1983). Development of a Tool for Measuring and Analyzing Computer User Satisfaction. *Management Science*, 29(5), 530–545. doi: 10.1287/mnsc.29.5.530
- BERNAMA. (2019, August 13). Cyber scams top the list every year. *New Straits Time*. Retrieved from <https://www.nst.com.my/news/nation/2019/08/512452/cyber-scams-top-list-every-year>
- Bickart, B., & Schindler, R. M. (2001). Internet forums as influential sources of consumer information. *Journal of Interactive Marketing*, 15(3), 31–40.
- Bloomenthal, A. (2019, November 18). Electronic Commerce (e-commerce). Retrieved November 25, 2019, from <https://www.investopedia.com/terms/e/ecommerce.asp>.
- Brown, J.J. and Reingen, P.H. (1987) Social Ties and Word-of-Mouth Referral Behavior. *Journal of Consumer Research*, 14, 350-362.
- Button, M., Lewis, C., & Tapley, J. (2009). *Fraud typologies and the victims of fraud literature review*. London, England: National Fraud Authority.
- Button, M., Tapley, J., & Lewis, C. (2013). The 'fraud justice network' and the infra-structure of support for individual fraud victims in England and Wales. *Criminology & Criminal Justice*, 13(1), 37–61.
- Chand, S. (2014, April 2). Consumer Behaviour: Meaning/Definition and Nature of Consumer Behaviour. Retrieved November 25, 2019, from <http://www.yourarticlelibrary.com/marketing/marketsegmentation/consumer-behaviour-meaningdefinition-and-nature-of-consumer-behaviour/32301>.
- Close, A., & Hamlin, M. (2012). *Online Consumer Behavior: Theory and Research in Social Media, Advertising, and E-tail*. (A. C. Scheinbaum, Ed.) (1st ed.). Routledge.
- Croall, H. (2009). White collar crime, consumers and victimisation. *Crime Law and Social Change*, 51, 127–146.
- Dellarocas, C. N. (2003). The Digitization of Word-of-Mouth: Promise and Challenges of Online Feedback Mechanisms. *SSRN Electronic Journal*.
- Dod, R. (2019, January 31). Consumer Online Shopping Trends for 2019. Retrieved from <https://www.visiture.com/blog/consumer-online-shopping-trends-for-2019/>.
- Engel, J. F., Blackwell, R. D., & Miniard, P. W. (1986). *Consumer behavior* (5th ed.). Chicago: CBS.

- Faison, E. W. J. (1977). The Neglected Variety Drive: A Useful Concept for Consumer Behavior. *Journal of Consumer Research*, 4(3), 172.
- Federal Trade Commission. (2007). Consumer fraud in the United States: The second FTC Survey. Retrieved from www.ftc.gov/opa/2007/10/fraud.pdf
- Feick, L. F., & Price, L. L. (1987). The Market Maven: A Diffuser of Marketplace Information. *Journal of Marketing*, 51(1), 83.
- Field, A. P. (2018). *Discovering statistics using Ibm Spss Statistics*. Los Angeles: Sage.
- Fischer, P., Lea, S. E. G., & Evans, K. M. (2013). Why do individuals respond to fraudulent scam communications and lose money? The psychological determinants of scam compliance. *Journal of Applied Social Psychology*, 43(10), 2060–2072.
- Frankenfield, J. (2019, November 18). Data Breach. Retrieved November 25, 2019, from <https://www.investopedia.com/terms/d/data-breach.asp>.
- Gangeshwer, D. (2013). E-Commerce or Internet Marketing: A Business Review from Indian Context. *International Journal of u- and e- Service, Science and Technology*. 6. 187-194. 10.14257/ijunesst.2013.6.6.17.
- George, D., & Mallery, P. (2003). *Spss for Windows step by step: a simple guide and reference*. Boston: Allyn and Bacon.
- Goucher, W. (2010). Becoming a cybercrime victim. *Computer Fraud and Security* (pp. 16–18), Feature, October 2010.
- Hache, A. C., & Ryder, N. (2011). Tis the season to (be jolly?) wise-up to online fraudsters. Criminal on the Web lurking to scam shoppers this Christmas: A critical analysis of the United Kingdom's legislative provisions and policies to tackle online fraud. *Information and Communications Technology Law*, 20, 35–56.
- Harold, H. K. (1995). Some recollections from a quarter century ago. In *NA - advances in consumer research*. Eds. Frank R. Kardes and Mita Sujun. Provo, UT : Association for Consumer Research. 22: 550-552.
