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UNDERSTANDING FACTORS OF DIGITAL ENVIRONMENT THAT AFFECT CONSUMERS' BEHAVIOUR IN VIETNAM

– Vietnamese Market Research



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The impacts of digital world nowadays are proved to be crucial and widely spread all over all aspects of life. Understanding the behaviours of online customers is the first attempt for a successful digital marketing plan

Therefore, this paper is conducted with the purpose of providing an analysis of the possible factors of the digital environment that could have impacts on the behaviour of Vietnamese consumers. In order to do so, a theoretical framework comprising of four independent variables including cost-

efficiency, information satisfaction, customer trust, and internet shopping experiences that have been proved by previous studies to have strong impacts on the purchasing behaviours of consumers in the digital market. These factors are also the main hypothesized to test the reliability and validity within Vietnamese digital market. The researcher has also decided to apply the positivist paradigm under the assistance of survey questionnaire to collect quantitative data from the customer database of a consumer goods retail company he is working at. Specifically, 250 respondents who are Vietnamese customers in the digital market have been randomly selected to participate in this paper under self-administered questionnaire. Findings indicate that while the information satisfaction, customer trust and internet shopping experience have strong impacts on purchasing decision of Vietnamese customers in the digital market, the impacts of cost efficiency seem to be modest.

KEYWORDS:

Consumer behavior, digital environment, digital market, online customer, cost-efficiency, information satisfaction, customer trust, internet shopping experience

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LIST OF ABBREVIATIONS (OR) SYMBOLS

1 INTRODUCTION

1.1. Research Background

The World is changing rapidly, it was over the last decade, the term “digital world” or “digitalization” has been widely spread and highlighted in all aspects of life. According to Taiminen and Karjauoto (2015, pg 635) Digitalization is shaping the ways that consumers and firms are using to interact with each other; and it is also claimed to significantly change the behaviours of customers (Kaplan and Haenlein, 2010, pg 62). Technological innovations are enabling people to capture new opportunities in new market from both consumers’ or businesses’ perspectives thanks to the Internet. Hollensen (2004) (see Hasslinger et al, 2007) claimed that the Internet has developed a new distribution channel, the e-commerce, which has been identified as the significant distribution of the information revolution (Smith and Rupp, 2003). Internet World Stats (2019) shows that the number of active Internet users worldwide is approximately 4 billion people, which accounted for 51.7% of the World’s total population with the growth rate of 976.4% over the period 2000-2017. It was reported that almost \$8 trillion changed hands each year through e-commerce (Manyika and Roxburgh, 2011). And in Vietnamese digital market, the number of Internet users has impressively reaches 68 million (Internetworldstats, 2019) accounted for 70% of the whole population. Furthermore, it is reported that about 78% of Internet users aged 16-64 in Vietnam has made purchase online (Kemp and Moey, 2019). These facts indicate enormous possibilities for government, policy makers and businesses to recognize and embrace.

On the other hand, it also imposes possible threats that requires organizations to make changes to their marketing strategies as consumers in the digital environment has very distinguishing behaviours towards the online products or services. Belleghem (2016) has made it clear that, the challenge to change is inevitable and happens to companies of all sizes, and it is vital that business leaders and marketers must adaptively response to the mainstream acceptance of new technologies and re-think how to meet their customers’ needs. The ever-improving Internet Economy is said to have imposed disruptive effects on business models of many companies, for instance, Automobile companies turn into transportation service firms, hotel and hospitality companies are facing with fierce competition from emerging food and delivery services; companies that previously functioned as software technology products suppliers moved to subscription models

(Bersin, 2016). In the same report, a study conducted by MIT shows that 70% of the CEOs has claimed to have their business models being under attack, and 90% believe they did not have a right leadership team as well as technical skills to adapt.

In the world of Internet, connectivity allows access to extensive information online which significantly change consumers' expectations and their buying behaviour. Consumers in the digital environment can do things that they previously could not, they become more empowered. Consumers can sort product based on desired attributes: price, value, functionality, or any combination of those; consumers can use digital technology to retrieve third-party endorsements and evaluations or the experience of other users (Wind and Mahajan, 2002). It is reported that the US retail industry had spent an impressive number of over \$15 billion in digital ads in 2015 (Allen, 2016).

1.2. Research Motivation and Objectives

From a personal perspective, I have started with this particular topic of digital marketing for 2 years since I first came to Finland. I recognized Finland has a strong technical base that many products or services I used are mostly done online, from the searching of the products till the delivery and tracking of the goods are done completely online. Moreover, I am very interested learning how businesses attempt to reach the customer using different platforms such as websites, social media channels or email. I became even eager after the first get-to-know period with digital marketing and having a chance to implement basic social media marketing skills to promote a product that my sister is trying to sell in Vietnam. I achieved short-term success with a relatively high number of customer orders and foremost, we made revenues.

The reason I perceived this as a short-term success was because I did not know how to continuously grow this customer base other than solely relied on running social media campaign. As a result, there was a plunge in the number of customers and the number of orders from old customers drastically decreased. I acknowledged the efforts I put in understanding the shopping behaviour of online customers and that I did not addressed enough all the elements of an effective digital marketing plan. When I started my first official job as a Brand Marketing assistant at Vinmart, one of the biggest retail company selling consumer goods in Vietnam. They have a huge retail network across the country with thousand of mini markets or often referred to as convenient stores under Vinmart+, and many Supermarkets known as Vinmart in their own business eco-system. They also

own an e-commerce platform targeting the consumer group that prefer making purchase online. However, according to Anh (2019) about the most popular e-commerce sites in Vietnam, it is clearly shown that Shopee, Tiki and Lazada are among the most visited sites when consumers consider to shopping online. Vinmart, on the other hand, does not earn a place within the top 5 even when they have a strong consumer's database and was reported to have suffered from a loss of about US\$ 2 billion (Thang, 2019). According to Linh (2019), the number of Vinmart+ stores has reached about 1,700 stores nationwide and 100 Vinmart supermarkets. However, its presence on the digital market is still limited. Thus, I wish to dedicate this paper of research to provide an understanding of consumers' behaviours when it comes to online shopping, what are the possible factors of the digital environment that could have impacts on Vietnamese online consumers' behaviour. Based on which, the companies might have a better digital marketing plan to target its customers as well as encourage them to making purchase online.

