Tomas Bata University in Zlín
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Doctoral Thesis

Factors Affecting Customer Satisfaction: Evidence from Beauty and Cosmetic Online Shopping in Vietnam

Faktory ovlivňující spokojenost zákazníků při on-line nákupu kosmetických výrobků ve Vietnamu

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ABSTRACT

In the context of Beauty and Cosmetic Online Shopping (BCOS) in Vietnam, this thesis investigates key variables that affect customer satisfaction while also evaluating the effects of gender and marital status on such relationships. First, it offers a reliable questionnaire that accurately captures the five constructs of the self-constructed theoretical model: Online Shopping Experience (OSE), External Incentives (EI), Seller Service (SS), Security/Privacy (SP), and Personal Characteristics (PC). The thesis also looks at how gender disparities in these factors affect customers' satisfaction with their online beauty and cosmetics purchases. The findings of the t-tests indicate that male clients are much more satisfied with their purchases than their female counterparts. Additionally, it reveals that male clients are more content with their online buying, customer service, and outside incentives provided by online vendors than their female counterparts. According to the regression analysis, there is a significant and positive correlation between customer satisfaction and the OSE, SS, and EI. Males are more likely to experience this good customer service effect, whereas security and privacy have a greater positive impact on female happiness. Third, the thesis looks into how marital status affects the levels of customer happiness and discovers that married and divorced/separated online buyers have significantly different levels of satisfaction. These findings add to the body of knowledge on customer satisfaction, especially in BCOS. They have repercussions for current internet firms as well as new or future competitors.

ABSTRAKT

V kontextu Beauty and Cosmetic Online Shopping (BCOS) ve Vietnamu tato práce zkoumá klíčové proměnné, které ovlivňují spokojenost zákazníků, a zároveň hodnotí vliv pohlaví a rodinného stavu na takové vztahy. Za prvé, nabízí spolehlivý dotazník, který přesně zachycuje pět konstruktů samostatně vytvořeného teoretického modelu: Online nakupování (OSE), Externí pobídky (EI), Prodejce (SS), Bezpečnost/Soukromí (SP) a Osobní charakteristiky. (PC). Práce se také zabývá tím, jak genderové rozdíly v těchto faktorech ovlivňují spokojenost zákazníků s online nákupy krásy a kosmetiky. Výsledky t-testů ukazují, že mužští klienti jsou se svými nákupy mnohem spokojenější než jejich ženské protějšky. Navíc odhaluje, že mužští klienti jsou spokojenější se svými online nákupy, zákaznickým servisem a vnějšími pobídkami poskytovanými online prodejci než jejich ženské protějšky. Podle regresní analýzy existuje významná a pozitivní korelace mezi spokojeností zákazníků a OSE, SS a EI. U mužů je pravděpodobnější, že zažijí tento dobrý účinek zákaznických služeb, zatímco bezpečnost a soukromí mají větší pozitivní dopad na ženské štěstí. Za třetí, práce se zabývá tím, jak rodinný stav ovlivňuje úroveň spokojenosti zákazníků, a zjišťuje, že ženatí a rozvedení/odloučení online kupující mají výrazně odlišné úrovně spokojenosti. Tato zjištění doplňují soubor znalostí o spokojenosti zákazníků, zejména v BCOS. Mají dopad na současné internetové firmy i na nové či budoucí konkurenty.

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1. INTRODUCTION

1.1 Rationale

This thesis places the emphasis on Customer Satisfaction (CS). According to prior literature, CS (the abbreviation will be interchangeably used as customer satisfaction throughout the present study) remains a critical aspects that affect numerous contours of corporate revenue, and as a consequence, the success achieved by a company. In particular, it assumes great significance in very competitive sectors like the cosmetics/beauty industry for a minimum of two plausible factors: (1) a high CS level can improve the loyalty of old customers while attracting new ones (Park et al., 2019); (2) The role of CS in augmenting the happiness levels of customer towards their consumptions and product/service usage is on the rise. In this study, I contend that the satisfaction of following the use of beauty and cosmetic products could illuminate feelings and experiences (i.e. Kotler, 2000; Hoyer & MacInnis, 2001). According to Nguyen (2020a)**,** customer satisfaction is associated with two core notions. The first one alludes to individual satisfaction relevant to a specific transaction, whereas the second shows the customer's overall (cumulative) satisfaction. Hence, examining the CS levels and customers' post-service attitudes is more useful.

With the proliferation of online channels and digitalisation, in particular, people find it easy and convenient to share their views on the performance of various businesses, which has the ability to affect the outcome of a company. By contrast, in case customers are dissatisfied, the present study posits that negative feedback about an unpleasant buying experience can spread at a fast pace (Zairi, 2000). However, it can be difficult to understand the manner in which and the reasons why customers are dissatisfied notwithstanding the significance of creating and sustaining CS with respect to strategic planning.

When it comes to the gap in existing literature, many studies have placed the emphasis on CS. Having said that, many of these researchers (Hallowell et al., 1996; Bowen et al., 2001; Shankar et al., 2003) opine that the focus is confined to CS' recognition as a pivotal aspect in terms of customer behavior. It has also been found that the impact of CS on customer loyalty is significant. However, there is a *clear* gap in the literature that develops empirical models related to determinants of CS. To address the gap, a questionnaire has been developed as well as validated by the researcher concerning CS and more

specifically, Vietnamese Beauty and Cosmetic Online Shopping (hereafter it will be referred to BCOS).

There are three reasons behind choosing the aforementioned field in Vietnam (Nguyen, 2020ab; Nguyen, 2021). To begin with, the burgeoning growth of online channels has undoubtedly ushered in myriad online services. This includes internet shopping entities, especially in developing countries in Asia such as Vietnam. The credibility of such a postulation is established by a surge in the number of online shoppers. Next, the growth rate of Vietnam's BCOS sector was 115 percent back in the year, 2016 when compared to the previous year, thus exemplifying its popularity. This phenomenon can be ascribed to the country's rapid economic growth, coupled with a range of marketing pursuits and drastic alterations when it comes to business distribution.

The growing demand experienced by Vietnam-based businesses' distribution methods has catapulted the uptake of cosmetic and beauty products (Nguyen, 2020a, b; Nguyen, 2021). As a case in point, trading on social media and the increase in internet business reach has been growing since the year 2015 (World Bank Vietnam, 2020), which has led to a wider range of choices for people to make online purchases. This is because they now have the option to choose their preferred products (which also include branded ones) through company websites and other social media platforms such as Facebook groups. This reach and flexibility have also been able to expand to rural areas of Vietnam, who feel empowered to place online orders for a product of their choice and have it delivered at home – thus creating a sense of knowledge and awareness-based convenience in comparison to physical shopping – and contributing to the BCOS sector's growing market share.

At the same time, the fact that the GDP of Vietnam has been growing at a healthy rate (it was almost 6.8% in 2016) and the concomitant higher living standards have also positively affected the purchasing power of Vietnamese consumers in terms of the BCOS sector (Nguyen, 2020a, b; Nguyen, 2021). Finally but importantly, the current study aims to pinpoint constructs of CS in the cosmetics/beauty market whilst preparing a mechanism to gauge the constructs and carrying out an empirical validation of instruments by leveraging online shoppers' data to provide CS-related practical knowledge to online BCOS businesses in Vietnam. Prior studies have, in the past, come up with questionnaires for investigating differences related to gender in relation

to behavioral patterns concerning financial transactions on the internet to purchase beauty and cosmetics products (Liu et al., 2013; Rita et al., 2019).

More importantly, current knowledge in this field provides evidence on the impact of factors on customers in general (e.g., Rita et al., 2019) as well as on the differences between genders when it comes to online consumers' behaviour (e.g., Liu et al., 2013). However, there is a lack of research looking at female customers' behaviour in BCOS, while the proportion of this kind of customer in this sector has been substantial and dominant. There is also a paucity of studies that have examined different satisfaction levels involving male and female consumers in relation to this topic against the backdrop of the Vietnamese market. While many studies have attempted to explore CS determinants (Giao et al., 2020; Nguyen et al., 2020; Nguyen, 2020a, b; Nguyen, 2021), not even a single of these studies have tried to explore whether marital influence has any effect on the customer satisfaction of online beauty and cosmetic products' buyers, especially in Vietnam's market given that the BCOS sector is one of the fastest growing industries within the nation.

Accordingly, to the best of my knowledge, this is the *first* study that examines the important facets that affect CS and the implications of both genders as well as marital status on these aspects against the backdrop of Vietnam's BCOS market. In general terms, my thesis will be split into three separate studies, the first of which developed and validated the Customer Satisfaction Survey (CSS) Scale by using samples from Vietnam. As of now, only one study has developed and validated questionnaires for different markets. Examples include the development of a questionnaire by Bargas-Avila et al. (2010) for gauging CS in relation to e-Government portals. Aletras et al. (2010), Huber et al. (2007), Phau and Ferguson (2013) and Boß et al. (2016). However, at the time of carrying out this study, no research has identified CS constructs to establish the survey's validity/reliability in the context of data collection within the online shopping industry, the BCOS sector, and in Vietnam. Therefore, I aim to develop and validate a questionnaire on CS in the context of BCOS, in Vietnam.

Secondly, this study will utilize the aforementioned questionnaire within the first portion of CS survey determinants in Vietnam's BCOS market to understand the difference made by gender. So far mixed findings have been revealed by existing literature that has explored gender-related CS levels. While some studies (such as Ross et al., 1999) have not found any major differences, others such as the one conducted by Buller and Buller (1987)

suggest that female users tend to be more satisfied when compared to their male counterparts. On the other hand, authors like Bendall-Lyon and Powers (2002) have exhibited contrasting findings by positing that the proclivity of males being satisfied when compared to females is higher when it comes to the quality of services. However, some studies (Voss & Cova, 2006) postulate that females will derive higher satisfaction levels in the event they are able to experience a heightened sense of happiness in value expressive characteristics as compared to their male counterparts. However, these studies have not examined gender-based dissimilarities of CS determinants whilst buying products in the BCOS sector within Vietnam. According to these studies, both genders have varying preferences concerning processing upon being confronted with message stimuli (Shapiro & Mahajan, 1986; Brunel & Nelson, 2000). Given that previous literature has explored how the quality of a service or product affects customer satisfaction. Thus, I shall expand the scope of the results of the above-mentioned studies across both domains by exploring the manner in which CS determinants have been perceived by males as well as females. In businesses that are marginally online, it seems that the satisfaction of males is affected by how they evaluate perceived functional characteristics whereas, in the case of females, it is the perceived attributes of value expressiveness that make a difference. Colbert (2003) opines that both genders must examine if the product exchange necessitated risks across psychological/functional/economic levels.

Finally, this thesis will be the first one placing on the association between marital status and customer satisfaction in Vietnam. Specifically, I focus on the variations in CS degrees among three different groups: single or never married; legally married; and divorced/separated. Gender is then related to such findings by classifying male and female customer groups of examinations. The motivation is from the fact that the changes in physical and psychological well-being can be a result of legal marriage but this differs between males and females (Williams, 1988; Glenn & Weaver, 1977). In principle, scholars of "selection explanation" opine that married individuals are found to be happier, hence, they have proved a positive relationship between marriage and well-being (Gove et al., 1990). In addition, "social role explanations" scholars support that males may be less likely to face stressful periods than females, and therefore, they seem to obtain more benefits from their legal marriages (Foster et al., 1972). Interestingly, Mookherjee & Png (1995) found that compared to their male peers, females who are legally

married enjoyed a higher level of satisfaction. Despite mixed arguments, the above research still supports marriage, which brings an individual better mental and social well-being, leading to a higher level of CS (see Nguyen & Homolka, 2021). In congruence with the findings of previous studies (Frieze, 1978; Vanfossen, 1981), I predict that gender and marriage are related to each other and they will determine the level of customer satisfaction. As a case in point, CS level can be associated with the quality of legal marriage but that result might be stronger in the female groups than the male groups. Gender is taken into account because of the different orientations and expectations between males and females, especially within the online beauty and cosmetics sectors.

My thesis is expected to significantly complement the CS literature on online beauty and cosmetics shopping in a developing country such as Vietnam. The results raise several implications for existing businesses and future entrants.

1.2 Online Shopping and E-commerce Businesses in Vietnam

The world has experienced considerable changes in our current century, typically significant developments in technology and innovation (Sutherland and Jarrahi, 2018; Le et al., 2020). This affects every aspect of human life, including businesses and their operations through the digital economy concerning interpersonal interactions and, in turn, creating new scientific research and breakthroughs (Hindman, 2018). Notably, the use of the internet has played an incredible role in changing customer behaviour and business types. Along with new information and communications technologies (ICTs), the internet started in developed countries and nowadays spread around the world (Ivanova and Sceulovs, 2018) and then generated a new digital business (IT-driven knowledge enhancement) and reshaping all sectors.

In Vietnam, Nguyen (2020b) has indicated a rapid development of online businesses which can be the result of the internet introduction. Those businesses obtained a growth rate of about thirty percent, (2018). According to Linh (2020), user penetration would increase from 56.7% to 64.4% by 2020-2023. The number of internet users in this country is also expected to increase to 67.8 million in 2021. All these numbers can demonstrate the high e-commerce market of Vietnam on the map of the world. In wake of the heightened competition, physical stores have begun to offer a combination of

physical offerings and e-commerce by engaging with online shoppers to adjust to the growing trend and maintain a competitive edge.

Moreover, research on technology adoption has shown the relationship between customer service quality and the satisfaction of users (Shim and Jo, 2020), especially in the context of e-commerce (Tam et al., 2019). Rodríguez et al. (2020) also found that e-service influences CS levels, which in turn influences e-loyalty.