- Hazelton, M. L. (2014). *Nonparametric Regression - An Introduction*. Wiley StatsRef: Statistics Reference Online.
- Hu, N., Ling Lu, J. and Zhang, J. (2008), "Do online reviews affect product sales? The role of reviewer characteristics and temporal effects", *Information Technology and Management*, Vol. 9 No. 3, pp. 201-15.
- Huang, J.-H., & Chen, Y.-F. (2006). Herding in online product choice. *Psychology and Marketing*, 23(5), 413–428.
- Hussung, T. (2016, July 28). A History of E-Commerce: Concordia University, St. Paul. Retrieved November 25, 2019, from <https://online.csp.edu/blog/business/history-of-ecommerce>.
- Hwang, Y., & Jeong, J. (2016). Electronic commerce and online consumer behavior research: A literature review. *Information Development*, 32(3), 377-388.
- Jumin, L., Park, D. and Han, I. (2008), "The effect of negative online consumer reviews on product attitude: an information processing view", *Electronic Commerce Research and Applications*, Vol. 7 No. 3, pp. 341-52.
- Jongen, W. (2018). The End of Online Shopping. doi: 10.1142/11106
- Kalia, P. (2018). Who Spends the Highest Penny in Online Shopping? *International Journal of E-Services and Mobile Applications*, 10(2), 1–16.
- Karstedt, S., & Farrall, S. (2006). The moral economy of everyday life. *British Journal of Criminology*, 46, 1011–1036.
- Khan, A. G. (2016). Electronic Commerce: A Study on Benefits and Challenges in an Emerging Economy. *Global Journal of Management and Business Research: B Economics and Commerce*, 16(1), 19–22. Retrieved from https://globaljournals.org/GJMbr_Volume16/3-Electronic-Commerce-A-Study.pdf
- Knowles, E. S., & Linn, J. A. (2004). Approach–avoidance model of persuasion: Alpha and omega strategies for change. In E. S. Knowles & J. A. Linn (Eds.), *Resistance and persuasion* (pp. 117–148). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

- Kotler, P., Saliba, S. J., Turner, R. E., & Wrenn, B. (1995). *Marketing management: analysis, planning, implementation and control*, Canadian eighth edition, Philip Kotler, Ronald E. Turner (8th ed.). Scarborough, Ont.: Prentice-Hall Canada.
- Kumar, P. (2010). *Marketing of hospitality and tourism services* (1st ed.). New Delhi, India: Tata McGraw Hill Education.
- Langenderfer, J., & Shimp, T. A. (2001). Consumer vulnerability to scams, swindles, and fraud: A new theory of visceral influences on persuasion. *Psychology and Marketing*, 18, 763–783.
- Lambrecht, A., & Tucker, C. (2011). When does Retargeting Work? Timing Information Specificity. *SSRN Electronic Journal*.
- Levi, Michael, 2009: *Financial Crime*. In: Michael Tonry (ed.), *Oxford Handbook of Crime and Public Policy*. New York: Oxford University Press, 223–246.
- Macinnis, D.J. and V.S. Folkes. (2010). The disciplinary status of consumer behavior: A sociology of science perspective on key controversies. *Journal of Consumer Research*, 36(6): 899-914.
- Malaysian Communications and Multimedia Commission. (2018). *E-commerce consumers survey 2018*. Malaysia.
- Modic, D., & Lea, SEG. (2011). How Neurotic Are Scam Victims, Really? The Big Five And Internet Scams. 2011 Conference of the International Confederation for the Advancement of Behavioral Economics and Economic Psychology; 2011; Exeter, United Kingdom.
- Modic, D., & Anderson, R. (2015). Its All Over but the Crying: The Emotional and Financial Impact of Internet Fraud. *IEEE Security & Privacy*, 13(5), 99–103.
- Modic, D., Anderson, R., & Palomäki, J. (2018). We will make you like our research: The development of a susceptibility-to-persuasion scale. *Plos One*, 13(3).
- Monetate. (n.d.). *Ecommerce Quarterly report, EQ2 2018: The Right Recommendations*. Ecommerce Quarterly report, EQ2 2018: The Right Recommendations. Monetate. Retrieved from <https://get.monetate.com/eq2-2018-quarterly-report/>
- Nanehkaran, Y. A. (2013). An Introduction To Electronic Commerce. *International Journal Of Scientific & Technology Research*, 2(4), 190–193.
- Norton. (2019). What is a data breach? Retrieved November 25, 2019, from <https://us.norton.com/internetsecurity-privacy-data-breaches-what-you-need-to-know.html>.
- Office of Fair Trading. (2006). *Research on impact of mass marketed scams*. London, England: Author.