1.3. Research Hypothesis

With the above-mentioned research objectives, the research will strive to adapt the hypothesis based on the studies of Janathanan and Nizar (2018) paying attention to the impacts of digital marketing on the purchasing behaviours of consumers in Sri Lanka in order to test the suitability of those hypotheses in the context of Vietnam. These factors were proved to impose significance impact on the behaviour of Sri Lanka consumers. Furthermore, for the reason that Vietnam and Sri Lanka are both Asian countries, there are certain similarities in term of religion, family & business connection, linguistic, education and work ethics (Black, 2019). The two countries also have an average GDP per capita in 2018 of approximately US\$ 2,000 and US\$ 4,000 respectively; despite the fact that Sri Lanka has a double GDP per capita in compared to Vietnam, Vietnam is a fast developing country with a significant GDP annual growth rate with 7.31% compared to 1.6 (tradingeconomics.com, n.d) . Thus it is rational enough that these factors would also have a significance in Vietnamese market . Specifically, the main hypotheses to be adapted and tested in this paper include:

Original Hypothesis	Adapted Hypothesis
H1: Cost-efficient has impact on consumer purchase behaviour	H1: Cost-efficient has impact on Vietnamese consumer purchase behaviours in Vinmart
H2: Information Satisfaction has an impact on consumer purchase behaviour	H2: Information Satisfaction has an impact on Vietnamese consumer purchase behaviours in Vinmart
H3: Consumer trust has an impact on consumer purchase behaviour	H3: Consumer trust has an impact on Vietnamese consumer purchase behaviours in Vinmart
H4: Internet shopping experience has an impact on consumer purchase behaviour	H4: Internet shopping experience has an impact on Vietnamese consumer purchase behaviours in Vinmart

2 LITERATURE REVIEW

2.1. The online consumers' behaviour

The first step before tapping to develop a marketing strategy is to focus on understanding the customer because it is the heart of marketing (Sexton, 2013). Marketing activities must always take into account of human behaviours whether it is to seek ways to influence buyers, environmentalists, consumer group, competitors (O'Shaughnessy, 1992). When it comes to the behaviour of online or internet consumers, the context becomes even more complicated as previous studies have been focusing on understanding mostly the behaviour of traditional customers with limited research into this new market segments. Even though it is easy to acknowledge that the Internet economy has contributed dramatically to the global economic growth, the topics of what really drives consumers or what factors affects consumers to make online purchase still remain preliminary, thus, raising the need to have a framework to develop an in-depth understanding of consumers' online behaviour (Monswé et al., 2004).

The first approach that is mostly adopted to initialize the understanding of factors that affects customers' online behaviours. Despite the difference outcomes due to the usage of different frameworks, certain points indicate the typical features of online consumers depends on their perceptions. Menon and Kahn (2002); Childers et al. (2001); Mathwick et al. (2001) (cited in Monswé et al., 2004) believed that from the functional and utilitarian dimensions of consumers' perceptions, "ease of use" and "usefulness" are of most importance; and it is "enjoyment" that represent the perceptions of emotional and hedonic dimensions. On the other hand, Baubonienė and Gulevičiūtė (2015) emphasized that they are anxiety, ease of use, usefulness and prices which affects online customers' behaviour. In a more comprehensive and simpler term, Alba et al. (1997) (cited in Park and Kim, 2003) believed that the root cause behind the willingness of customers to shop online is that the online environment enables them to reduce the decision-making process efforts by providing vast selection, information screening, reliability and product comparison. This means that consumers have a tendency to engage in relational behaviours that bring more consistent and more efficient decisions, reduce information processing and perceived risks (Sheth and Parvatiyar, 1995).

The second step is to deep dive into the analysis of consumer decision making process. The first attempt to understand this dimension of traditional consumers was initialized by Cox et al. (1983, cited in Dudovskiy ,2013) with the Five Stage Model that has been used as a foundation of many later studies (Figure 1). The model highlighted the basic 5 steps of consumers during the purchase process including Need Recognition and Problem Awareness; Information Search; Evaluation of Alternatives, Purchase and Post-purchase evaluation.

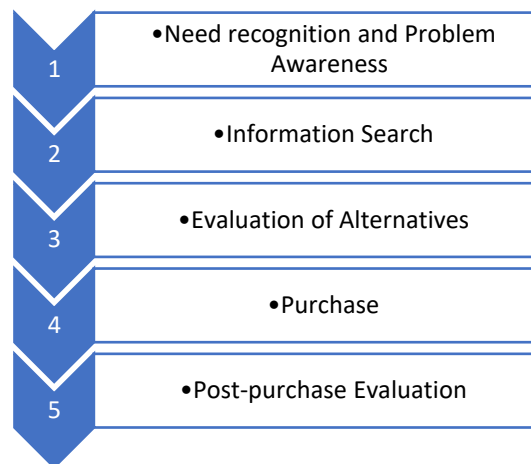


Figure 1. Overall Model of Consumer Behaviour (Dudovskiy , 2013)

However, the emergence of the new online customers' segment, the model is no longer adaptive to the current context. Staplehurst (n.d) claimed that the consumer decision journey has evolved from the early days of brand building and to be successful, marketers should have a solid understanding of the new path to purchase. The consumers purchase funnel contains 5 elements with the shape of a funnel to indicate that the numbers of "active" brands at each point of the decision journey: Awareness, Familiarity, Consideration, Purchase and Loyalty (Beacon News, 2016) (Figure 2).

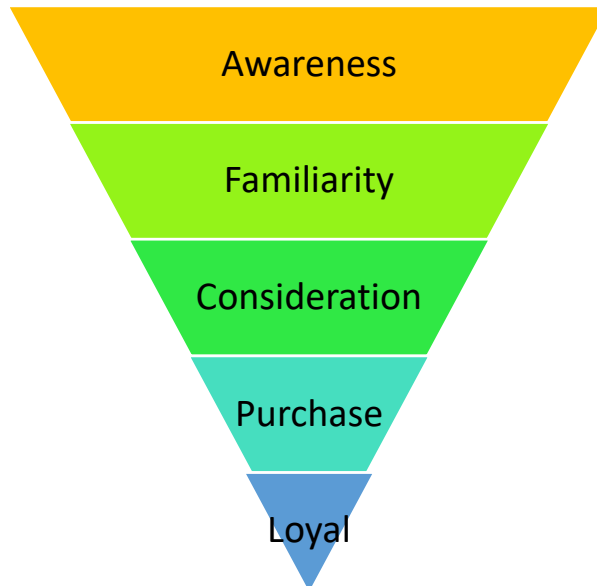


Figure 2. Consumer Purchase Funnel

The aim of this thesis is to provide a analysis of consumers' behaviour in Vietnam online environment including figuring out the factors that makes people to make online purchase by using this new model of consumer decision making journey as a framework to have a better understanding of their behaviour. And on top of that, the ultimate purpose is to better structure and design the digital marketing plan that is interactive and responsive that could assist business in bringing more prospective customers and increasing sales.

2.2. The adoption of digital marketing

As it is clear that, in the new game of the digital economy, where the Internet is a new playground in transforming the traditional way of consumers towards making purchase. It has shaped a new customer segment and transformed the consumer behaviour from which marketers are expected to strategically adapt to their marketing plan. The term "digital marketing" was brought into place to define an alternative way of developing a marketing plan in the digital world. Taiminen and Karjaluoto (2015) implied that digital marketing and social media provide opportunities for business to attract new customers and reach existing one more efficiently. There are several tools and channels from which a marketing department can adopt to develop a strategic digital marketing plan that fits with the organization's objectives and goals. There are certain elements of digital marketing that companies have to take into consideration when they wish to create their online presence for a particular brand. Despite the different viewpoints over the numbers

of elements and how it varies in the names involved in a digital marketing strategy, according to Newtek (2014) there are basically five elements to consider as follow:

Mobile marketing is the first to be mentioned as it is acknowledged that 63% of online traffic nowadays are done on devices such as smartphones and tablets in compared with desktop (Carter, 2019). The second element regards how brands' websites are displayed on search engines will decide the chance that customers can reach the business .That also brings up the third element of content marketing; the better and more optimized content will attract more customers and increase the chance that they will convert into your customers. The key highlight in this perspective of digital marketing is rather business focus on promoting products and services with biased words and description, the values that customers are expected to get from the content will contribute to the overall success. Optimized and high-quality content will also help search engine to better rank a brand on their search engines, thus higher reachability from prospects. The final element that contributes to the attempt of firms to create online presence is via website and email marketing. Christodoulies (2009) cited in Taiminen and Karjakuoto (2015) defined a company's website as the home of brands in the online platform. Moreover, building a list of profitable customers can assist a company to effectively execute email marketing campaign to take care of old and loyal customers or prospects with promotions and additional value proposal. Research has showed that over 65% of consumers are more likely to make a purchase from a well-planned email campaign.