In Vietnam, online shopping (or OnS) has emerged as a major attraction, especially for female customers. In particular, female customers are increasingly depending on OnS as a vital aspect of their lives (Nguyen, 2020a, b; Nguyen, 2021). At the same time, economies funded and based on technology are transforming how OnS is affecting the purchase habits of both male and female shoppers.

OnS allows them to save time and derive significant benefits. Online marketers must develop a better understanding of customers and focus on the launch of ingenious offerings to make their presence felt. On the part of customers, they have the option of exploring more than one online store in a convenient manner within a short span of time (Mutum et al., 2014). The technological revolution has led to a drastic uptake of digitalisation, especially in the realm of online shopping (Pantano & Priporas, 2016). However, prior literature suggests that OSE's understanding is still an ongoing process notwithstanding its importance (Bilgihan et al., 2016; McLean &Wilson, 2016).

Owing to the ongoing COVID-19 pandemic, online shopping worldwide, including in Vietnam, has emerged as the way in which customers can purchase their products and enjoy remote services. IMF (2020) revealed that mobility has decreased by 25 percent only after one week of the national lockdown. This highlights the importance of my study in the context of Vietnam, where people cared about the government policies related to the COVID-19 pandemic (Wolin & Korgaonkar, 2003; Tien et al., 2021).

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Developing customer satisfaction constructs

2.1.1 Online Shopping Experience (OSE) construct

As per prior studies, the attitude of men attitude towards internet shopping is positive due to their comfort and familiarity with technological growth, but according to Alreck and Settle (2002), the attitudes of women are not unlike those of their male counterparts; on the contrary, women tend to display greater enthusiasm about shopping. However, women do derive lesser satisfaction from OSE than men (Doolin et al., 2005). Due to the lack of consensus in prior studies, it becomes necessary to better understand the role of gender-related differences related to OSE since men are also increasingly using beauty and cosmetic products all over the world (Lai, 2005; Li et al., 2005; Liu et al., 2013).

Several studies (e.g., Dabholkar, 1996; Chang et al., 2013) have measured the quality of customers' e-service by introducing various types of attributes and dimensions. They generally find that the quality of a customer's e-service can be determined by the following factors: In addition, Chang et al. (2013) found that the salesperson plays an essential role in attracting e-commerce shoppers. However, there are few studies on the impact of service quality on the seller, especially in online businesses. Saleem et al. (2017) studied the impacts within the aviation sector and found the essential influence of a salesperson on the repurchase likelihood of customers.

Sustaining CS is the greatest challenge in the domain of online shopping. A key success factor in surviving in a highly competitive electronic environment is to focus on customer service (Nguyen, 2020a, b; Nguyen, 2021). It is imperative for a firm to maintain the quality of its services to make sure that first-time buyers turn into repeat customers (Gounaris et al., 2010). In other words, it is necessary to improve the quality of customer service to ensure positive behaviour (Brady and Robertson, 2001; Sharma & Lijuan, 2015). In addition, Tsao et al. (2016) investigated the effects of trust in the seller on online loyalty using the online shopping experience in Taiwan. They showed that system and electronic service quality significantly affected perceived value, impacting online commitment.

2.1.2   Seller or Customer Service (SS) construct

As mentioned above, online firms must focus on customer satisfaction by delivering excellent quality services that turn first-time buyers into repeat customers (Gounaris et al., 2010) and drive positive behavioural intentions (Brady & Robertson, 2001). As a case in point, the quality of a website is an important aspect of CS because a company's website is the interface via which potential online users derive poignant information on products, such as payments, functions, and attributes of products, thus exemplifying the importance of electronic services (Sharma & Lijuan, 2015). This implies that an e-service's characteristics positively affect CS (Blut et al., 2015) and proper delivery can help make sure that accurate information is provided about the orders of those who make online purchases (Blut, 2016)' this is something that can be gauged only after the completion of payment processes. As per prior studies, when compared to making purchases in a physical store, post-payment customer dissatisfaction tends to happen when they are in the process of purchasing as shoppers are unable to ensure the quality of the services or products ordered by them prior to actually buying them (Liao & Keng, 2013). For this reason, I see fulfilment as a key component of the quality of e-services. In addition, SS covers other aspects like the method of payment, policy-related guarantees, as well as other offerings (Nguyen, 2020a, b; Nguyen, 2021).

During online shopping, streamers or salespeople demonstrate products and advice customers with some choices (Sun et al., 2019). Therefore, my thesis refers the service quality as the live streamers' support and recommendations to their online customers (Ma et al., 2021). Customers can ask questions that the salespersons can respond to immediately, increasing interactivity between the streamer and viewer and leading to greater responsiveness from the streamer (Wang et al., 2011). In addition, Rhee and Choi (2020) further emphasize that the success of online businesses can be determined by the personalization strategy, which can satisfy the needs of individuals. My current research contends a positive relationship between a salesperson's task competence and CS levels, consistent with prior studies in the same field (see among others, Lucia-Palacios et al., 2020; Rod et al., 2016).

Among the many factors influencing customer satisfaction, customer service has emerged as an undisputed predictor of customer satisfaction and retention (Kurata and Nam, 2010). Providing customer service for durable products is not only required by law but also a way for companies to increase

their competitiveness (Li et al., 2014). The most common approach for automotive companies in providing sales services is that salespeople, as technology users, respond to the advantages and disadvantages of using a particular technology. They understand when a specific technology can help or hinder their performance on various tasks (Goodhue, 1995). Therefore, they will "choose the tools and methods to enable them to complete the task with the greatest net benefit" (Dishaw & Strong, 1999, p. 11). To positively impact desired outcomes, the functionality of the technology must be compatible with the task's requirements (Goodhue, 1998).

2.1.3 External Incentives (EI) construct

Typically, online shoppers can make purchases of products and services at lower prices (Rita et al., 2019). At the same time, they do not need to pay for other costs such as expenses of negotiating traffic, spending time, and using energy to compare product prices, thus lowering the burden on internet shoppers that then goes a long way in the obtainment of reduced prices as well as greater accuracy of product information from various sellers online (Nguyen, 2020a, b; Nguyen, 2021). Moreover, customers can receive products and services at a faster pace than physical store shopping, thereby potentially delaying their decision to make the repurchase (Park et al., 2009; Yaylı and Bayram, 2012; Shin and Biocca, 2017).

According to Wang (2011), customers tend to opt for retailers whose promotion policies are deemed more attractive, thus exemplifying the role of promotion in boosting consumers' perceptions of the quality of services, and by extension, CS.

Finally, certain brands may be able to provide improved quality of services to their customers when compared to others (Nguyen, 2020a, b; Nguyen, 2021). Consumers are better informed, more demanding, and more knowledgeable about products and services (Miller et al., 2000); therefore, service providers cannot avoid failing to meet consumers' ever-increasing demands when providing services. Service providers cannot entirely prevent service failures, i.e., service delivery failures that lead to customer dissatisfaction. Maxham (2001) referred to a service failure as an error or problem consumers experience when shopping or communicating with companies. Effective customer service recovery enables service providers to restore customer satisfaction, maintain customer loyalty, and cultivate long-term relationships with customers (Kuo and Wu, 2012; McCollough et al.,

2000). Therefore, it is critical for marketers and researchers better to understand the importance and impact of service recovery.

Significantly, the recent advancement of modern technology has helped improve customer experiences; for example, they can easily purchase their favourite products in a single click and benefit from easy payments. At the same time, it is possible for them to avail several promotion activities, such as price reductions. My study examines whether external incentives such as prices and promotions and timely delivery and return can be a part of explanations for CS levels besides the quality of products. We argue that online shoppers will be more satisfied with better external incentives because the incentives can affect their emotional and psychological values of the shopping experience. These are called hedonic values, which are linked to gratification via fun, fantasy, playfulness, and enjoyment (Eren, Eroglu, & Hacioglu, 2012). Moreover, Moon (2021) claims technology's vital role in modern businesses and their cultures. A higher level of tech quality can lead to better protection of customers' and businesses' confidential information and others' (Ngai, Hu, Wong, Chen, & Sun, 2011).

2.1.4 Security and Privacy (SP) construct

The potential ramifications of privacy/security on CS have been prior studies such as Liu et al. (2013) and Rita et al. (2019), thus justifying the inclusion of this group in my theoretical model. The construct of SP denotes the security associated with payments made by credit cards based on the transactions made in the past; put simply, it is regarded as shared information piracy (Blut, 2016; Nguyen, 2020a, b; Nguyen, 2021). Online businesses must focus on ensuring greater transparency and ease when it comes to the transactions that are to be made from their websites, in order to develop a positive attitude toward online buyers. To that end, they would do well to ensure clarity and security of sensitive confidential data as well as payment details like delivery address, phone number, email address, information regarding credit cards, and demographics (Wang et al., 2016). By the same token, the inability to do that may lead to the erosion of customer satisfaction (Holloway & Beatty, 2008. Schmidt et al. (2008) opine that SP is a vital aspect of an efficacious company website by protecting against fraud in the aftermath of deciding to buy a product online. For this reason, my contention in this thesis

is that the inclusion of SP is necessary owing to its ability to affect CS and trust in general.

This is because customer loyalty has a close correlation with CS (Pham & Ahammad, 2017). According to Kotler and Armstrong (2012), the future of purchasing behavioural pattern is strongly contingent upon customer satisfaction because everything related to online shopping narrows down to CS. More specifically, it affects the tendency of shoppers to repurchase products or services from the same firm on the basis of pleasant outcomes in the past (Filieri & Lin, 2017). It goes without saying that satisfied customers are more likely to consider buying from the same company going forward (Henkel et al., 2006). Customer satisfaction and repurchase intentions can be increased by offering superior service quality (Cronin et al., 2000). As per many studies, there is a positive correlation between repurchase intention and CS. These include the observations made by Blut et al (2015), Kitapci et al. (2014), and Pham and Ahammad (2017). At the same time, trust is known to play a key role in influencing customers' decisions to repurchase a product or service (Gao, 2011). If customers have had pleasant purchasing experiences in the past, there is no reason why they would not like to approach the same seller again (Chek & Ho, 2016).

Customer satisfaction refers to the extent to which people believe that they will feel positive after buying a service (Udo et al., 2010). In this regard, Kotler and Keller (2006) posit that CS stems from the experience garnered by users when making the purchase. It is crucial in influencing customers' future behaviour, such as online repurchases and loyalty (Pereira et al., 2016), especially in a business-to-consumer (B2C) ecosystem (Shin et al., 2013). This is because only satisfied customers are expected to retail particular internet-based retail to their near and dear ones after having a positive buying experience themselves (Pereira et al., 2017), on the other hand, disgruntled users are likely to provide negative feedback about their experiences to others; this exemplifies the close relation of CS with customer intentions, which is an integral aspect of customer behaviour (Holloway et al., 2005), and directly influence customers' positive behavioural preferences. Gounaris et al. (2010) contend that the quality of CS has a positive impact on satisfaction. Customer service quality also has a direct and indirect positive impact on happiness and three behavioural intentions: repurchase intention, WOM, and revisiting the website. According to Sangtani and Murshed (2017), Salespeople play an important role as companies seek to develop market recognition and customer

engagement capabilities. Customer relationship management technology helps salespeople collect and analyse data about customers' past product usage patterns. Customer Relationship Management databases are also used to collect information about service requests and other product usage issues by customers. The information obtained with the help of customer relationship management technology helps salespeople to configure current product offerings or service guarantees and solutions in line with customer requirements (Nguyen, 2020a, b; Nguyen, 2021).

2.1.5   Personal characteristics (PC)

Personal characteristics are also included in the model I used in the thesis. Carey and Ziebermann (2002), opine that PC consisting of important customer details such as gender/age/education/marital status has a significant impact on the perceived hazards of Internet uptake. In this regard, it is notable that the perception levels between men and women were different along with their satisfaction levels when certain websites were used (Simon, 2005). Considering e-commerce as an inextricable part of internet activities, my thesis contends that its findings of Simon are applicable to online shopping as well. Furthermore, previous studies (Chen and Cheng, 2009; Chang & Hong, 2015) have also examined other factors like social interaction, relational embeddedness, and the element of trust Factors related to the transaction are also stressed, including participation volume, the perceived fairness of price, experiences of prior purchase, CS and Internet advertising entailing the adoption of transaction cost economic theories and social identity (Shiau & Chau, 2015; Zhang et al., 2015).

The cultures found in different countries can lead to dissimilar findings regarding which salesperson and the dimension of CS quality are essential to creating a certain narrative for the overall service quality. Fortes et al. (2017) and Wu et al. (2018) argue that the salesperson is an essential factor in purchasing decisions because they directly influence the customers' trust and feelings. If customers were unhappy with the sellers, they might have low confidence in e-commerce, leading to lower sales of the businesses. To proxy for customer trust, prior studies have employed three measures: competence, integrity, and benevolence (Oliveira et al., 2017). According to them, the quality of CS has a positive impact on trust in the retailers they are engaging with (Chiou & Droge, 2006; Cho & Hu, 2009; Rasheed & Abadi, 2014; Wu et

al., 2010, 2018). According to Alrubaiee and Alkaa'ida (2011), the quality of service as far as the health sector is concerned affects customer trust via customer satisfaction in a direct and indirect manner. Online shopping entails a great deal of trust between buyers and sellers in terms of the system whereby the transaction takes place by increasing the level of familiarity and reducing uncertainty (Lee & Turban, 2001; Wu et al., 2018).

Each person exhibits different traits and characteristics that affect their attitudes, loyalty, and behavior when shopping online, which is why it is necessary to carry out research on PC. There may be at least five factors affecting their personality: Neuroticism, Extraversion, Openness, Conscientiousness, and Agreeableness (Digman, 2002). Those factors motivate researchers to conduct studies on CS levels concerning them. Unfortunately, to my knowledge, a lack of literature directly links CS in the beauty and cosmetics sector with PC; therefore, I will fill this void.