- Ozcelik, A. B., & Varnali, K. (2018). Effectiveness of online behavioral targeting: A psychological perspective. *Electronic Commerce Research and Applications*, 33(2019), 1-11.
- Price Waterhouse Coopers. (2019). It's time for a consumer-centred metric: Introducing 'return on experience' Global Consumer Insights Survey 2019. Retrieved from <https://www.pwc.com/gx/en/consumer-markets/consumer-insights-survey/2019/report.pdf>
- Ratchford, Brian & Talukdar, Debabrata & Lee, Myung-Soo. (2001). A Model of Consumer Choice of the Internet as an Information Source. *International Journal of Electronic Commerce*. 5. 7-21.
- Ravikumar, J. S., Syed Mohammad Ghouse, & Reddy, T. N. (2019). Online Customer Comments and their Impact on Consumer Buying Behavior: using Social Cognitive Theory to Understand Consumer Expectations and Media Influences. *International Journal of Recent Technology and Engineering Special Issue*, 8(2S10), 887–892.
- Sandywell, B. (2010). Chapter 3: On the globalization of crime: The Internet and new criminality. In *Handbook of internet crime* (pp. 38–66). Willan Pub
- Schiffman, L. G., Kanuk, L. L., & Hansen Håvard. (2012). *Consumer behaviour: a European outlook*. Harlow: Pearson Education Limited.
- Shadel, D. (2012, March 23). Are You a Scam Victim Waiting to Happen? Doug Shadel, Fraud Victims, O... Retrieved from <https://www.aarp.org/entertainment/books/info-03-2012/excerpt-outsmarting-scam-artists-shadel.html>.

- Shichor, D., Sechrest, D., & Doocy, J. (2000). Victims of investment fraud. In H. Pontell, & D. Shichor (Eds.), *Contemporary issues in crime and criminal justice: Essays in Honor of Gilbert Geis* (pp. 87–96). New York, NY: Prentice Hall.
- Schreck, Christopher. (1999). Criminal victimization and low self-control: An extension and test of a general theory of crime. *Justice Quarterly - JUSTICE Q.* 16. 633-654. 10.1080/07418829900094291.
- Senecal, S. and Nantel, J. (2004) The Influence of Online Product Recommendations on Consumers' Online Choices. *Journal of Retailing*, 80, 159-169.
- Shahriari, Shahriari, & Gheiji. (2015). E-Commerce And It Impacts On Global Trend And Market. *International Journal of Research.* 3. 49-55.
- Sheth, J.N. (1985). History of consumer behavior: A marketing perspective. In C. T. Han & J. N. Sheth (Eds.), *historical perspective in consumer behavior: ACR Singapore Conference*, Singapore. pp: 5-7.
- Sirgy, M.J. (1985). A conceptualization of the consumer behavior discipline. *Journal of the Academy of Marketing Science*, 13(1): 104-121.
- Smith, R. G. (2010). Identity theft and fraud. In Y. Jewkes, & M. Yar (Eds.), *Handbook of internet crime* (pp. 273–301). Cullompton, England: Wiley.
- Solomon, M. R. (1996). *Consumer Behavior: buying, having and being* (6th ed.). Upper Saddle River.
- Suprapti, N.W.S. (2010). *Consumer behaviour*. Bali: Udayana University Press.
- Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High Self-Control Predicts Good Adjustment, Less Pathology, Better Grades, and Interpersonal Success. *Journal of Personality*, 72(2), 271–324.
- Tatham, M. (2018). Russian hackers aren't the only ones to worry about: online shopping fraud report. Retrieved November 3, 2019, from <https://www.experian.com/blogs/ask-experian/the-state-of-online-shopping-fraud/>
- Wall, D. S. (2007). *Cybercrime*. Cambridge, England: Polity.
- Wangenheim, Florian & Bayón, Tomás. (2004). The effect of word of mouth on service switching. *European Journal of Marketing.* 38. 1173-85. 10.1108/03090560410548924.
- Whiteside, S. P., Lynam, D. R., Miller, J. D., & Reynolds, S. K. (2005). Validation of the UPPS impulsive behaviour scale: a four-factor model of impulsivity. *European Journal of Personality*, 19(7), 559–574.
- Whitty, M. (2013). The scammers persuasive techniques model: Development of a stage model to explain the online dating romance scam. *British Journal of Criminology*, 53, 665–884.
- Whitty, M. T., & Buchanan, T. (2012). The Online Romance Scam: A Serious Cybercrime. *Cyberpsychology, Behavior, and Social Networking*, 15(3), 181–183.