2.3. The Impacts of Digital Marketing on Consumers' Behaviours

2.3.1. Cost Efficiency

The issue of cost is always of great concern by both digital and traditional marketing. However, the issue of cost seems to be different when standing from the perspective of digital marketing rather than conventional marketing (Bala and Verma, 2018). The differences regarding cost efficiency created under the use of digital marketing could be seen in various aspects. First of all, the price range in the digital market seems to be wider than that of the traditional marketing. The traditional retailing industry seems to have lesser number of suppliers in the market which reduce range of price available in the market. Larger numbers of suppliers in the digital market provide customers with wide ranges of price. Customers are provided with larger choices across different brands.

Therefore, the opportunities following which customers could be provided with lower prices in the online market will be higher.

Cost involved in the information search is proved to be of great significance for the change in consumers' behaviours in the digital market (Kannan and Li, 2016). It is highlighted by Kannan and Li (2016) that the traditional customers only search information in approximately 70% of their shopping trips because of the search costs. Nevertheless, in the online environment, the search costs are proved to be excessively lesser contributing to higher demand elasticity of the product types. Under higher ease of search as the consequence of digital marketing, consumers are provided with a large amount of information through various opportunities to be informed more before making any purchasing decision. With the reduced search cost, the purchase processes of customers become more efficient in the digital environment (Reisman et al, 2019).

With more information available in the market, customers' purchasing decision is also affected by other non-price attributes. In fact, online enterprises usually rely on non-price competitive advantages such as service quality in order to retain customer. In fact, Jiang and Rosenbloom (2005) highlighted that non-price attributes are even more critical in attracting and retaining customers and could be considered as a powerful source of sustainable competitive advantages.

2.3.2. Information Satisfaction

In the digital market where the amount of information is vast, customers might feel satisfied or not satisfied with the load of information regarding the products or services provided by a certain supplier. In fact, the factors which might affect the information satisfaction of customers in the online context might vary and be different from the one which affect the overall satisfaction level of customers. The information provided in the Internet might be satisfied or dissatisfied which might be affected by the quality of information and the user interface quality (Riz, 2013). The internet provides user a platform following which users could easily share information. However, they might be not aware of the fact that that information is also processed by the enterprise at the same time with various interpretations. Besides the quality of information, in the Internet, the provided data should be the latest ones which could provide the most up-to-date information which are both useful for them to make purchasing decision and consistent to be perceived as reliable by the organization.

Based on the above discussions, the research's hypothesis is developed as follows:

2.3.3. Customer Trust

The role of trust in the context of digital market is proved to be significantly important. The selective information gathered by customers in the digital market as well as their search behaviours are influenced strongly by their trust (Kannan and Li, 2016). The model of trust building in the online market is developed by Shankar et al (2002) under the application of stakeholder theory. In fact, the consumer trust is developed from a multi-stakeholder's perspective including customers, suppliers and distributors. First of all, regarding customers' points, it is highlighted that customers always demand high level of trustworthiness from the retailing sites in order to protect their transaction as well as personal information. Nevertheless, those needs of customers might not match well with the efficiency perspective of the organization. For example, in order to increase the effectiveness of an advertisement, the marketer might target on a certain group of customers obtrusively. Nevertheless, in fact, according to the research of Goldfarb and Tucker (2011), the impacts of content-based targeted advertisement might not as effective as that of the advertisement that is not targeted which might due to customers' privacy concern.

2.3.4. Internet Shopping Experience

Due to the lower costs involved in the purchasing process of customers in the Internet, customer will tend to purchase in this platform, especially when their Internet experiences are great Chaffey (Chaffey, 2017). The greater the Internet experiences of user is, the higher the possibilities that customers purchase on the Internet. The users who are familiar with the Internet with various purchasing times will develop a wide variety of different perceptions toward the Internet (Li & Zhang, 2002). Thanks to that, the confidence when using the Internet encourages customers to make purchasing decisions in the digital market (Katawetawaraks & Wang, 2011). In contrast, the beginners who have just participated in the Internet, they are prevented from evaluation of the information available in the online platform.

3 METHODOLOGY

3.1. Research Design

Based on the nature of the research topic and the time frame at the time the research is conducted, appropriate research designs and methods will be used to achieve the research project's objectives. According to Yin (1994) cited in Amaratunga (2002), research strategy should be selected in accordance with the research situation and each has its own approach to collect and analyse information and data. The topic of consumers' behaviour is not new and has been continuously studied by various researchers; tapping to the field of the behaviour of online customers which has just been raised in recent years of the new Internet economy, on the other hand, is a new field of study. Thus, previous studies of traditional behaviour of consumers will be rather used as the foundation study for the understanding of this new area. The expected outcomes of this particular research project can be produced using the three research designs: exploratory, descriptive and causal. Moreover, the well adoption of the all three research designs in the online survey world is believed to lead to sounder insights and more qualitative information (Fluidsurveys Team, 2014).

The exploratory research is suitable as the beginning of total research plan as it is commonly used for further defining company issues, area for potential growth rather than collecting statistically accurate data; the common example form of this type of research design is open-ended questions in a survey with the aim of discovering new initiatives or problems related to the research topic. Therefore, this research whose purpose is to examine the issues caused by changing customers' behaviors under the impacts of digital marketing in the context of Vietnam is proved to be suitable with the exploratory research type. Whereas, the descriptive approach with a quantitative nature, is usually pre-planned and structured to statistically reflect an opinion, attitude or behaviour of a population (Fluidsurveys Team, 2014) which is suitable for the examination of the change of consumers' behaviours in the digital marketing context of Vietnam like this research. The causal research, also owns its roots as a quantitative nature, differs in its attempt to explain the cause and effect relationship of different variables which are the main factors of digital environment and the customer buying behaviours towards consumer goods in Vietnam context.

3.2. Research Method

With regards to the choice of research methodology, based on the main objective was to figure out what are the possible factors of the digital environment that could have impacts on the consumers' behaviour and to test out whether the factors impose any significance or relationship with Vietnamese consumers, the quantitative way of researching which rely more on the statistics and numbers that represent opinions or concepts (Amaratunga et al., 2002) seems to be an appropriate choice of research. It is also worth considering that each of the research method has its own strengths and weakness as shown in figure 3, so it is better to have a balanced application of both the method during the projects for optimized and subjective results. According to the choice of research methods, a questionnaire will be developed that covers enough of the information and aspects to gain full quantitative insights of the population. The distribution of the questionnaire also varies across different channel, both online and offline, via social media sites and direct distribution.