2.2 The conceptual framework for CS determinants in BCOS

Many CS models have been introduced by previous studies. For example, as shown in Figure 2.1, the American Customer Satisfaction Framework elucidates how CS is related to determinants, like perceived quality/perceived value and customer expectations (Bryant, 1995). It places the emphasis on the experiences of customers in actual stores. On the other hand, the European Customer Satisfaction Framework Model classifies the value of quality (perceived) into that of price, product, and services – as illustrated n Figure 2.2 (Anderson et al., 2000), with an emphasis on factors related to re-purchase that have an impact on CS. Nevertheless, it needs to be realised these elements may not necessarily be generalizable to BCOS as well as the Vietnamese market (Nguyen, 2020a, b; Nguyen, 2021). Both these models have motivated me to explore various questions concerning customers' perceptions of price, quality, and services. This model also takes into consideration eleven factors identified by Hokanson (1995) which are listed in Figure 2.3.

My model reflects each of these theoretical determinants in the context of the theoretical model (self-constructed) used in this thesis.
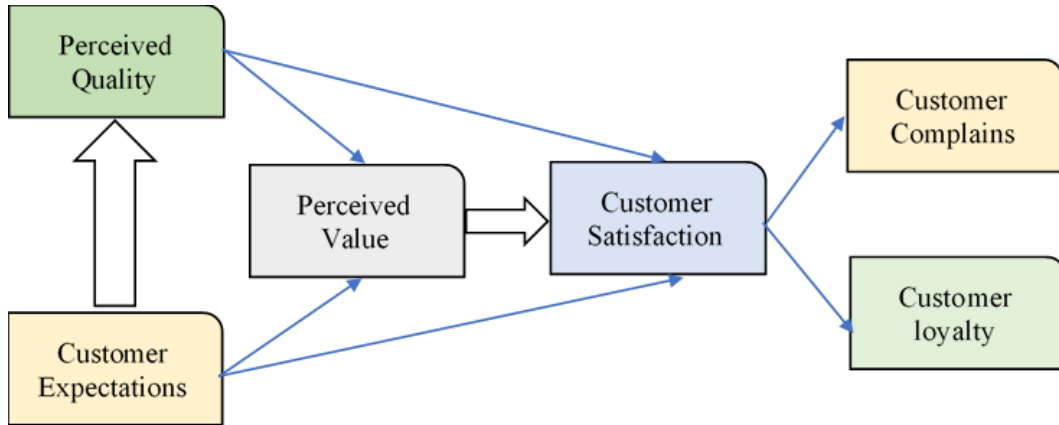
Figure 2.1: American Customer Satisfaction Framework (ACSF)

Source: Bryant (1995)
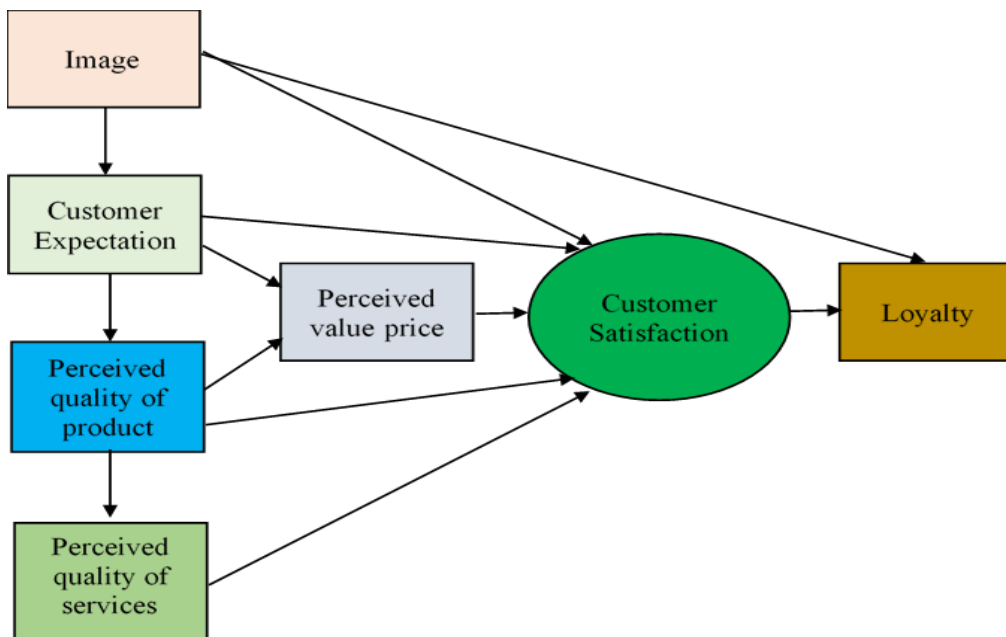
Figure 2.2: European Customer Satisfaction Framework Model (ECSF) Source: Anderson et al., (2000)
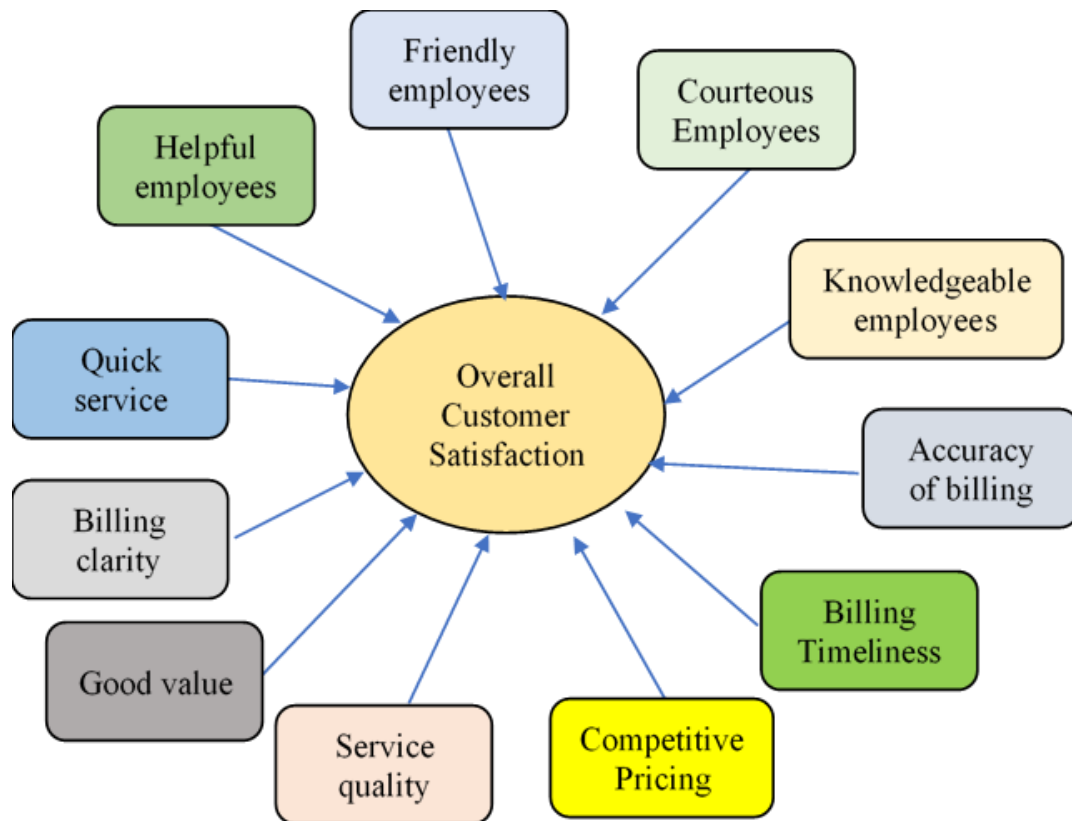
Figure 2.3: Factors impacting CS

Source: Hokanson (1995)

Based on the five aforementioned constructs outlined in Sections 2.1 to 2.5, Figure 2.4 has been constructed; this figure is a graphical representation of the theoretical model. As far as the first construct is concerned (OSE), my study grouped consumers into these three categories: (1) customers with OSE for each product, (2) the ones who do not have any OSE whatsoever, and (3) customers who do have OSE relating to the BCOS sector. To reiterate, my thesis anticipates the previous experiences of customers to have a bearing on their future buying decisions. At the same time, the capacity to buy new products is premised on their prior experiences, which is why it may have an impact on customer satisfaction (Nguyen, 2020a, b; Nguyen, 2021). Meanwhile, the second construct (or SS) is also expected to have a bearing on CS owing to the fact that many factors come into play in shaping customers' experiences. These include delivery mechanisms, order-related issues, method, delivery, a guarantee of fulfilment, the quality of service, and website designs. In case unpleasant experiences pertaining to the aforementioned issues negatively affected the second construct, there might be a deleterious impact

on customer satisfaction. EI, which is the third construct, is based on the conventional marketing contours that comprise Price, Promotion, Product, and Place (McCarthy, 1960). However, the relevancy of online shopping implies that it is acceptable to ignore place in EI. Delivery has already been included within the second construct, whereas opinion source is considered another vital part of the third construct. SP is the last construct and must form part of BCOS's theoretical model due to the important role it plays in online shopping against the backdrop of cyber security. As a case in point, internet hackers or other entities with malevolent intentions can steal sensitive private information and other payment-related details of online buyers (Nguyen, 2020a, b; Nguyen, 2021). In the context of online companies, PS will indubitably have a bearing on customer satisfaction. Unlike prior frameworks, the development of my model is undertaken on the basis of pertinent situations and sector-specific attributes. For this reason, it is able to include elements that can impact customer satisfaction within the Vietnamese BCOS sector.

Congruent with what has been observed in previous CS studies, this part of the thesis has constructed the hypotheses as follows:

H1: A positive correlation exists between internet shopping experiences and customer satisfaction

H2: A positive correlation exists between the services of sellers and customer satisfaction

H3: A positive correlation exists between extraneous incentives and customer satisfaction

H4: A positive correlation exists between privacy/security and customer satisfaction
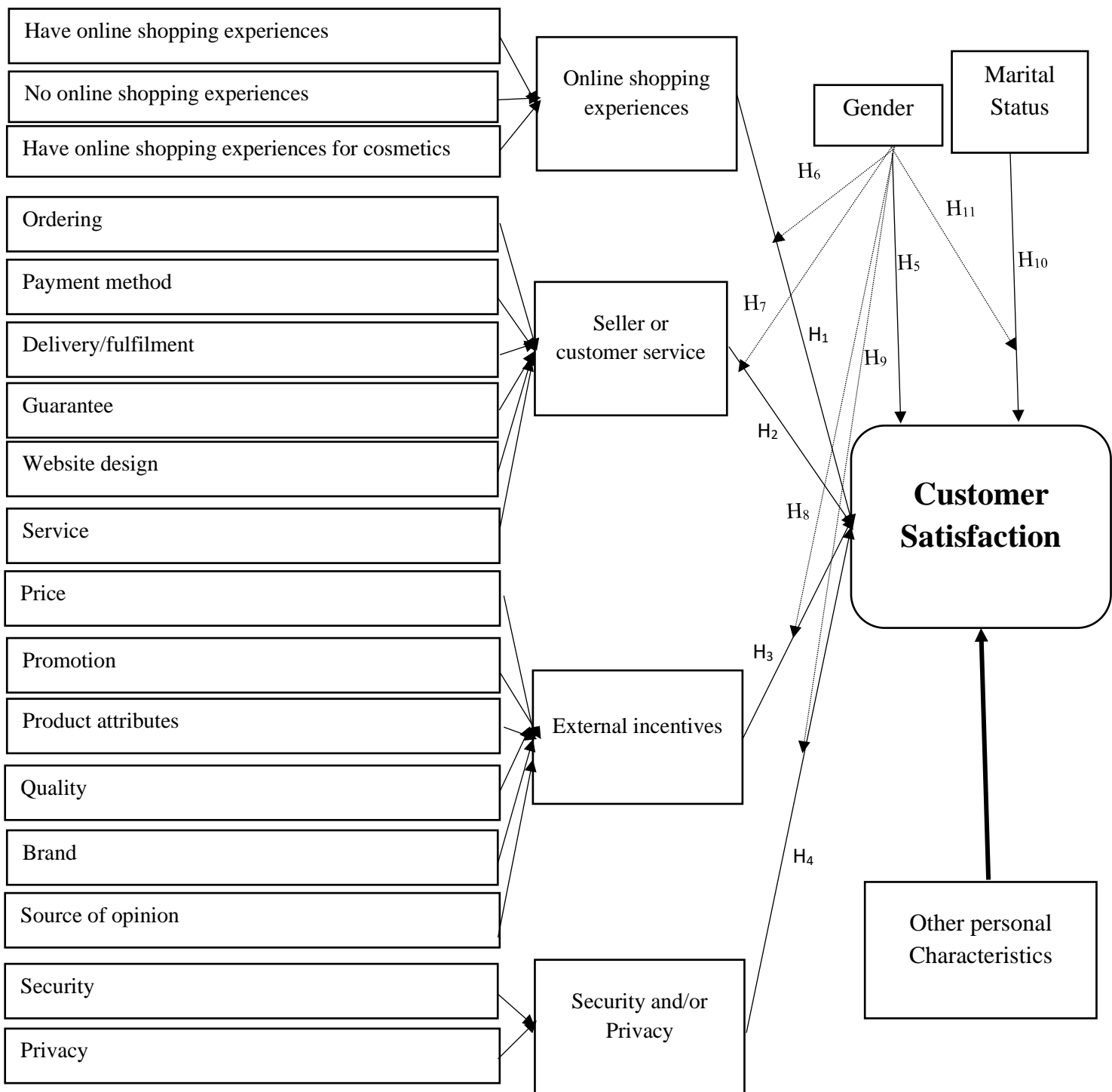
Figure 2.4: Five-construct Theoretical Model of Customer Satisfaction

Source: Own research & Rita et al. (2019)

2.3 Gender and Customer Satisfaction

Previous research studies have underscored some vital variables, especially factors related to demography – such as age/gender/social norms/routines/educational aspects/income/values of the dominant culture – that have a potential linkage with customer satisfaction (Kaufman & Rousseeuw, 2009). In general, gender-specific considerations must also be noted in determining customer behaviour and in turn, customer satisfaction (Anderson & Fornell, 2000; Kotze, Anderson, & Summerfield, 2016). However, customers share certain demographic similarities given that these may differ based on varying characters and habits of customers (Nguyen, 2020a, b; Nguyen, 2021). In particular, the characteristics that differentiate female customers from their male counterparts must be taken into consideration as they have a correlation with CS. Male and female customers also tend to have different opinions on culture, economy, social life, politics, and businesses, so it is only natural that their outlook on online shopping would also entail some differences and may be stimulated by varying factors (Karatepe, 2011; Rodgers & Harris, 2003).