Theme	Strengths	Weaknesses
Positivist (quantitative paradigm)	<p>They can provide wide coverage of the range of situations</p> <p>They can be fast and economical</p> <p>Where statistics are aggregated from large samples, they may be of considerable relevance to policy decisions</p>	<p>The methods used tend to be rather inflexible and artificial</p> <p>They are not very effective in understanding processes or the significance that people attach to actions</p> <p>They are not very helpful in generating theories</p> <p>Because they focus on what is, or what has been recently, they make it hard for policy makers to infer what changes and actions should take place in the future</p>
Phenomenological (qualitative paradigm)	<p>Data-gathering methods seen more as natural than artificial</p> <p>Ability to look at change processes over time</p> <p>Ability to understand people's meaning</p> <p>Ability to adjust to new issues and ideas as they emerge</p> <p>Contribute to theory generation</p>	<p>Data collection can be tedious and require more resources</p> <p>Analysis and interpretation of data may be more difficult</p> <p>Harder to control the pace, progress and end-points of research process</p> <p>Policy makers may give low credibility to results from qualitative approach</p>

Figure 3. Strengths and Weakness of 2 research traditions (Adapted from Amaratunga et al., 2002)

Specifically, in this thesis, with the purpose of examining the change in customer behaviour in digital market, the researcher has decided to apply positivist paradigm under the assistance of survey questionnaire to collect quantitative data. The advantage of working as a Brand Marketing assistant at Vinmart allowed the researcher to eligitly get access to the customer database for the necessary data with the research purpose. Accordingly, in a project conducted by the Marketing team with an attempt to understand the purchasing behaviour of Vietnamese consumers of Vinmart for internal use by the board for better planning of Marketing communications and customer-care programs. The researcher took part with the team in building the survey questionnaire to understand consumers behaviour within online environments . The survey distribution was done via internal Vin's CRM (Customer Relationship Management) system, the implementation was scheduled in one week to collect the data. However, the final result was confidential and the researcher is only granted permission by the management level to access to the secondary data which are selective results from randomly selected 250 respondents to avoid misues of the data for commercial purposes. According to Johnston (2014), Secondary data is data developed by someone else for another primary purpose and the key to secondary data is the application of both the theoretical knowledge, and the existing data to address the research questions. the utilization of existing data is an alternative for researchers with limited time and resources. With the inherent consumer database as well as the business eco-system with a giant retail network across the country will also benefit for Vinmart in term of cost and expense for distribution of the survey and the collection of data. Beside the advantages, there are certain drawbacks of the usage of secondary data (Lopez, 2013). The first disadvantage of utilizing this type of data is the inappropriateness of the data; inappropriateness could be the information reflect an entire population, whereas the researcher aim to study a specific region or vice versa. The context of this thesis falls in the aspect that the researcher has restricted access to the full data but randomly selected data to reflect a whole population. However, the relevancy of data can be guaranteed because eventhough the objectives might be different between target users of data, the researcher, on the other hand, has participated in developing the survey questionnaire to ensure the digital aspects of Vietnamese online consumer has enough coverage. Another challenge for using secondary data is the lack of control over data quality (Lopez, 2013). In fact, respondents of Vinmart's survey are granted with incentives for every survey completed, it could be either point rewards or in-store complimentary wifi to encourage more respondents. However, this method will impose inaccuracy of data as it has been reported that about

34% people say the reason to complete survey is because of the incentives (Sorman, 2014). Solutions towards this issues will be presented in the data analysis parts, with the support of the SPSS software v20.0 with scientific designed tests to test out data reliability, and relationship between the variables and the major findings. The design of survey questionnaire, therefore, is presented carefully in the following sections.

3.3. Questionnaire Design and Data Collection

Regarding the design of questionnaire, it is critical to notice that there are two main types of questionnaire which are known as interviewer-administered and self-administered questionnaire. The two types of questionnaire have different strengths and weaknesses whose characteristics are suitable with different type of research. In the project of Vinmart, the self-administered questionnaire is selected as the main data collection instrument under the following motivations.

First of all, the questionnaire which is self-administered by the respondents excludes the involvement and presence of the researcher (Rada, 2019). Therefore, it is totally possible for the researcher to conduct the survey questionnaire in the online platform which is not only quick but also cheap to be conducted. Also, Internet also prevents the limitations due to geographically dispersed condition.

Secondly, self-administered questionnaire reduces the possible bias involved in the process of conducting the survey due to the absence of the researcher (Zutshi et al, 2009). Respondents who are self-administered the questionnaire will be more willing to give honest responses contributing to higher reliability of the collected data (Murdoch et al., 2014).

Thirdly, the respondents will be more convenient when participating in the self-administered questionnaire because they could decide the time and place when they could participate into the survey (Rada, 2019). The personal information of the respondents is also more protected under the use of self-administered questionnaire.

The changes in Vietnamese consumers' behaviours under the context of digital marketing and how they affect their purchasing decision will be analysed under the appropriate design of the survey questionnaire.

The language used in the survey questionnaire is relatively simple in order to prevent misunderstanding in the process of completing the survey questionnaire. Most questions are designed in the form of closed-ended questions with the purpose of reducing the time and efforts of the respondents. Specifically, the questions in the survey are divided into two main types including scale questions and multiple-choice ones. The questionnaire survey is divided into three major types including:

- (1) Respondents' guidelines: The necessary information following which respondents are guided with the steps to follow to reach the objectives of the research will be provided. Accordingly, the respondents are expected to have good understanding of the objectives of the research and clear guidance in order to complete the survey properly. It is also announced for the respondents that they are fully given the right to reject their participation anytime if there is any inconvenience arising during the process of conducting the survey.
- (2) Background information: The general information of the respondents are expected to be examined in this section
- (3) Main parts: The changes in Vietnamese consumers' behaviours under the context of digital marketing and how they affect their purchasing decision are examined in this section with series of Likert scale questions ranging from 1 to 5 with the decelerated level of satisfaction.

3.4. Sampling and Population

It cannot be denied that the role of sampling method is proved to be of great significance in determining the reliability and accuracy of the research finding. Research's sampling techniques fall into two major categories namely probability and non-probability which are used alternatively in the contemporary exploratory and descriptive researches (Aghili, 2011). The characteristic which differentiate non-probability sampling from probability sampling is the approach following which respondents in the population are selected. To be specific, non-probability takes a random approach to select respondents from the sample population while the whole population is considered as the sample size of the research under probability sampling technique (Singh, 2018).

In this research, due to the large sample population of Vietnamese customers in the digital marketing context and limited time duration in the context of a dissertation paper, the researcher is prevented from applying probability sampling. Instead, the non-probability sampling method is applied in order that the researcher will select a sample size of 250 respondents from the database of Vinmart. Specifically, 250 respondents are selected randomly from secondary data collected from a marketing project of marketing team in Vinmart where the researcher is among team members responsible for the design of questionnaire. The researcher has asked for the permissions of the managers to randomly select 250 customers in the customer database of Vinmart who have participated in the customer survey in that project. Specifically, self-selection sampling is applied following that the respondents are allowed to decide to participate into the survey questionnaire or not voluntarily (Etikan & Bala, 2017). This method is advantageous because it increases the possibilities of participation of respondents because the respondents feel more comfortable due to their voluntary participation in the survey questionnaire.

3.5. Type of Data Analysis

The secondary data about the theories of digital marketing and consumer behaviours will be analysed with the support of the document analysis method. The findings from this analysis are presented in chapter 2 – literature review. The secondary data from 250 respondents taken from the market research of Vinmart will be analysed with the support of SPSS version 20.0 software in order to measure change in customer behaviours due to the impacts of digital marketing.

4 DATA ANALYSIS, DISCUSSIONS AND FINDINGS

4.1. Chapter Introduction

After being collected via a survey questionnaire among Vietnamese consumers toward their change in behaviours under the impacts of digital marketing, the data will then be analysed under the application of SPSS Software following which the research objectives of the paper are expected to be obtained.

4.2. Reliability Test

In the reliability test section, the internal consistency of the set of collected data will be measured following which the variables are tested to be whether reliable enough to participate into further analysis of the study. The internal consistency is understood as the level following which all the determinants are measuring the same construct and therefore it is related to the inter-relatedness of the items (Tavakol and Dennick, 2011). The higher the internal consistency is, the higher the validity of the research is. Also, the reliability test helps to reduce the amount of measurement error in a test. It is highlighted by Tavakol and Dennick (2011) that the square of this correlation and subtract from 1.00 indicating the index of measurement error. Specifically, there are three standards which should be met in order that the set of collected data is proved to be internally consisted including:

- (1) The Cronbach's Alpha (α) should be larger than 0.5
- (2) The values of α if Item Deleted are not higher than the α
- (3) The Corrected Item-Total Correlation should be not higher than 0.5

If all three requirements of Cronbach's Reliability Analysis test are met, the set of data is proved to be reliable and internally consistent enough in order to be involved in further tests of the research.

4.2.1. *Cost-Efficient Reliability Test*

Based on the requirement mentioned above of the Cronbach's Alpha Reliability Test and findings from Table 4.1 and 4.2, it is highlighted that all three requirements of the test are well met as follows:

- (1) The α is 0.975 should be larger than 0.5
- (2) The values of α if Item Deleted (including 0.973, 0.955, and 0.961) are not lower than the α
- (3) The Corrected Item-Total Correlation (0.940, 0.957, and 0.954) should be not higher than 0.5

Accordingly, due to the alpha reliability is 0.975, there is 0.05 random error only in the hypothesis because in the scores, there is $0.975 \times 0.975 = 0.95$; $1.00 - 0.95 = 0.05$. The measurement error is very small (0.05), therefore, it is proved that all data of the Cost-efficient hypothesis are relevant and consistent enough to be kept in the conceptual model and involved in further tests of the study

Table 1. Reliability Statistics of Cost-efficient

Cronbach's Alpha	N of Items
.975	3

Table 2. Item-Total Statistics of Cost-efficient

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I tend to search for more detailed information before purchasing in the digital market	6.0000	4.908	.940	.973
Non-price attributes are more important for me than price in the digital market	5.6600	5.422	.957	.955
There are wider price ranges in the digital market in comparison with that in the traditional market	5.7320	5.747	.954	.961

4.2.2. Information Satisfaction Reliability Test

Table 3. Reliability Statistics of Information Satisfaction

Cronbach's Alpha	N of Items
.989	4

Table 4. Item-Total Statistics of Information Satisfaction

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Information provided in the digital markets is helpful	8.9560	11.038	.966	.987
Information provided in the digital markets is relevant	8.8240	10.933	.979	.984
Information provided in the digital markets is up-to-date	8.7400	10.763	.960	.989
Information provided in the digital markets is consistent and easy to understand	8.8920	11.045	.983	.983

Based on the requirement mentioned above of the Cronbach's Alpha Reliability Test and findings from the above two tables, it is highlighted that all three requirements of the test are well met as follows:

- (1) The α is 0.989 should be larger than 0.5
- (2) The values of α if Item Deleted (including 0.987, 0.984, 0.989, and 0.983) are not lower than the α
- (3) The Corrected Item-Total Correlation (0.966, 0.979, 0.960 and 0.983) should be not higher than 0.5

Accordingly, due to the alpha reliability is 0.989, there is 0.02 random error only in the hypothesis because in the scores, there is $0.989 \times 0.989 = 0.98$; $1.00 - 0.98 = 0.02$. The measurement error is very small (0.02), therefore, it is proved that all data of the Information Satisfaction hypothesis are relevant and consistent enough to be kept in the conceptual model and involved in further tests of the study.

4.2.3. Consumer Trust Reliability Test

Table 5. Reliability Statistics of Consumer Trust

Cronbach's Alpha	N of Items
.983	3

Table 6. Item-Total Statistics of Consumer Trust

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I trust in products which are sold in the online market	6.0800	5.793	.955	.982
The transaction in the online market is guaranteed	5.9400	5.157	.980	.964
I am not afraid of spams, hacker attack or virus due to the complete legal framework regarding digital market	5.8360	5.383	.960	.978

Based on the requirement mentioned above of the Cronbach's Alpha Reliability Test and findings from the above two tables, it is highlighted that all three requirements of the test are well met as follows:

- (1) The α is 0.983 should be larger than 0.5
- (2) The values of α if Item Deleted (including 0.982, 0.964 and 0.978) are not lower than the α
- (3) The Corrected Item-Total Correlation (0.955, 0.980 and 0.960) should be not higher than 0.5

Accordingly, it is proved that all data of the Consumer Trust hypothesis are relevant and consistent enough to be kept in the conceptual model and involved in further tests of the study.

4.2.4. Internet Shopping Experience Reliability Test

Table 7. Reliability Statistics of Internet Shopping Experience

Cronbach's Alpha	N of Items
.982	3

Table 8. Item-Total Statistics of Internet Shopping Experience

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
The collection of information in the internet is often less costly than from offline channels	5.8920	5.101	.970	.968
I have high confidence on the Internet	5.9360	5.305	.965	.972
I have various perception of the attribute of the online channel	6.0760	5.581	.953	.981

Based on the requirement mentioned above of the Cronbach's Alpha Reliability Test and findings from the above two tables, it is highlighted that all three requirements of the test are well met as follows:

- (1) The α is 0.982 should be larger than 0.5
- (2) The values of α if Item Deleted (including 0.968, 0.972, and 0.981) are not lower than the α
- (3) The Corrected Item-Total Correlation (0.970, 0.965, and 0.953) should be not higher than 0.5

Accordingly, due to the alpha reliability is 0.982, there is 0.04 random error only in the hypothesis because in the scores, there is $0.982 \times 0.982 = 0.96$; $1.00 - 0.96 = 0.04$. The measurement error is very small (0.04), therefore, it is proved that all data of the Internet Shopping experience hypothesis are relevant and consistent enough to be kept in the conceptual model and involved in further tests of the study.