This study reiterates that the trend concerning the BCOS sector has undergone significant changes over the past few decades. Previously, BCOS products used to primarily attract female customers, but have been increasingly eliciting the attention of males as well over time. This, in turn, has led to an increased acceptance of beauty/cosmetic products on the part of men. As a matter of fact, the demand for body and face care products among men is nearly as much as women. Even in emerging markets such as Vietnam, the aversion to exploring non-conventional products and services is increasing across both genders (Nguyen, 2020a, b; Nguyen, 2021). Accordingly, manufacturers of beauty and cosmetic products are taking steps to capitalise on this rising trend among men. However, my contention is that the relevance and importance of OnS are equally high for men as well as women, as shown in 2013 when the Vietnamese Ministry of Industry and Trade held a major survey. According to the findings of this study, online products were purchased by 56% of female respondents while the figure for men was 41%. In addition, it was found that a vast majority of these respondents purchased products and services through online sellers' websites, social networks, forums, and group-on websites, among others. In particular, beauty and cosmetic products garnered maximum popularity among internet shoppers across both genders.

Some studies have argued that the purposes for online shopping between males and females might be dissimilar (e.g., Fraj & Martinez, 2006). While the former (i.e., male customers) have special interests and pay attention to critical online product functions, the latter (i.e., female customers) tend to see online shopping as their interest and a social need. Furthermore, these two groups of gender reveal their difference in expectation, want, need, lifestyle, and so on, which in turn affects their difference in consumer behavior and satisfaction. One of the good illustrations for this is that females pay more attention to either personally relevant information or information relevant to others, or both. As such, they tend to get involved in a more detailed and in-depth examination of a message and ultimately base it on product attributes to make their extended decisions (Nguyen, 2020a, b; Nguyen, 2021).

On the contrary, male customers tend to focus solely on personally related information. For example, they might utilize simpler heuristics and process information based on a few details (Hoyer & MacInnis, 2010; Karatepe, 2011). This current research predicts that female online shoppers are more likely to focus their attention on the products' quality (i.e., detailed consideration and evaluation of every single aspect of the purchased products) than their male counterparts (i.e., focused on overall products). This leads to the systematic difference in purchasing satisfaction between men and women. In other words, gender plays a vital role in consumer behavior and CS (Nguyen, 2020a, b; Nguyen, 2021).

Moreover, shoppers who are females and with compulsive purchasing are more likely to be affected by negative emotions due to their perceived stress which plays a vital role in online compulsive buying among women (Hetzel-Riggin & Pritchard, 2011). They also suffer from greater stress levels and are more prone to use negative coping strategies (Anshel, Kang, & Miesner, 2010). An example of this is that female customers in stressful periods tend to safeguard their residual resources rather than consume the products. As such, the behavior of these people could be more stress-avoiding or situation-denying. Furthermore, growing research has been placed on the adverse effect of self-esteem on individuals' negative coping strategies and online compulsive buying (e.g., Dittmar, 2005; Roberts et al., 2014).

Taken together, I anticipate those female customers have greater expectations of the beauty and cosmetics products purchased via online channels than male customers, who have much lower perceptions of the detailed characteristics of those products. This, in turn, influences the level of

CS. More specifically, while male users are more likely to perceive the quality of customer services as well as extraneous incentives in an improved manner when compared to their female counterparts, they are also expected to place a greater amount of emphasis on security. This is attributed to the fact that men tend to be more particular about information protection and other technological aspects of the company they engage with in order to make a purchase. In terms of prior experiences on the internet, men are also likely to develop a more positive experience in comparison to women because they tend not to focus excessively on the finer details of products. Put differently, online purchasing options could satisfy men more easily due to the element of convenience associated with OnS, particularly for several men in Vietnam or Asia who are uncomfortable buying beauty and cosmetic products in physical stores due to society's perception that such products are reserved for women. OnS allows them to surmount this impediment. In line with my five-construct theoretical framework mentioned in another study, I have added the ramifications of gender on how these constructs impact the variables of customer satisfaction (Figure 4). Econometrics entails the measurement of gender as a dummy factor that considers one as a value in case a female respondent is an observed respondent; otherwise, this value is taken as zero. Thus, the present study's hypothesis is as follows:

H5: Satisfaction levels of male customers tend to exceed that of female customers

H6: A positive correlation exists between the experience of OnS and CS, although this holds truer for male customers as compared to female customers

H7: A positive correlation exists between customer and seller service and CS, although this holds truer for male customers as compared to female customers

H8: A positive correlation exists between extraneous incentives and CS, although this holds truer for male customers as compared to female customers.

H9: A positive correlation exists between privacy/security and CS, although this holds truer for female customers as compared to male customers.

2.4 Marital Status and Customer Satisfaction

While prior studies have examined how marital status impacts customer satisfaction (Dittmar, Long, & Meek, 2004), to my knowledge, no study has

looked specifically examined this factor in the context of Vietnam's BCOS sector. As pointed out in many studies (for example, in Kim, Vogt, & Knutson, 2015), shopping patterns have been significantly influenced by the proliferation of the internet and digital technologies in the recent past. As a result of these changes, customers now have the option and the ability to shop from the comfort of their homes by merely using their phones or any other devices connected with the internet. This paved the way for the launch of many shopping-based apps which went on to attain widespread success and the BCOS sector was no exception. (Nguyen, 2020a, b; Nguyen, 2021).

Prior studies, such as the ones conducted by Naser et al. (1999) and Saini (2013) observed that there was a major impact of demographic attributes in influencing the perspectives of customers, thus affecting their online shopping behaviours, and in turn, their buying decisions. In this context, age and gender were observed to be important demographic sub-groups. Other important elements could be associated with CS, marital status in particular, as it determines the classification of customers as single married, or separated legally (divorced).

Having said that, not many studies have examined the aforementioned variable, although some exceptions can be found. As a case in point, in their study, Oyewole, Sankaran, and Choudhury (2008) explored the socio-demographic attributes of customers within the airline industry of the United Arab Emirates (UAE) in particular. Meanwhile, in another study, Dewan and Mahajan (2014) examined the element of CS as well as how gender and marital status across banks in the public sector. Similarly, Jham (2018) looked into the relationship between the quality of service, CS, word-of-mouth, and demographic attributes in the UAE's retail banking sector.

According to the findings of Oyewole, Sankaran, and Choudhury (2008), customer satisfaction is not impacted by either age or household income. On the other hand, gender and marital status along with education and occupation were found to have a significant impact on CS in the airline industry of the UAE. Meanwhile, the study carried out by Dewan and Mahajan (2014) showed that customer satisfaction tends to vary among people on the basis of their demographic details, such as age/gender/marital status/occupancy/ bank visits frequency. To illustrate, the researchers found that it was easier to delight male customers as compared with their female counterparts. Additionally, it was found that unmarried customers were harder to satisfy compared to married customers. As per the findings of Jham's (2018) mixed method study that

focused on the role played by demographic factors in affecting CS in the UAE's retail banking, the satisfaction of customers was predicated on word-of-mouth regarding their experiences with the banking services. Nevertheless, throughout the process, no major role was found in the demographic details of customers.

In wake of the ambiguous results concerning the impact marital status has on CS across many countries and industries, this study is aimed at examining its actual effect on customer satisfaction, before taking into consideration gender's moderating effects on these relationships. To the best of my knowledge, this is the first study that looks into the research questions against the backdrop of online shopping in the BCOS sector, especially in emerging markets such as Vietnam, which has been witnessing a strong demand for such products. For this reason, a significant difference is likely to be seen in CS levels among married, single, and divorced individuals who shop online (Rodgers & Harris, 2003; Sanchez-Franco, 2006). In addition, the role of gender in the entire process is also significant, which is congruent with the findings of previous studies that looked into how gender affects the intention of customers to make online purchases (Van Slyke et al., 2002). Moreover, it is congruent with the findings of internet shopping concerning the association between differences in gender along with a range of other factors, such as website design/usability (Cyr et al., 2005), the perceived hazard associated with internet purchases (Garbarino & Strahilevitze, 2004), acceptance of technology (Gillenson & Sherrell, 2002; Porter & Donthu, 2006), as well as many other consequences Van Slyke et al., 2002; Chang et al., 2005; Cyr et al., 2005; Sanchez-Franco, 2006). Accordingly, the following hypotheses are stated:

H10:   The customer satisfaction levels among single, married, and separated online shoppers are different

H11:   The association between marital status and customer satisfaction levels among male and female internet shoppers is different

3. RESEARCH METHODOLOGY

3.1 Research objectives

This study aims to identify the salient factors that can potentially impact customer satisfaction levels in Vietnam's online beauty and cosmetic industry. In this context, the study has outlined the following research questions (RQ) shown in Table 3.1. The first one is as follows: Which factors affect the purchasing satisfaction of consumers when buying beauty and cosmetics products online?

Table 3.1 Outlining the research questions and objectives (RO)

RQ1	What are the key factors affecting customer satisfaction for purchasing online Beauty and Cosmetic products in Vietnam?
Objective 1	▪ *To identify key factors affecting customer satisfaction for purchasing online beauty and cosmetics products in Vietnam.*
RQ2	Are there any differences between female and male customers?
Objective 2	▪ *To identify differences between male and female customers regarding their satisfaction with purchasing online beauty and cosmetics products in Vietnam and its determinants.*
RQ3	Does marital status affect the satisfaction of online shoppers in the Beauty and Cosmetic sector in Vietnam?
Objective 3	▪ *To identify the impact of marital status on the levels of satisfaction of online shoppers in the beauty and cosmetics industry in Vietnam.*

Source: Author estimation

3.2 Methods

3.2.1 Selected processing methods

The present study entails the utilisation of quantitative methods, something that can be applied to all research questions. According to prior literature, the quantitative approach helps elucidate the phenomena by collecting numeric data and then using it mathematically for analysing data. It is applied to describe variables, examine the linkage between variables and examine which factors could significantly impact CS to online shopping, before establishing an equation to provide clarity into that effect (Nguyen, 2020a, b; Nguyen, 2021).

This study was conducted using online survey questionnaires to examine the causes of customer satisfaction and gender roles.

To improve the content validity, reliability and response rate, the questionnaire was designed based on the study by Churchill and Iacobucci. In their study, they suggested questionnaire structure and layout with survey management, pre-notification and post-survey follow-up reminders. We also compared early and late respondents on some key characteristics to test for non-response bias. I wouldn't expect a significant difference between the two groups.

A random-sample method was applied for this study. Therefore, the target sample was randomly selected. Six variable groups were involved in this study, out of which 5 were independent variable groups with 1 group of dependent variables. As a standard rule, the sample size should be 100 or more and the minimum sample must result in ratio of 5 observations per variable, as suggested by Hair, Black, Babin and Anderson.

n > 100 samples and n=5k (where k= variable count).

Hence, the optimum sample size is n = 5*33 = 165.

For standard multiple regression analysis, Tabachnick and Fidell (1991) proposed that the desired level is: n > 165 + 8m (where m= total count of independent variables)

Therefore, the desired sample is: n > 160 + 8*5 = 200.

Hence, minimum sample size should be 201.

To achieve the result, at least 201 survey participants were needed to participate in this survey. In addition, the survey was distributed to those people who are Vietnamese and shopping online.

3.2.2 Data Analysis Procedure

STATA 16 analysis used for data collection to fulfill the objectives of this present study and test the hypotheses.

3.2.2.1 Descriptive statistics

In this study, demonstrative model variables were analysed with the descriptive statistical analysis method, which analysed their characteristics. The respondents' profiles were described with the above descriptive method in terms of frequency and distribution. Then the variable (independent and dependent) means and standard deviation presented.

3.2.2.2 Factor analysis and Scale reliability

Purification methods, including factor analysis and Cronbach's alpha analysis are utilised in this study to verify the dimensionality and reliability of the constructs. Factor analysis examined underlying patterns in the data. To allow maximum flexibility in this exploratory study, it was decided to test each subdimension separately as a stand-alone component. Cronbach's alpha coefficient was used to measure the internal consistency of each identified dimension.

The statistical EFA technique used for the description of variability between observed variables (items) and correlated variables (items) to reduce the unobserved variable numbers, called as factors or components. EFA locates independent unobserved variables (also called latent variables). The Principal Component Analysis (PCA) used as extraction method.

A varimax rotation, which is an orthogonal rotation, was applied. The number of latent variables in each subsample were defined using the eigenvalue criterion ($\lambda > 1$). During the iterative process, items with a common value of less than 0.3 and cross-loading greater than an absolute value of 0.4 were removed. In addition, attention was focused on the lack of multicollinearity, non-zero correlation between items, and adequate sampling, controlled by correlation matrix determinant of greater than 0.00001, KMO statistic and Bartlett's test, respectively. The component reliability of the items loaded into the factor estimated by Cronbach's alpha (CA). The rules for

finding the optimal solution as given by Tabachnick and Fidell (2013) and Field (2009). STATA 16 was used for the analysis.