4.3. Factor Analysis Test

Factor analysis test is frequently used in SPSS analysis with the purpose of measuring the necessity of the variable in the conceptual framework. The variables which pass the following requirements of factor analysis test are proved to have significant role and impacts on the conceptual model and to be necessary to be kept in the framework with the purpose of reducing a large number of determinants into fewer numbers of determinants. The requirements include:

- (1) If Kaiser-Meyer-Olkin Measure of Sampling (KMO) is higher than 0.5, it is highlighted that the sampling is adequate. Meanwhile, if the KMO is lower than 0.5, it is highlighted that there is a large partial correlation in comparison with the sums of correlation indicating that there are widespread correlations.
- (2) Cumulative Extraction Sums of Squared Loadings is higher than 50%
- (3) Sig. is excessively small
- (4) All factor loadings are higher than 0.3

4.3.1. Factor Analysis Test of Cost-efficient

Table 9. KMO and Bartlett's Test of Cost-efficient

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.783
Bartlett's Test of Sphericity	Approx. Chi-Square	1104.731
	df	3
	Sig.	.000

Table 10. Total Variance Explained of Cost-Efficient

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
dim 1	2.870	95.678	95.678	2.870	95.678	95.678
ensi 2	.079	2.647	98.325			
on0 3	.050	1.675	100.000			

Extraction Method: Principal Component Analysis.

Table 11. Factor Loadings of Cost-Efficient

	Component
	1
I tend to search for more detailed information before purchasing in the digital market	.973
Non-price attributes are more important for me than price in the digital market	.981
There are wider price ranges in the digital market in comparison with that in the traditional market	.980

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

According to the results of factor analysis test of Cost-efficient, it can be concluded that all factors involved in this hypothesis is proved to be significant and necessary enough to be kept in the conceptual framework because they satisfy all four requirements of factor analysis test as follows:

- (1) KMO is 0.783 which is higher than 0.5 which indicates that there is no large partial correlation in comparison with the sums of correlation
- (2) Cumulative Extraction Sums of Squared Loadings is 95.678% which is higher than 50%
- (3) Sig. is excessively small which is 0.000
- (4) All factor loadings (0.973, 0.981, and 0.980) are higher than 0.3

4.3.2. Factor Analysis of Information Satisfaction

Table 12. KMO and Bartlett's Test of Information Satisfaction

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.843
Bartlett's Test of Sphericity	Approx. Chi-Square	2147.716
	df	6
	Sig.	.000

Table 13. Total Variance Explained of Information Satisfaction

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.876	96.906	96.906	3.876	96.906	96.906
2	.073	1.817	98.723			
3	.033	.835	99.558			
4	.018	.442	100.000			

Extraction Method: Principal Component Analysis.

Table 14. Factor Loadings of Information Satisfaction

	Component
	1
Information provided in the digital markets is helpful	.981
Information provided in the digital markets is relevant	.988
Information provided in the digital markets is up-to-date	.978
Information provided in the digital markets is consistent and easy to understand	.990

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

According to the results of factor analysis test of Information Satisfaction, it can be concluded that all factors involved in this hypothesis is proved to be significant and necessary enough to be kept in the conceptual framework because they satisfy all four requirements of factor analysis test as follows:

- (1) KMO is 0.843 which is higher than 0.5 which indicates that there is no large partial correlation in comparison with the sums of correlation
- (2) Cumulative Extraction Sums of Squared Loadings is 96.906% which is higher than 50%
- (3) Sig. is excessively small which is 0.000
- (4) All factor loadings (0.981, 0.988, 0.978 and 0.990) are higher than 0.3

4.3.3. Factor Analysis of Consumer Trust

Table 15. KMO and Bartlett's Test of Consumer Trust

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.752
Bartlett's Test of Sphericity	Approx. Chi-Square	1304.018
	df	3
	Sig.	.000

Table 16. Total Variance Explained of Consumer Trust

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
dim 1	2.907	96.891	96.891	2.907	96.891	96.891
ensi 2	.067	2.235	99.125			
on0 3	.026	.875	100.000			

Extraction Method: Principal Component Analysis.

Table 17. Factor Loadings of Consumer Trust

	Component
	1
I trust in products which are sold in the online market	.980
The transaction in the online market is guaranteed	.991
I am not afraid of spams, hacker attack or virus due to the complete legal framework regarding digital market	.982

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

According to the results of factor analysis test of Consumer Trust, it can be concluded that all factors involved in this hypothesis is proved to be significant and necessary enough to be kept in the conceptual framework because they satisfy all four requirements of factor analysis test as follows:

(1) KMO is 0.752 which is higher than 0.5 which indicates that there is no large partial correlation in comparison with the sums of correlation

(2) Cumulative Extraction Sums of Squared Loadings is 96.891% which is higher than 50%

(3) Sig. is excessively small which is 0.000

(4) All factor loadings (0.980, 0.991 and 0.982) are higher than 0.3

4.3.4. Factor Analysis of Internet Shopping Experience

Table 18. KMO and Bartlett's Test of Internet Shopping Experience

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.782
Bartlett's Test of Sphericity	Approx. Chi-Square	1238.827
	df	3
	Sig.	.000

Table 19. Total Variance Explained of Internet Shopping Experience

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
dim 1	2.900	96.677	96.677	2.900	96.677	96.677
ensi 2	.064	2.119	98.797			
on0 3	.036	1.203	100.000			

Extraction Method: Principal Component Analysis.

Table 20. Factor Loadings of Internet Shopping Experience

	Component
	1
The collection of information in the internet is often less costly than from offline channels	.987
I have high confidence on the Internet	.984
I have various perception of the attribute of the online channel	.979

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

According to the results of factor analysis test of Internet Shopping Experience, it can be concluded that all factors involved in this hypothesis is proved to be significant and

necessary enough to be kept in the conceptual framework because they satisfy all four requirements of factor analysis test as follows:

- (1) KMO is 0.782 which is higher than 0.5 which indicates that there is no large partial correlation in comparison with the sums of correlation
- (2) Cumulative Extraction Sums of Squared Loadings is 96.677 % which is higher than 50%
- (3) Sig. is excessively small which is 0.000
- (4) All factor loadings (0.987, 0.984 and 0.979) are higher than 0.3

4.4. Descriptive Analysis

4.4.1. Descriptive Analysis of Cost-Efficient

Table 21. Descriptive Statistics of Cost-Efficient

	I tend to search for more detailed information before purchasing in the digital market	Non-price attributes are more important for me than price in the digital market	There are wider price ranges in the digital market in comparison with that in the traditional market
Valid	250	250	250
Missing	0	0	0
Mean	2.70	3.04	2.96
Mode	2	2	3
Std. Deviation	1.285	1.156	1.088

In terms of Cost-efficient, literature has underlined that the Internet has played a significant role in reducing the costs involved in the purchasing process of consumers which eventually results in the change in the purchasing behaviours of consumers. In terms of Cost-efficient hypothesis, there are three determinants to be taken into careful consideration including (1) information searching, (2) non-price attributes role, and (3) price range.

The most satisfied determinant of the Cost-efficient hypothesis is proved to be the role of non-price attributes (Mean = 3.04, Mode = 2). It is highlighted by various respondents that the non-price attributes are more important for them than price in the digital market.

In fact, in the digital market, the respondents are prevented from seeing and touching the products or services which results in high uncertainty level. Therefore, the customers pay more attention to other non-price attributes like the brand name, guarantee policy, and so on rather than the price attributes of products in order to reduce the unwillingness to purchase under the impacts of high uncertainty level (Bala and Verma, 2018). Customers also highly agree that the price ranges in the digital market are much wider in comparison with that in the traditional market (Mean = 2.96, Mode = 3). There are a wide various range of different suppliers following which the customers are provided with wider choices (Kannan and Li, 2016). However, the wider range of price also makes customers feel unsure because they do not know the reason under huge differences between different suppliers. They will have question toward whether or not the quality of those products is reliable or not (Kannan and Li, 2016).

However, Vietnamese customers do not seem to have the habit of searching for more information before purchasing a product in the digital market (Mean = 2.7, Mode = 2). Although in the digital market, there are various opportunities for the consumers to be informed or fully informed (Reisman et al, 2019), Vietnamese customers still find it hard to reach to the reliable information because they are not provided with necessary tool to filter the necessary and reliable information.

4.4.2. Descriptive Analysis of Information Satisfaction

Consumer satisfaction is a key determinant whose impacts on the performance of organization because it determines the return rate of customers. Regarding information satisfaction, there are four major determinants of information satisfaction determinants to be paid attention to in this section including (1) helpful information, (2) relevant information, (3) up-to-date information, and (4) consistent information.

Among the four determinants of the information satisfaction, the most satisfied determinant is proved to be the up-to-date characteristic (Mean = 3.06, Mode = 2). The Internet is more advantageous than the traditional market in terms of speed. With just one click, the customers are fully informed with the latest information from all over the world. Such a speedy and up-to-date information encourages customers to make purchasing decisions online especially when they want to enjoy the first-mover advantages (Riz, 2013). The second most satisfied determinant is proved to be the relevance of the available information (Mean = 2.98, Mode = 3). Many respondents agree

that the information provided in the digital markets is relevant. In fact, in the Internet, there are various tools for marketers to filter the demand of customers and provide the relevant information for their needs. Accordingly, with key words, customers could easily reach the relevant information which is necessary for the customers.

Table 22. Descriptive Statistics of Information Satisfaction

	Information provided in the digital markets is helpful	Information provided in the digital markets is relevant	Information provided in the digital markets is up-to-date	Information provided in the digital markets is consistent and easy to understand
N Valid	250	250	250	250
Missing	0	0	0	0
Mean	2.85	2.98	3.06	2.91
Mode	2	3	2	3
Std. Deviation	1.109	1.114	1.156	1.094

Information provided in the digital markets, however, is criticized to be not as consistent and easy to understand as expected (Mean = 2.91, Mode = 3). The consistency of the data in the market might be low due to the vast amount of information available in the digital market (Riz, 2013). All users could add information into the digital world which are different from each other which makes the consistency of the information become lower than the expectation of the respondents. Information provided in the digital markets is also not helpful as expected under the points of view of respondents (Mean = 2.85, Mode = 2). The low level of reliability is proved to be a barrier following which the respondents could not rely on those sources of information contributing to lower reliability of the information in the digital market.

4.4.3. Descriptive Analysis of Customer Trust

In terms of customer trust, the digital market as having been mentioned before is different from the traditional market due to the characteristics that all transactions are made online without the direct interaction between related parties (Shankar et al, 2002). Therefore, the role of customer trust in the market of digital world is proved to be of excessive significance.

The most satisfied determinant of customer trust is proved to be the legal framework related to digital market of Vietnamese government (Mean = 3.09, Mode = 2). Various respondents agreed that they are not afraid of spams, hacker attack or virus due to the complete legal framework regarding digital market. The hacker attack and virus in the digital market of Vietnam seem to be hard to see which makes the consumers in Vietnam relatively guaranteed.

Table 23. Descriptive Statistics of Customer Trust

		The transaction in the online market is guaranteed	I trust in products which are sold in the online market	I am not afraid of spams, hacker attack or virus due to the complete legal framework regarding digital market
N	Valid	250	250	250
	Missing	0	0	0
Mean		2.85	2.99	3.09
Mode		2	2	2
Std. Deviation		1.113	1.230	1.197

The quality of products in the online market is proved to be neutrally trusted by Vietnamese customers with Mean = 2.99, Mode = 2. Customers are neither satisfied nor dissatisfied with the quality of products which are sold in the online market.

The least satisfied determinant, finally, is the trust of customers in the online transaction (Mean = 2.85, Mode = 2). Customers criticized that they are not protected when doing online transaction for their purchasing process in digital market which increases their unwillingness to be involved in transactions online (Kannan and Li, 2016).

4.4.4. Descriptive Analysis of Internet Shopping Experience

The experiences in the Internet will also affect the behaviours of customers when doing transaction online. In terms of Internet Shopping Experiences, there are three determinants to be paid attention to including (1) Cost of collecting information, (2) confidence, and (3) variety of perception of attribute.

Various respondents agree that the collection of information in the internet is often less costly than from offline channels (Mean = 3.06, Mode = 2). Accordingly, the respondents are more motivated to use Internet as their channel for information searching and purchasing of products. In addition to that, various respondents show their high level of confidence on the Internet (Mean = 3.02, Mode = 4). The respondents agree that they have great Internet experiences which make them more confident in the Internet and motivate them to use Internet as their primary source of information.

Table 24. Descriptive Statistics of Internet Shopping Experience

		The collection of information in the internet is often less costly than from offline channels	I have high confidence on the Internet	I have various perception of the attribute of the online channel
N	Valid	250	250	250
	Missing	0	0	0
Mean		3.06	3.02	2.88
Mode		2	4	2
Std. Deviation		1.213	1.172	1.121

Nevertheless, the perception of the attribute of the online channel seems to be still limited for various respondents (Mean = 2.88, Mode = 2). Many respondents agree that they have various perception of the attribute of the online channel.

4.5. Multiple Regression Analysis

The relationship between the independent variables and the dependent one will be tested in the multiple regression analysis whose results are provided in the following tables.

Table 25. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.987 ^a	.974	.974	.180	.974	2294.516	4	245	.000

a. Predictors: (Constant), IV4: Internet Shopping Experience, IV1: Cost-efficient, IV2: Information Satisfaction, IV3: Consumer Trust

The sig. of Model Summary is excessively small which is equivalent to 0.000 with the F Change of 2294.516 following which proves the high compatibility level of the set of data in the framework. All data involved in the tests are proved to be compatible and reliable enough.

Table 26. ANOVAb

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	298.827	4	74.707	2294.516	.000 ^a
	Residual	7.977	245	.033		
	Total	306.804	249			

a. Predictors: (Constant), IV4: Internet Shopping Experience, IV1: Cost-efficient, IV2: Information Satisfaction, IV3: Consumer Trust

b. Dependent Variable: I am motivated to make purchasing decision in the Internet

The Mean Square of Regression of this study is 74.707 which proves the fact that the four hypotheses of IV4: Internet Shopping Experience, IV1: Cost-efficient, IV2: Information Satisfaction, IV3: Consumer Trust could explain for 74.707% of the impacts of digital marketing in the purchasing decisions of customers in the Internet.