3.2.3 Hypotheses testing and empirical models

In this study, demonstrative models were tested by multiple regression using ordinary least squares. (OLS). This is one of the most common methods used in studies to test factors or determinants. This approach requires comprehensive and accurate measurements of one dependent variable and two or more independent variables (see Models 1-4). Distinguishing tests for heteroscedasticity and multicollinearity performed to verify data problems. Furthermore, we implemented robustness checks and sensitivity tests to verify that the results are robust across different model specifications and variable measurements. Demonstrative models 1 to 4 were constructed based on a research framework based on previous research in the fields of beauty/cosmetics online shopping.

RQ1: What are the key factors affecting customer satisfaction for purchasing online beauty and cosmetics products in Vietnam?

Full sample: $CS_i = \beta_0 + \beta_1 PC_i + \beta_2 OSE_i + \beta_3 SS_i + \beta_4 EI_i + \beta_5 SP_i + \varepsilon_{it}$ (1)

RQ2: What are the differences between female and male customers?

Female sample only: $CS_i = \beta_0 + \beta_1 PC_i + \beta_2 OSE_i + \beta_3 SS_i + \beta_4 EI_i + \beta_5 SP_i + \varepsilon_{it}$ (2a)

Male sample only: $CS_i = \beta_0 + \beta_1 PC_i + \beta_2 OSE_i + \beta_3 SS_i + \beta_4 EI_i + \beta_5 SP_i + \varepsilon_{it}$ (2b)

And t-test statistics can be conducted to find the differences between male and female customers; and for RQ3, ANOVA can be used to test the difference between single, married, and divorced/separated customers.

3.3 Data Collection Procedure

The five-step development and validation of the questionnaire on CS was explained in this section. Various reviews were conducted to design the first elements of the questionnaire. A two-round, iterative Delphi consultation process (qualitative and quantitative) was then conducted with a panel of

experts. This is commonly used to create and validate surveys. A pilot study was conducted using a sample of 100 participants. Finally, cross-validation was performed by a primary validation study of 334 participants.

3.3.1 Step one: initial development of the questionnaire

Considering the predecessor of Delphi research, the field of interest, format and some elements were described and the questionnaire was developed after reviewing the relevant literature. As mentioned in section 2, this study identified one outcome component, i.e., CS, and five major implementation components, i.e., OSE, EI, SS, SP and individual characteristics.

The research initially conducted a review of existing literature related to (1) Consumer satisfaction and its determinants, (2) online shopping in different countries including Vietnam, (3) gender differences (if any). This phase helped finding gaps in the literature and identify key factors that may influence consumer behaviour. We performed this procedure using various databases from authoritative sources, including Google Scholar, Scopus and Web of Science database. In addition, it was searched by many keywords such as "customer satisfaction", "determinants of customer satisfaction", "online shopping", "beauty and cosmetics industry", "factors affecting customer satisfaction", "Vietnam". We also combined these keywords to pick up better search results. For example, a Google Scholar search for just the keyword "customer satisfaction" returned 2,420,000 results and this was too much. Hence, when we searched for "customer satisfaction" and "online shopping", it dropped significantly to 271,000 search results. These two keywords were then combined with others to reduce the number of results while maintaining the relative quality of the literature (relevance, credibility, etc.). We did not perform a systematic literature review, so we limit the literature to studies that are closely related to our research question, e.g., "Research on the factors affecting customer satisfaction, especially in Vietnam and the beauty and cosmetics sector". A comprehensive analysis of previous studies allowed us to propose a conceptual model (Figure 4) that combined a range of factors and variables to explore their impact on CS. These structures were chosen because they have been shown to be highly relevant to CS, especially in similar sectors and countries. We chose these constructs because of their theoretical and logical support in the context of online shopping and Vietnam.

Detailed concepts and elements of each variable group are shown in Table 3.2 below:

Table 3.2 The Concept of Variables Constructs

Variables	Construct	Source
Outcome construct		
Consumer Satisfaction (CS)	Describe the satisfaction of consumers in buying online products	Bryant (1995); Hokanson (1995) Anderson et al. (2000); Liu et al. (2013); Rita et al. (2019), and so on.
Implementation construct		
Online Shopping Experience (OSE)	Describe consumers' prior experience in buying online products	Bryant (1995); Hokanson (1995) Anderson et al. (2000); Liu et al. (2013), Rita et al. (2019), and so on.
External Incentives (EI)	Describe incentives from the online businesses for consumers	
Customer Service (CS)	Describe the quality of online business services	
Security/Privacy (SP)	Describe the security and privacy of consumers when buying online products	
Personal Characteristics (PC)	Describe the demographics of the consumers and their frequency of internet use	

Source: Author estimation

3.3.2 Step two: qualitative Delphi study

Individuals participating in Delphi research must be recognized as having attained a reasonable level of appropriate expertise in the field being researched. Hence, we compiled a list of eight lecturers who teach management- and marketing-related modules at two universities in South Vietnam. At the time of this step, these eight of instructors were teaching several modules such as Market Research, Retail Management, Digital Marketing, Consumer Behavior, and Marketing Strategy. In addition, they are

active in research in these two fields and have experience in publishing academic papers and presenting their research findings at national and international academic conferences.

Therefore, constructive feedback on this questionnaire will help correct misunderstandings at this stage. This phase was intended to avoid confusion in survey design and helped identify sensitive or inappropriate information. In other words, it served well to thoroughly assess the accuracy of the questionnaire and the representativeness of the relevant components. These experts highlighted confusing words and phrases in the questionnaire items, rephrased statements to make them understandable, and made other constructive comments on the statements. After feedback from these eight instructors, no discrepancies were found regarding the relevance and sensitivity of the questionnaire questions. The revisions they proposed focused primarily on word choice. This is because the survey targets are Vietnamese people who are interested in or have experience in online shopping for beauty and cosmetics. Therefore, the word choice for each item should be one that easily expresses the meaning and intent of the question. If the survey is answered at a later time, all respondents should make the same interpretation.

3.3.3   Step three: Quantitative Delphi study

Based on revised questionnaire items from a Delphi qualitative study, another group of 15 experienced Vietnamese lecturers and PhD students further investigated the relationship between the revised items and the CS questionnaire. These 15 participants have taught and researched in the fields of management and economics at various universities in the UK. The Vietnamese lecturer has taught several modules at both undergraduate and postgraduate levels and most importantly, has accumulated extensive research experience in these two fields. For PhD students in Vietnam, their research expertise was also relevant for the purpose of the questionnaire.

For each item, these 15 participants were asked to give a score between 1 and 5 (1 - very irrelevant, 2 - somewhat irrelevant, 3 - neutral, 4 - moderate related, and 5 - very relevant). These scores were used to examine content three effectiveness indices, including Lawshe's content effectiveness ratio (CVR), Aiken's his V coefficient and Penfield's interval score. CVR is defined as the extent to which an expert panel (that is, his 15 faculty members and researchers

in this study) determined the need for an article. The formula for calculating CVR is:

$$CVR = \frac{n_e - \dfrac{N}{2}}{N:2}$$

where ne is the number of experts who rated the item as important (that is, highly relevant or moderately relevant) and N is the total number of experts. As there were 15 participants (N = 15), CVR cut-off value for this study was estimated at 0.15 (p = 0.05). As shown in Table 3.3, all question items for the five components (i.e., CS, EI, OSE, SS, and SP) were above the cut-off values.

Table 3.3 Content validity through Lawshe's CVR

Item	e (indicating the relevance of the item)	CVR by item
CS1	12	0.600
CS2	10	0.333
CS3	11	0.467
CS4	12	0.600
CS5	12	0.600
CS6	12	0.600
CS7	12	0.600
CS8	12	0.600
CS9	12	0.600
EI1	13	0.733
EI2	11	0.467
EI3	10	0.333
EI4	10	0.333
EI5	9	0.200
EI6	11	0.467
EI7	11	0.467
EI8	12	0.600
EI9	12	0.600
EI10	11	0.467
OSE1	10	0.333
OSE2	10	0.333
OSE3	9	0.200
OSE4	11	0.467
OSE5	12	0.600
OSE6	12	0.600
OSE7	12	0.600

SS1	11	0.467
SS2	14	0.867
SS3	11	0.467
SS4	9	0.200
SS5	12	0.600
SS6	12	0.600
SS7	10	0.333
SS8	11	0.467
SP1	12	0.600
SP2	12	0.600
SP3	12	0.600
SP4	12	0.600
SP5	12	0.600

Source: Author estimation

A second measure of content effectiveness is content relevance. To ensure that items achieve content relevance, Aiken's Content Validity Coefficient or Aiken's V and Confidential Interval (CI) (Penfield, 2003) were considered. The formula for Aikens V is:

$$V = \frac{S}{n * (c - 1)}$$

where S represents the rating given by each expert minus the lowest rating in the rating range (usually this is 1 on a 5-point rating scale). n represents the number of experts in the survey and c represents the number of options the experts can choose from. V ranges from 0 to 1.0, with higher values indicating more valid content.

However, Aiken's V results aren't good enough. Content relevance should still be calculated in CI. According to Aikens V's results, the formulas for calculating the lower bound (L) and upper bound (U) are expressed as:

$$L = \frac{2nKV + z^2 - z\sqrt{4nKV(1 - V) + z^2}}{2(nK + z^2)}$$

$$U = \frac{2nKV + z^2 + z\sqrt{4nKV(1 - V) + z^2}}{2(nK + z^2)}$$

where n is the number of raters in the study; K is the greatest point minus the lowest point in the rating scale (typically, they are 1 and 5 denoting extremely irrelevance and high relevance, respectively); where z stands for the confidence level (z90 percent = 1.65; z95 percent = 1.96).

All of the survey items met the criteria for content validity, according to the findings of Aiken's V and CI, which are displayed in Table 3.4. More specifically, the coefficients fell within the range of 0.20, ranging from 0.593 to 0.964.

Table 3.4 Results of ratings, values of Aiken's V, and score confidence interval (CI)

Item	Rating frequency						90% CI			95% CI		
	5	4	3	2	1	V	Lower limit	Upper limit	Typical length	Lower limit	Upper limit	Typical length
CS1	10	2	3	0	0	0.867	0.779	0.924	0.145	0.759	0.931	0.172
CS2	7	3	4	1	0	0.767	0.667	0.844	0.178	0.646	0.856	0.210
CS3	8	3	4	0	0	0.812	0.716	0.881	0.165	0.696	0.891	0.195
CS4	12	0	3	0	0	0.9	0.818	0.948	0.130	0.799	0.953	0.155
CS5	11	1	3	0	0	0.883	0.797	0.935	0.138	0.778	0.942	0.164
CS6	12	0	2	1	0	0.883	0.797	0.935	0.138	0.778	0.942	0.164
CS7	9	3	3	0	0	0.85	0.759	0.911	0.152	0.739	0.919	0.180
CS8	8	4	3	0	0	0.833	0.740	0.898	0.158	0.719	0.907	0.187
CS9	9	3	3	0	0	0.85	0.759	0.911	0.152	0.739	0.919	0.180
EI1	12	1	2	0	0	0.917	0.839	0.959	0.121	0.820	0.964	0.144
EI2	10	1	3	1	0	0.833	0.740	0.898	0.158	0.719	0.907	0.187
EI3	10	0	5	0	0	0.833	0.740	0.898	0.158	0.719	0.907	0.187
EI4	7	3	5	0	0	0.783	0.684	0.857	0.174	0.663	0.869	0.205
EI5	5	4	6	0	0	0.733	0.630	0.816	0.185	0.610	0.828	0.219
EI6	9	2	4	0	0	0.833	0.740	0.898	0.158	0.719	0.907	0.187
EI7	10	1	4	0	0	0.85	0.759	0.911	0.152	0.739	0.919	0.180
EI8	11	1	3	0	0	0.883	0.797	0.935	0.138	0.778	0.942	0.164
EI9	9	3	3	0	0	0.850	0.759	0.911	0.152	0.739	0.919	0.180
EI10	11	0	4	0	0	0.867	0.779	0.924	0.145	0.759	0.931	0.172
OSE1	7	3	5	0	0	0.783	0.684	0.857	0.174	0.663	0.869	0.205
OSE2	8	2	5	0	0	0.800	0.703	0.871	0.169	0.682	0.882	0.200
OSE3	7	2	5	1	0	0.750	0.648	0.830	0.182	0.628	0.842	0.215
OSE4	10	1	4	0	0	0.850	0.759	0.911	0.152	0.739	0.919	0.180
OSE5	10	2	3	0	0	0.867	0.779	0.924	0.145	0.759	0.931	0.172
OSE6	11	1	3	0	0	0.883	0.797	0.935	0.138	0.778	0.942	0.164

OSE7	11	1	3	0	0	0.883	0.797	0.935	0.138	0.778	0.942	0.164
SS1	9	2	4	0	0	0.833	0.740	0.898	0.158	0.719	0.907	0.187
SS2	9	5	1	0	0	0.883	0.797	0.935	0.138	0.778	0.942	0.164
SS3	11	0	4	0	0	0.867	0.779	0.924	0.145	0.759	0.931	0.172
SS4	5	4	5	1	0	0.717	0.613	0.802	0.189	0.593	0.815	0.223
SS5	12	0	3	0	0	0.900	0.818	0.948	0.130	0.799	0.953	0.155
SS6	11	1	3	0	0	0.883	0.797	0.935	0.138	0.778	0.942	0.164
SS7	7	3	5	0	0	0.783	0.684	0.857	0.174	0.663	0.869	0.205
SS8	10	1	4	0	0	0.850	0.759	0.911	0.152	0.739	0.919	0.180
SP1	11	1	3	0	0	0.883	0.797	0.935	0.138	0.778	0.942	0.164
SP2	10	2	3	0	0	0.867	0.779	0.924	0.145	0.759	0.931	0.172
SP3	8	4	3	0	0	0.833	0.740	0.898	0.158	0.719	0.907	0.187
SP4	11	1	3	0	0	0.883	0.797	0.935	0.138	0.778	0.942	0.164
SP5	10	2	3	0	0	0.867	0.779	0.924	0.145	0.759	0.931	0.172

Source: Author estimation

3.3.4   Step four: Pilot study

Pilot research, with a sample size of 50 participants, was carried out using the revised survey from the Delphi experiments (7 male and 43 female). They were primarily in the 21–25 (with 12 participants) and 26–30 (with 30 participants) age brackets (18 participants). This helps us to spot patterns in participant responses and any problems with the questionnaire survey, ensuring the accuracy of the content and consistency of the measurements. The findings demonstrate that the internal consistency reliability was quite high, demonstrating that the questionnaire was suitable for the primary study.

3.3.5   Step five: Main study

Following the completion of this pilot study, I will go on to finish the questionnaire survey and subsequently distribute it to customers at random using internet channels, such as Facebook. The target audience consists of Vietnamese people who may be interested in or have previous experience with online shopping for goods like cosmetics and clothing. The study's instrument validation phase had 334 individuals in total. The sample consisted mainly of women (69.25 percent). In Table3.5, specific demographic information is displayed.

Table 3.5 Demographic information of respondents

	Male (n_male = 76)	Female (n_female = 259)	Total (N = 334)
Age range			
18 – 20	8 (10.5%)	16 (6.6%)	24 (7.5%)
21 – 25	15 (19.7%)	55 (21.2%)	70 (20.9%)
26 – 30	22 (28.9%)	62 (23.9%)	84 (25.1%)
31 – 35	19 (25.0%)	84 (32.4%)	103 (30.7%)
Over 35	12 (15.8%)	41 (15.8%)	53 (15.8%)
Marital status			
Single	30 (39.5%0	84 (32.8%)	114 (34.3%)
Married	21 (27.6%)	94 (36.3%)	115 (34.3%)
Separated	6 (7.9%)	31 (12.0%)	37 (11.0%)
Divorce	19 (25.0%)	49 (18.9%)	68 (20.2%)
Highest Qualifications			
High School Diploma	9 (11.8%)	26 (10.4%)	35 (10.7%)
Bachelor's Degree	28 (36.8%)	71 (27.4%)	99 (29.6%)
Masters' Degree	33 (43.4%)	136 (52.5%)	169 (50.3%)
Doctoral Degree	6 (7.9%)	25 (9.7%)	31 (9.3%)
Salary			
< 8 million VND	10 (13.2%)	30 (12.0%)	40 (12.2%)
8 – 15 million VND	10 (13.2%)	67 (25.9%)	77 (22.9%)
15- 25 million VND	20 (26.3%)	82 (31.7%)	102 (30.4%)
25- 35 million VND	13 (17.1%)	51 (19.7%)	64 (19.0%)
> 35 million VND	23 (30.3%)	28 (10.8%)	51 (15.2%)

Source: Author estimation

I utilise Exploratory Factor Analysis (EFA) to test for 167 observations based on the 334 complete responses that have been received, making sure that all of the scales' items adequately reflect the range of each construct. To put it another way, this technique aids in locating the fundamental aspects of customer pleasure. To validate the questionnaire's constructs and questions, the study also uses confirmatory factor analysis (CFA). I have 167 responses as a sample for this.

It was advised to conduct EFA and CFA on separate samples (Kneta et al., 2019), and in this case, the EFA was carried out on half of the sample while

the CFA was conducted on the other half. This is necessary because, if not, the CFA will replicate the associations inferred from the EFA results. The results from the EFA should be checked using the CFA on the various samples.

4. VALIDATING THE FIVE-CONSTRUCT MODEL OF CUSTOMER SATISFACTION AND QUESTIONNAIRE

4.1 Exploratory Factor Analysis (EFA)

The principal component analysis (PCA) approach and the varimax rotation method were both used to run through and validate all 39 survey items on the CS questionnaire. To ascertain whether the sample size was adequate and whether the data was appropriate for factor analysis, the factorability of these items was tested using the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy test and Bartlett's test of sphericity. As a consequence, the statistical significance of Bartlett's test of sphericity ($\chi 2$ (741) = 3221.178, p = 0.000) and a reasonable value of the KMO test for sample adequacy (KMO = 0.827, beyond the 0.60 recommended limit), supported the validity of the PCA. These measurements demonstrated five extracted components with eigenvalues greater than 1 and accounting for 52.014 percent of the total variance, demonstrating that the data were suitable for the EFA approach and beneficial for explaining CS (Khan and Adil, 2013). Additionally, two items were removed from the analyses based on the decision for EFA (cut-off limit = 0.50), and additional analyses were carried out using the remaining 37 items. (Table 4.1)

Customer satisfaction (CS) was the first factor, which included nine items and accounted for 21.920 percent of the variation. The second factor, dubbed "external incentives" (EI), had 10 items and contributed 13.608 percent to the variation. Seven items were taken out and placed onto factor three, "Online Shopping Experience" (OSE), which accounted for 6.869 percent of the overall variation. Eight items making up 5.377 percent of the overall variance were included in the fourth factor, "Seller service" (SS). Security and Privacy (SP), the fifth component, included six items and explained 2.602 percent of the variation.

Internal consistency reliability was tested by using Cronbach's Alpha coefficients (α) for the five explored constructs. SS (α = 0.759) and SP (α = 0.717) were greater than 0.70, showing acceptable consistency. EI (α = 0.866) and OSE (α = 0.840) were greater than 0.80 and showed good consistency, while CS (α = 0.931) was greater than 0.90 and displayed excellent consistency

(Henson, 2001). These results revealed that the five emerging factors were all reliable for examining CS.

Table 4.1 Rotated factor loadings for the five factors (N = 167, total variance explained is 52.014%, α = 0.899, thirty-seven items).

	Items	Loading
	Factor 1: Customer satisfaction	
CS5	I will make more purchases for beauty and cosmetics online products in the future (*Tôi sẽ mua nhiều sản phẩm làm đẹp và mỹ phẩm trực tuyến trong tương lai*).	*0.830*
CS2	The online beauty and cosmetics shop always meets my needs (*Cửa hàng mỹ phẩm và làm đẹp trực tuyến luôn đáp ứng nhu cầu của tôi*).	*0.822*
CS9	Overall, I encourage friends and others to purchase goods from online beauty and cosmetics shops (*Nhìn chung, tôi khuyến khích bạn bè và những người khác mua hàng hóa từ các cửa hàng mỹ phẩm và làm đẹp trực tuyến*).	*0.811*
CS4	Overall, I say positive things about beauty and cosmetics online shops to other people (*Nhìn chung, tôi sẽ nói những điều tích cực về các cửa hàng trực tuyến làm đẹp và mỹ phẩm cho người khác*).	*0.805*
CS6	The online beauty and cosmetics shops are getting close to the ideal online retailer (*Cửa hàng mỹ phẩm và làm đẹp trực tuyến đang dần trở thành những nhà bán lẻ trực tuyến lý tưởng*).	*0.801*
CS3	Overall, if problems arise, one can expect to be treated fairly by online beauty and cosmetics shops (*Nhìn chung, nếu có vấn đề phát sinh, người ta có thể mong đợi được đối xử công bằng bởi các cửa hàng mỹ phẩm và làm đẹp trực tuyến*).	*0.797*
CS1	The overall quality of the beauty and cosmetics online products is excellent (*Chất lượng tổng thể của dịch vụ cho sản phẩm làm đẹp và mỹ phẩm trực tuyến là tuyệt vời*).	*0.758*
CS7	Overall, I recommend beauty and cosmetics shops to anyone who seeks my advice (*Nhìn chung, tôi giới*	*0.711*

	thiệu các cửa hàng làm đẹp và mỹ phẩm cho bất cứ ai tìm kiếm lời khuyên của tôi).	
CS8	Overall, online beauty and cosmetics shops are genuinely interested in customer's welfare (*Nhìn chung, các cửa hàng mỹ phẩm và làm đẹp trực tuyến thực sự quan tâm đến phúc lợi của khách hàng).*	*0.700*
	Factor 2: External Incentives	
EI6	More product specials or promotions (of beauty and cosmetics products) (*Nhiều sản phẩm đặc biệt hoặc chương trình khuyến mãi (của các sản phẩm làm đẹp và mỹ phẩm)).*	*0.702*
EI8	More products with free shipping (of beauty and cosmetics products) (*Nhiều sản phẩm được miễn phí vận chuyển (của các sản phẩm làm đẹp và mỹ phẩm)).*	*0.694*
EI9	Diversification of products (of beauty and cosmetics products) (*Đa dạng hóa sản phẩm (sản phẩm làm đẹp và mỹ phẩm)).*	*0.694*
EI7	Detailed product specifications and features (of beauty and cosmetics products) (*Thông số kỹ thuật và tính năng của sản phẩm được trình bày rất chi tiết và dễ hiểu (của sản phẩm làm đẹp và mỹ phẩm)).*	*0.676*
EI4	Wide diversification of advertising (of beauty and cosmetics products) (*Đa dạng hóa quảng cáo (của các sản phẩm làm đẹp và mỹ phẩm)).*	*0.644*
EI1	Product only available online (of beauty and cosmetics products) (*Sản phẩm chỉ có sẵn khi mua trực tuyến (của các sản phẩm làm đẹp và mỹ phẩm)).*	*0.613*
EI5	Product is purchased according to the notability of brands (of beauty and cosmetics products) (*Sản phẩm được mua theo sự danh giá của các thương hiệu (của các sản phẩm làm đẹp và mỹ phẩm)).*	*0.606*
EI2	Provide special product bundles (of beauty and cosmetics products) (*Cung cấp các gói sản phẩm đặc biệt (của các sản phẩm làm đẹp và mỹ phẩm)).*	*0.599*

EI3	Price cheaper than physical stores (of beauty and cosmetics products) (*Giá rẻ hơn so với các cửa hàng hiện hữu (của các sản phẩm làm đẹp và mỹ phẩm)*).	0.587
EI10	Product not easy to buy on the market (of beauty and cosmetics products) (*Có thể mua được sản phẩm không dễ mua trên thị trường (của các sản phẩm làm đẹp và mỹ phẩm)*).	0.528
Factor 3: Online Shopping Experience		
OSE2	I am satisfied with most recently purchased product (of any type of products) (*Tôi hài lòng với sản phẩm được mua gần đây nhất khi mua hàng trực tuyến (của bất kỳ các loại sản phẩm)*).	0.812
OSE3	I care about brand reputation of beauty and cosmetics (*Tôi quan tâm đến uy tín thương hiệu của các sản phẩm làm đẹp và mỹ phẩm khi mua hàng trực tuyến*).	0.750
OSE1	I am satisfied with mostly recently purchased beauty and cosmetics online (*Tôi hài lòng với hầu hết các sản phẩm làm đẹp và mỹ phẩm được mua trực tuyến gần đây*).	0.729
OSE4	I care about attractive packaging of online beauty and cosmetics products (*Tôi quan tâm đến sự hấp dẫn của thiết kế bao bì của các sản phẩm làm đẹp và mỹ phẩm khi mua hàng trực tuyến*).	0.715
OSE5	When shopping for beauty and cosmetics products online, I care about professionalism of service personnel (*Khi mua hàng trực tuyến, tôi ưu tiên các sản phẩm làm đẹp và mỹ phẩm nếu nhân viên tư vấn và phục vụ chuyên nghiệp*).	0.535
OSE7	I care about natural ingredients of online beauty and cosmetics products (*Tôi quan tâm đến sản phẩm làm đẹp và mỹ phẩm có nhiều thành phần tự nhiên khi mua hàng trực tuyến*).	0.517
OSE6	I was recommended to purchase beauty and cosmetics products by experts such as doctors and beauty vloggers (*Tôi được khuyên nên mua sản phẩm làm đẹp*	0.512

	và mỹ phẩm trực tuyến bởi các chuyên gia (beauty vloggers, bác sĩ chuyên khoa, ...)).	
Factor 4: Seller Services	
SS1	There is a convenient return or replacement process (of beauty and cosmetics products) (*Có sự thuận tiện trong quá trình hoàn trả hoặc thay đổi (của các sản phẩm làm đẹp và mỹ phẩm) khi mua hàng trực tuyến*).	*0.753*
SS2	There is diversification of payment methods (of beauty and cosmetics products) (*Có sự đa dạng hóa các phương thức thanh toán (của các sản phẩm làm đẹp và mỹ phẩm)*).	*0.614*
SS5	There is a fast response to questions made by customer (of beauty and cosmetics products) (*Có phản hồi nhanh chóng cho các câu hỏi của khách hàng khi mua hàng trực tuyến (về các sản phẩm làm đẹp và mỹ phẩm)*).	*0.592*
SS7	The website has no difficulties with making a payment online (of beauty and cosmetics products) (*Trang web không gặp khó khăn gì khi thanh toán trực tuyến (các sản phẩm làm đẹp và mỹ phẩm)*).	*0.569*
SS6	There is a fast delivery (of beauty and cosmetics products) (*Giao hàng nhanh chóng (các sản phẩm làm đẹp và mỹ phẩm)*).	*0.547*
SS3	There is diversification of delivery methods (of beauty and cosmetics products) (*Có sự đa dạng hóa các phương thức giao hàng (của các sản phẩm làm đẹp và mỹ phẩm)*).	*0.534*
SS4	The information on the website is pretty much what I need to carry out my tasks (of beauty and cosmetics products) (*Thông tin trên trang web là khá tốt, đáp ứng được những gì tôi cần để thực hiện các nhu cầu của mình (về các sản phẩm làm đẹp và mỹ phẩm)*).	*0.527*
SS8	The product was not damaged during the delivery (of beauty and cosmetics products) (*Sản phẩm không bị hư hỏng trong quá trình giao hàng (của các sản phẩm làm đẹp và mỹ phẩm)*).	*0.508*
Factor 5: Security and Privacy	

SP3	I trust the website administrators will not misuse my personal information (of beauty and cosmetics products) (*Tôi tin rằng các quản trị viên trang web sẽ không lạm dụng thông tin cá nhân của tôi (về các sản phẩm làm đẹp và mỹ phẩm)*).	0.755
SP1	I feel safe in my transactions with the online shop (of beauty and cosmetics products) (*Tôi cảm thấy an toàn trong các giao dịch của mình với cửa hàng trực tuyến (các sản phẩm làm đẹp và mỹ phẩm)*).	0.719
SP2	I trust the online shop to keep my personal information safe (of beauty and cosmetics products) (*Tôi tin tưởng các cửa hàng trực tuyến đã giữ thông tin cá nhân của tôi an toàn (của các sản phẩm làm đẹp và mỹ phẩm)*).	0.682

Source: Author estimation

4.2 Confirmatory Factor Analysis (CFA)

A second sample of 167 respondents was used for the CFA, which was then conducted to test the survey's construction of validity and reliability. According to Hair et al. (2013), it was reasonable to test the construct validity and reliability using the factor loading, t-values, average variance extracted (AVE), and composite reliability (CR). The perfect metric for judging the model quality of fit does not exist, according to earlier work on CFA. In light of this, I consider utilising a range of techniques, including the Minimum Discrepancy per Degree of Freedom (CMIN/DF), Goodness-of-Fit Index (GFI), Tucker Lewis Index (TLI), Comparative Fit Index (CFI), and Root Mean Square Error of Approximation (RMSEA). The GFI, however, has been advised against when choosing which indices to report (Sharma et al., 2005). This is due to the GFI's sensitivity and lack of sophistication, making it unable to be used as a standalone index (Hooper et al., 2008).