Table 27. Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.042	.035		1.220	.224
IV1: Cost-efficient	.059	.076	.061	.778	.438
IV2: Information Satisfaction	.886	.092	.879	9.614	.000
IV3: Consumer Trust	-.176	.090	-.184	-1.948	.050
IV4: Internet Shopping Experience	.224	.103	.232	2.166	.031

a. Dependent Variable: I am motivated to make purchasing decision in the Internet

Following the above table, the relationship between independent variables and the purchasing decision of Vietnamese customers in the digital market (as the dependent variable) is tested whose findings are presented in the following section.

Sig. of IV1 – Cost-efficient is 0.438 which is higher than 0.05. This proves the fact that the relationship between Cost-efficient and the purchasing decision of Vietnamese customers in the digital market is weak. IV1, therefore, is not accepted.

Sig. of IV2 – Information Satisfaction is 0.000 which is not higher than 0.05. This proves the fact that the relationship between Information Satisfaction and the purchasing decision of Vietnamese customers in the digital market is strong. IV2, therefore, is accepted.

Sig. of IV3 – Consumer Trust is 0.050 which is not higher than 0.05. This proves the fact that the relationship between Consumer Trust and the purchasing decision of Vietnamese customers in the digital market is strong. IV3, therefore, is accepted.

Sig. of IV4- Internet Shopping Experience is 0.031 which is not higher than 0.05. This proves the fact that the relationship between Internet Shopping Experience and the purchasing decision of Vietnamese customers in the digital market is strong. IV4, therefore, is accepted.

5. CONCLUSIONS AND RECOMMENDATIONS

5.1. Chapter Introduction

In this chapter, the main findings of the research are expected to be brought about under the form of short summary as the conclusion of the whole research. In addition to that, some recommendations are expected to be brought about in order to improve the purchasing intention of customers in the digital market.

5.2. Summary of the main findings

First of all, the reliability test and factor analysis test are conducted following which the internal consistency and the necessity of the set of collected data. After the reliability test, it is concluded that the set of data is proved to be reliable and internally consistent enough in order to be involved in further tests of the research. The results of factor analysis test are also positive following which all variables are proved to have significant role and impacts on the conceptual model and to be necessary to be kept in the framework.

H1: Cost-efficient has impact on Vietnamese consumer purchase behaviours in Vinmart

First of all, in terms of Cost-efficient, the non-price attributes are more important for them than price in the digital market. In fact, in the digital market, the respondents are prevented from seeing and touching the products or services which results in high uncertainty level. Therefore, the customers pay more attention to other non-price attributes like the brand name, guarantee policy, and so on rather than the price attributes of products in order to reduce the unwillingness to purchase under the impacts of high uncertainty level. In addition to that, there are a wide various range of different suppliers following which the customers are provided with wider choices. However, the wider range of price also makes customers feel unsure because they do not know the reason under huge differences between different suppliers. They will have question toward whether or not the quality of those products is reliable or not. However, Vietnamese customers are not having the habit of searching for more information before purchasing a product in the digital market which might be seen as a weakness of the digital market of Vietnam.

H2: Information Satisfaction has impact on Vietnamese consumer purchase behaviours in Vinmart

Secondly, the information available in the digital market is proved to be both up-to-date and relevant. The Internet is more advantageous than the traditional market in terms of speed. With just one click, the customers are fully informed with the latest information from all over the world. Such a speedy and up-to-date information encourages customers to make purchasing decisions online especially when they want to enjoy the first-mover advantages. Also, in the Internet, there are various tools for marketers to filter the demand of customers and provide the relevant information for their needs. Accordingly, with key words, customers could easily reach the relevant information which is necessary for the customers. However, the information provided in the digital markets, however, is criticized to be not as consistent and easy to understand as expected which functions as barrier following which the respondents could not rely on those sources of information contributing to lower reliability of the information in the digital market.

H3: Customer Trust has impact on Vietnamese consumer purchase behaviours in Vinmart

Thirdly, regarding customer trust, it is highlighted that respondents are not afraid of spams, hacker attack or virus due to the complete legal framework regarding digital market. The hacker attack and virus in the digital market of Vietnam seem to be hard to see which makes the consumers in Vietnam relatively guaranteed. Also, customers are neither satisfied nor dissatisfied with the quality of products which are sold in the online market. Nevertheless, customers criticized that they are not protected when doing online transaction for their purchasing process in digital market which increases their unwillingness to be involved in transactions online.

H4: Internet Shopping Experience has impact on Vietnamese consumer purchase behaviours in Vinmart

Various respondents agree that the collection of information in the internet is often less costly than from offline channels. Accordingly, the respondents are more motivated to use Internet as their channel for information searching and purchasing of products. In addition to that, various respondents show their high level of confidence on the Internet. Nevertheless, the perception of the attribute of the online channel seems to be still limited for various respondents.

5.3. Recommendations

There are some areas following which the digital market of Vietnam could be improved in order to enhance the Internet shopping experiences of customers.

First of all, in terms of Cost-efficiency, it is highlighted that although in the digital market, there are various opportunities for the consumers to be informed or fully informed, Vietnamese customers still find it hard to reach to the reliable information because they are not provided with necessary tool to filter the necessary and reliable information. Therefore, it might be advisable for marketers to provide customers with clearer guidance and necessary tools following which they could quickly reach the authentic and reliable information contributing to higher frequency of customers to search for detailed information before purchasing in the digital market.

The consistency of the data in the market might be low due to the vast amount of information available in the digital market. All users could add information into the digital world which are different from each other which makes the consistency of the information become lower than the expectation of the respondents. Therefore, all brands which work in the market should provide their customers with guaranteed source of information which is certified by Vietnamese government as an official source of communicating with their customers. Information provided in that site must be consistent in order to ensure the high reliability and authenticity level.

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Appendix 1 : Questionnaire

I. General Information of Respondents

1. Please select the age range of respondents
 - a. Below 20 years old
 - b. 20 – 40 years old
 - c. Above 40 years old
2. Please select your gender
 - a. Male
 - b. Female

II. Factors of Digital Marketing Affecting Consumers' Behaviours

Please select the level of agreement following the below Likert's scale

- 1 – Totally Disagree
 2 – Disagree
 3 – Neutral
 4 – Agree
 5 – Totally Agree

No.	Statement	1	2	3	4	5
I	Cost-efficient					
1	I tend to search for more detailed information before purchasing in the digital market					
2	Non-price attributes are more important for me than price in the digital market					
3	There are wider price ranges in the digital market in comparison with that in the traditional market					
II	Information Satisfaction					
4	Information provided in the digital markets is helpful					
5	Information provided in the digital markets is relevant					
6	Information provided in the digital markets is up-to-date					

7	Information provided in the digital markets is consistent and easy to understand					
III	Consumer Trust					
8	I trust in products which are sold in the online market					
9	The transaction in the online market is guaranteed					
10	I am not afraid of spams, hacker attack or virus due to the complete legal framework regarding digital market					
IV	Internet Shopping Experience					
11	The collection of information in the internet is often less costly than from offline channels					
12	I have high confidence on the Internet					
13	I have various perception of the attribute of the online channel					
V	Consumer Purchase Behaviours in the Internet					
14	I am motivated to make purchasing decision in the Internet					