To evaluate the construct validity, I use convergent and discriminant validity. The former speaks about how much a given dimension's variables point to the same construct. The latter is the level of independence between the identified dimensions. A good model fit for a five-factor model measuring CS was validated by the CFA results.

Convergent validity

Table 4.2 and Figure 4.1 contain a summary of the acceptable and observed values for the fit indices. Goodness-of-fit was within an acceptable range, according to the overall model fit indices (2 (619) = 1015.949, p = 0.000, CMIN/DF = 1.641, IFI = 0.914, TLI = 0.907, CFI = 0.913, and RMSEA = 0.062). Additionally, Table 4.2 demonstrates that all construct reliability (CR) values exceeded the deemed acceptable level of 0.70 (Raykov, 1997) and that all average variance extracted (AVE) estimations were higher than 0.50. (Bernstein and Nunnally, 1994). These findings confirmed the convergent validity of each component.

Table 4.2 Results of convergent validity

Construct		M	SD	AVE	CR
CS		3.587	0.798	0.554	0.879
EI		3.589	0.813	0.557	0.895
OSE		3.359	1.126	0.684	0.898
SS		3.646	0.728	0.537	0.852
SP		3.340	0.985	0.555	0.661

Source: Author estimation

Note. M = Mean; SD = Standard deviation; AVE = Average variance explained; CR = Composite reliability

Discriminant validity

The focus of discriminant validity is on how low the correlation is between the many variables that the items are assessing. A correlation larger than 0.80 denotes a lack of discriminatory validity and an overlap between the components (Brown, 2014). The highest correlation, which was 0.772, met the criteria for discriminatory validity, as shown in Table 4.3.

Table 4.3 Correlations between five subscales of the questionnaire (N = 167)

Variable	1	2	3	4	5
1. CS	1.0				
2. EI	0.772***	1.0			
3. OSE	0.449**	0.417***	1.0		
4. SS	0.526***	0.544***	0.489***	1.0	
5. SP	0.728***	0.625***	0.293***	0.417***	1.0

Source: Author estimation

Note. *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$

4.3 Evaluation of the Structural Model: Hypothesis Testing

Goodness-of-fit was within the acceptable range, according to the overall model fit indices ($\chi 2$ (625) = 1255.418, p = 0.000, CMIN/DF = 2.009, IFI = 0.910, TLI = 0.902, CFI = 0.908, and RMSEA = 0.078). A positive influence of OSE on CS, SS on CS, EI on CS, and SP on CS is also suggested by the fact that the p-value of each pair of constructs is lower than 5% or 1%. (View Figure 4.2 as well as Table 4.4). Every hypothesis and body of prior research is supported by these findings. The four constructs may have contributed to 66 percent of the variance in CS, as indicated by the R-squared of 0.66.

Table 4.4 Results of Structural Equation Modelling

	Casual path	Path coefficient	p-value	Supported?
H_1	OSE → CS	0.15**	0.012	**Yes**
H_2	SS → CS	0.18***	0.004	**Yes**
H_3	EI → CS	0.57**	0.000	**Yes**
H_4	SP → CS	0.53***	0.000	**Yes**

Source: Author estimation

Note. *$p < 0.1$, **$p < 0.05$, ***$p < 0.01$

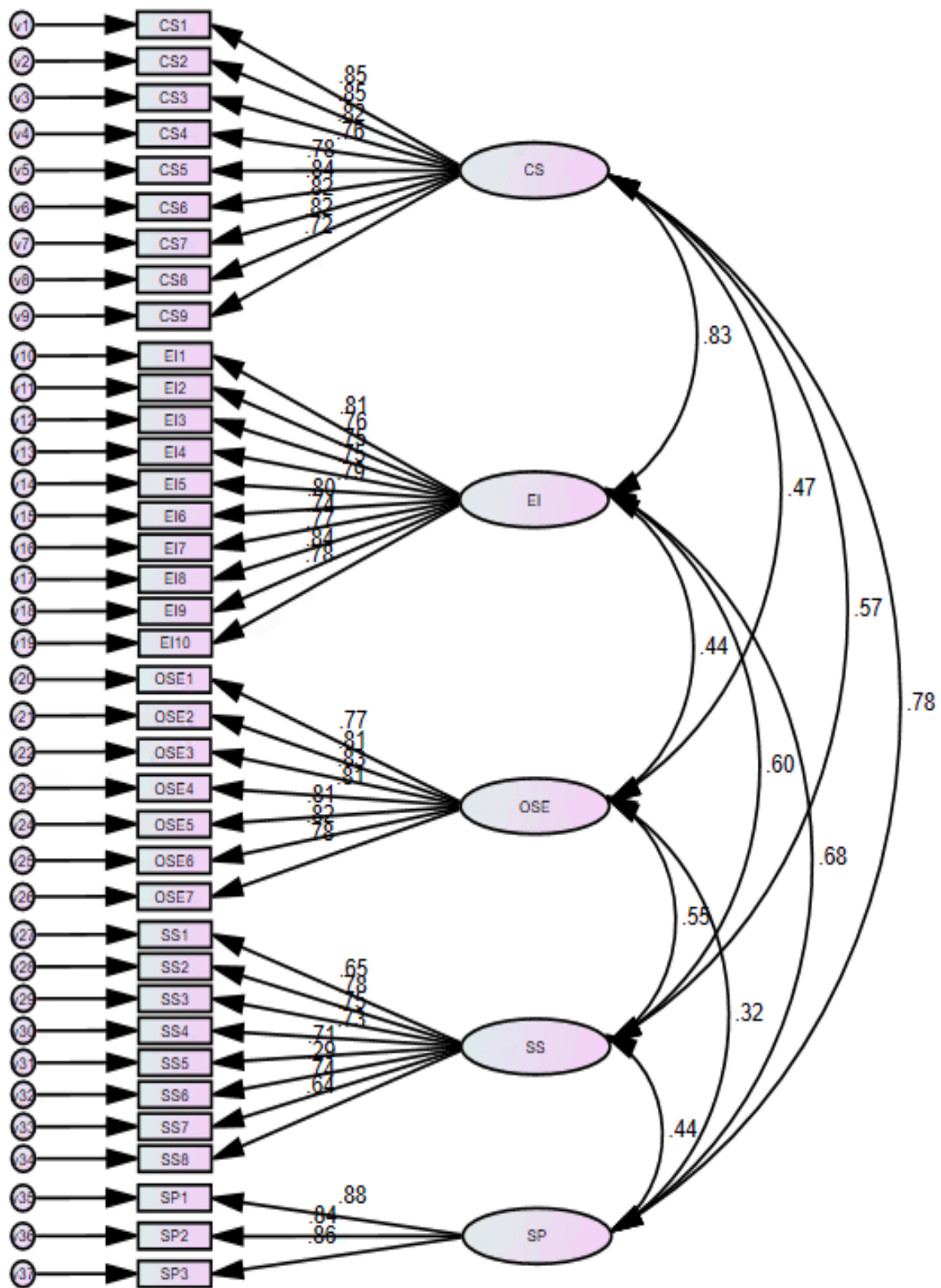*Figure 4.1. CFA Results*

Source: Own research
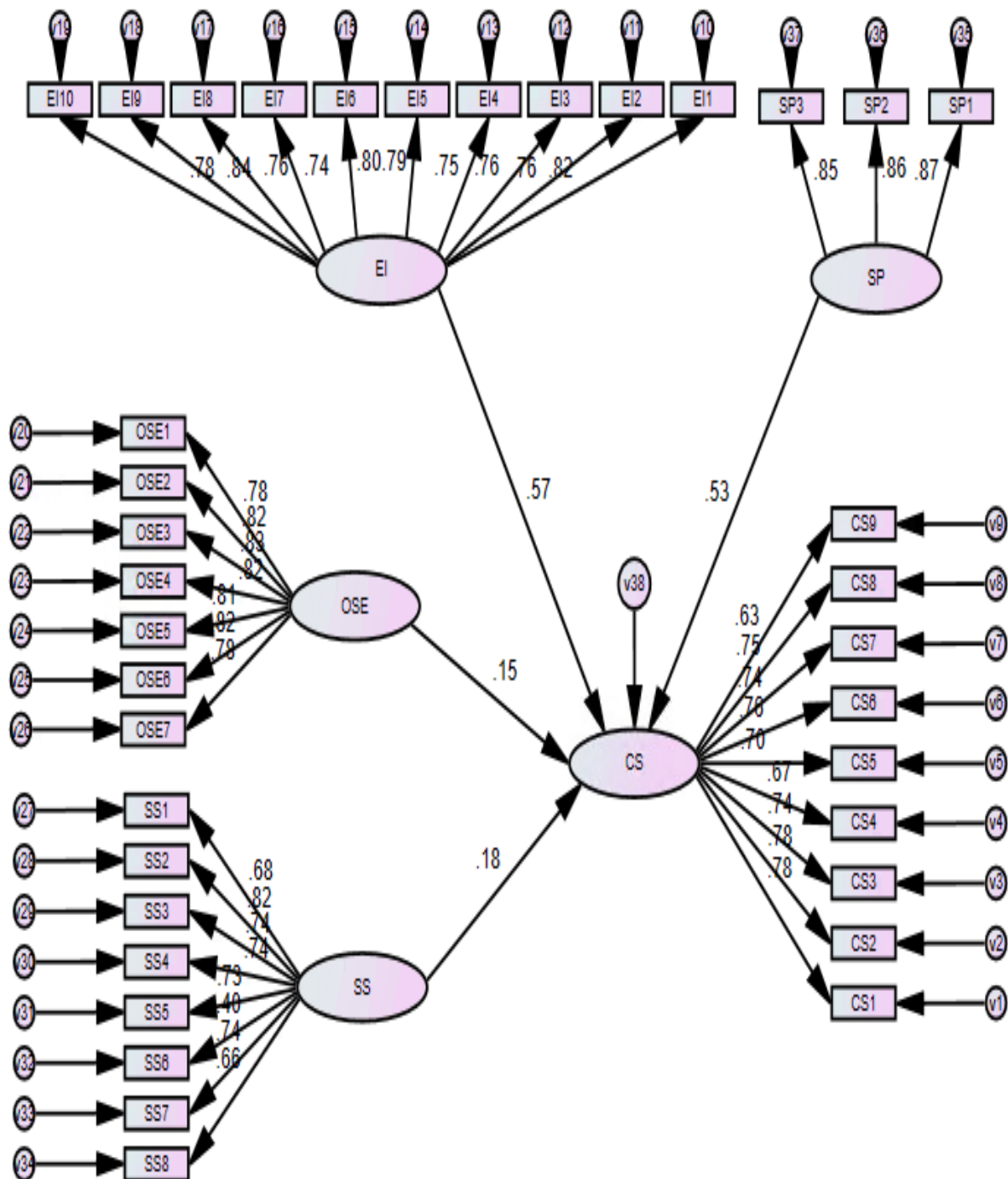
Figure 4.2. SEM Results

Source: Own research

4.4 Discussion and section summary

The questionnaire built from the five-construct theoretical model of CS with beauty and cosmetics online enterprises is validated in this study. The 334 replies that were received and the about equal employment of EFA and CFA approaches among them serve to demonstrate the validity and reliability of my survey and, consequently, the theoretical model. Comparing this study to earlier CS research on cosmetics, it becomes clear which components of customers' experiences with their online purchases of beauty products and cosmetics have a significant impact on their happiness with these services.

As mentioned in the results section, the five investigated constructs' internal consistency reliability has been demonstrated using Cronbach's Alpha coefficients (α). These findings suggest that the five criteria that emerged were all trustworthy for CS analysis. Following the EFA tests, I utilised the CFA approach to further examine the construction of validity and reliability of the questionnaire. Convergent and discriminant validity was computed in order to assess the instrument's construct validity, and the findings clearly show convergent validity for each concept and meet the criteria for discriminant validity.

Finally, I evaluate the set of hypotheses using the SEM model and discover that all of them are supported. This implies that key model elements like OSE, SS, EI, and SP have a significant impact on the CS of online companies in the beauty and cosmetics industry. This agrees with earlier research and the theoretical model. When taken as a whole, the current study makes a significant contribution to the development of a valid and reliable questionnaire that accurately captures the five constructs that make up the theoretical model online shopping experience, external incentives, customer service, security/privacy, and personal characteristics in one comprehensive measure. These findings will be used in the second study to identify the constructs that have a substantial impact on CS in the same industry and online enterprises in Vietnam.

This section of my dissertation has several significant ramifications. Future research in the same field can serve as a benchmark for my five-factor model. Second, both current online firms and new/future entrants to the industry can benefit from my results. For instance, they can use the findings to develop strategies and plans to increase customer satisfaction, which will ultimately increase their sales and profits. Third, because my study was the first to create

and validate an extensive Vietnamese questionnaire, other studies in the same market can refer to it and do not need to revalidate it. Similar to how online companies in the beauty and cosmetics industry can use my questionnaire survey as a jumping-off point for their marketing survey, after which

The disproportionate participation of men and women is one of the drawbacks. Additionally, the model is deficient in a few additional psychology-related elements. I, therefore, urge further research to incorporate psychological elements to explore how these variables may affect participants' overall happiness while buying online beauty and cosmetics products. Additionally, since this research is only being done for the Vietnamese market and the beauty and cosmetics industry, its results might not apply to other nations or other sectors. So, by testing for additional markets and industries, further research can broaden my findings.

5. GENDER DIFFERENCE IN DETERMINANTS OF CUSTOMER SATISFACTION

5.1 Hypothesis Testing

For the second research question, as discussed earlier in Section 3, empirical models will be assessed by multiple regressions using ordinary least squares (OLS). This is one of the approaches used most frequently in research that looked at determinants and factors. One dependent variable and two or more independent variables must be thoroughly and correctly measured before using this strategy (see Models 1-4). To identify data problems, diagnostic tests for heteroscedasticity and multicollinearity will be run. Additionally, sensitivity testing and robustness checks will be done to see if the findings hold up under various model assumptions and variable measurement approaches. I discovered that the models don't have heteroscedasticity or multicollinearity. On request, tables will be made available.

Table 5.1 shows detailed information on demographic factors. In a nutshell, I discovered that 65.4 percent of the sample's consumers were women, and 34.6 percent of the sample's consumers were men. The biggest proportion of men (50.3%) and women (38.7%%) are married, followed by men (30.3%) and women (35%) who are single. Additionally, 52.6 percent of women and 44.8 percent of men received a bachelor's degree. In terms of income, the largest percentages of men make between 18 and 32 million VND (26.9 percent) and 10 to 18 million VND (24.1 percent), while the highest percentages of women make between 10 and 18 million VND (32.8 percent) and 18 to 32 million VND (26.9 percent) respectively (24.5 percent). Only 1.4 percent of men and 0.7 percent of women earn more than 80 million VND each year.

Table 5.1 Demographic information of respondents

	Male (n_{male} = 145)	Female (n_{female} = 274)	Total (N = 419)
Age range			
18 – 20	10 (6.9%)	33 (12.0%)	43 (10.3%)
21 – 25	33 (22.8%)	69 (25.2%)	102 (24.3%)
26 – 30	57 (39.3%)	108 (39.4%)	165 (39.4%)
31 – 35	28 (19.3%)	44 (16.1%)	72 (17.2%)
Over 35	17 (11.7%)	20 (7.3%)	37 (8.8%)
Marital status			
Single	44 (30.3%)	96 (35.0%)	140 (33.4%)

Married	73 (50.3%)	106 (38.7%)	179 (42.7%)
Others	28 (19.3%)	72 (26.3%)	100 (23.9%)
Highest Qualifications			
High School Diploma	21 (14.5%)	53 (5.1%)	74 (17.7%)
Bachelor's Degree	65 (44.8%)	144 (52.6%)	209 (49.9%)
Masters' Degree	47 (32.4%)	53 (19.3%)	100 (23.9%)
Doctoral Degree	11 (7.6%)	10 (19.3%)	21 (5.0%)
Others	1 (0.7%)	14 (3.6%)	15 (3.6%)
Salary			
<5 million VND	12 (17.2%)	39 (14.2%)	51 (12.2%)
>=5 million VND; <10 million VND	25 (17.2%)	54 (19.7%)	79 (18.9%)
>=10 million VND; <18 million VND	35 (24.1%)	90 (32.8%)	125 (29.8%)
>=18 million VND; <32 million VND	39 (26.9%)	67 (24.5%)	106(25.3%)
>=32 million VND; <52 million VND	25 (17.2%)	21 (7.7%)	46 (11.0%)
>=52 million VND; <80 million VND	7 (4.8%)	1 (0.4%)	8 (1.9%)
>=80 million VND	2 (1.4%)	2 (0.7%)	4 (1.0%)

Source: Author estimation

5.2 Descriptive Statistics

Table 5.2 provides descriptive statistics for the CS constructs individually as well as for the CS construct as a whole. First, the investigation discovers that the mean and median of CS are, respectively, 3.4443 and 3.5714. This demonstrates that the customer satisfaction rating is greater than the industry average of 3. The OSE, SS, EI, and SP mean values for anticipated CS determinants are 3.6065 (3.75), 3.6216 (3.6667), 3.5631 (3.6667), and 3.6683 (3.6667), respectively. All of those variables were created using 5-Likert scale questions; therefore, the range of the minimum and maximum values is 1 to 5. A higher score indicates that the statements are favourably rising in agreement. The remaining variables, which include CS1 through CS5, OSE1 through OSE7, SS1 through SS8, EI1 through EI10, and SP1 through SP3, present specific parts of CS, OSE, SS, EI, and SP, respectively. They demonstrate that the median and mean values fall between the ranges of 3.5 and 4. All of the observed variables have a very normal distribution, according to the findings

of skewness and kurtosis. The p1 and p99 numbers confirm the fact that I do not find any outliers because of the nature of these types of variables.

Table 5.2 Descriptive Statistics

Variables	N	Mean	p50	Std.	Min	Max	Skewness		Kurtosis
CS	419	3.4443	3.5714	0.5822	1	5	-0.8898		5.3174
OSE	419	3.6065	3.7500	0.6123	1	5	-0.9968		4.9773
SS	419	3.6216	3.6667	0.5750	1	5	-1.1528		5.8864
EI	419	3.5632	3.6667	0.7162	1	5	-0.9798		4.3039
SP	419	3.6683	3.6667	0.5372	1	5	-0.7903		6.0003

Source: Author estimation

5.3 T-test Statistics Results

Table 5.3 reports pair-sample t-test results for two subsamples including female and male customers. According to the study, there is a statistically significant mean difference in customer satisfaction (-0.1604) between the two categories of clients, with male clients reporting greater levels of satisfaction (3.7732) than female clients (3.6127). This is supported by the t-value (>2) and p-value (<0.001).

Table 5.3 Pair-sample t-test results

	Female	Male	Diff	t-value (p-value)
CS	3.6127	3.7732	-0.1604	*-2.9349*** (0.0018)
OSE	3.4098	3.5094	-0.0996	*-1.7464*** (0.0408)
SS	3.5675	3.6802	-0.1127	*-1.8940*** (0.0295)
EI	3.5953	3.6713	-0.0760	*-1.3332** (0.0917)
SP	3.5633	3.5632	0.0000	0.0005 (0.4998)

Note: ***, ** and * indicates significant at 1%, 5% and 10% level of significance based on t-statistics.

5.4 Multiple Regression Results

Multiple regressions are run using the OLS approach with robust standard errors to assess the following five hypotheses (H5 to H9) on the effects of each construct (OSE, SS, EI, and SP) on customer satisfaction and the impact of gender on such relationships. In addition to testing for the entire sample (Table 5.4, Panel A), I also tested for the female sub-sample (Table 5.4, Panel B) and the male sub-sample to see if there are any variations between males and females regarding determinants of CS (Table 5.4, Panel C). In Panel A, I discover that, on average, OSE, SS, and EI are strongly and favourably related to consumer satisfaction (CS). These support my theories.

The results of the CS determinants between the male and female groups of customers are compared in Table 5.4, Panels B and C. First, I discover that there is a correlation between seller/customer service experience and CS for the entire sample, however, this is more likely for men than it is for women. This is supported by H7, as shown by the non-significant coefficient on SS in Panel B (Females) but the considerably positive coefficient on SS in Panel C. (Males). I also discovered a positive relationship between security/privacy and customer satisfaction in female sub-samples but not in male sub-samples, so I can draw the conclusion that there is a positive relationship between security/privacy and customer satisfaction; however, this is less likely for males than their female counterparts.

Table 5.4 OLS regression results

Dependent: CS	Panel A: Full sample		Panel B: Female Sub-sample		Panel C: Male Sub-Sample	
	Coefficient	t-value (p-value)	Coefficient	t-value (p-value)	Coefficient	t-value (p-value)
OSE (β_2)	0.1820***	3.45 (0.001)	0.1191**	2.12 (0.035)	0.1792*	1.67 (0.097)
SS (β_3)	0.1438**	2.55 (0.011)	0.0929	1.53 (0.128)	0.2194*	1.88 0.062)
EI (β_4)	0.2636***	4.48 (0.000)	0.3242***	4.59 (0.000)	0.1969*	1.95 (0.053)
SP (β_5)	0.0339	0.85 (0.395)	0.1374***	2.80 (0.006)	-0.0773	-1.38 (0.171)

Constant (β_0)	*1.4471****	5.31 (0.000)	*1.2198****	4.23 (0.000)	*1.8896****	3.24 (0.001)
Observations	419		274		145	
R-square	0.3139		0.3914		0.2399	
Wald Chi 2	19.30*** (0.000)		18.67*** (0.000)		6.48*** (0.000)	

Source: Author estimation

Note: ***, ** and * indicates significant at 1%, 5% and 10% level of significance based on t-statistics.

5.5 Robustness check: Control for demographic factors and personal characteristics (PC)

In Table 5.5, I include empirical models, some variables about the personal characteristics of online shoppers, or demographic factors, such as gender (for the whole sample only - Panel A), age, marital status, education, and income (For all samples - Panel A-C). I found similar outcomes to those in Table 5.4 for the entire sample (Panel A). The study concludes that OSE, SS, and EI have a favourable impact on CS as a whole. It also discovers a strong and favourable correlation between CS and GENDER. Consequently, it follows that men are more likely than women to have higher levels of CS. This again supports my first hypothesis. In addition, I discovered that online buyers with higher incomes typically show to be less happy with their purchases. This could be because people with more money find it harder to select their preferred goods, and as a result, they are less likely to be happy with the goods and services they obtain. I discovered consistent results with the primary findings for Panels B and C.

Table 5.5 Controlling demographic factors or personal characteristics (PC)

Dependent: CS	Panel A: Full sample		Panel B: Female Sub-sample		Panel C: Male Sub-Sample	
	Coefficient	*t-value (p-value)*	*Coefficient*	*t-value (p-value)*	*Coefficient*	*t-value (p-value)*
OSE (β_2)	*0.1820****	3.49 (0.001)	*0.1226***	2.17 (0.031)	*0.1888**	1.680 (0.075)
SS (β_3)	*0.1416***	2.57 (0.011)	*0.1036*	1.76 (0.101)	*0.1982**	1.70 (0.092)

EI (β_4)	0.2634***	4.48 (0.000)	0.3230***	4.43 (0.000)	0.1944*	1.93 (0.056)
SP (β_5)	0.0257	0.63 (0.527)	0.1291***	2.59 (0.010)	-0.0857	-1.36 (0.176)
GENDER (β_1)	0.1139**	2.23 (0.026)	-	-	-	-
AGE (β_1)	0.0292	1.00 (0.318)	0.0504	1.54 (0.124)	-0.0324	-0.59 (0.558)
MARITAL (β_1)	0.0191	0.48 (0.629)	0.0211	0.47 (0.639)	0.0087	0.12 (0.908)
EDUCATION (β_1)	0.0444	1.46 (0.144)	0.0449	1.27 (0.204)	0.0971	1.53 (0.129)
INCOME (β_1)	-0.0572**	-2.39 (0.017)	-0.0701***	-2.83 (0.005)	-0.0401	-0.76 (0.449)
Constant (β_0)	1.3570***	4.70 (0.000)	1.0953***	3.54 (0.000)	1.8729***	2.91 (0.004)
Observations	419		274		145	
R-square	0.3392		0.4097		0.2533	
Wald Chi 2	11.66*** (0.000)		14.50*** (0.000)		3.89*** (0.000)	

Source: Author estimation

Note: ***, ** and * indicates significant at 1%, 5% and 10% level of significance based on t-statistics.

5.6 Discussion

The t-test results support my initial hypothesis, H5, which states that male clients are generally more satisfied than their female counterparts. In addition to being physically and biologically distinct, these two genders differ in terms of traits, attitudes, and activities that affect consumer behaviour. Males and females may see the world and processes differently, and as a result, they may express their opinions and levels of satisfaction in various ways. My results are consistent with those of Karatepe (2011), Hoyer and MacInnis (2010), and especially Voss and Cova (2006), who demonstrate that female customer are more satisfied than male customers when they perceive a pleasurable degree of value expressive qualities. The study also discovered that the mean of male customers is higher than that of female counterparts in terms of Online Shopping Experience (OSE), Seller Services (SS), and External Incentives (EI). The study concludes that men are generally more satisfied with their

shopping experiences, services, and external incentives offered by online sellers, including ordering, payment method, delivery/fulfilment, guarantee policies, website design, price, promotion, product attributes, brand, and so on. This finding is supported by significant t-test results. These findings support my claim that female consumers have higher expectations for the cosmetics and beauty products they buy online than male consumers, who have far lower perceptions of the specific features of such products. Males simply appear to be more content because they have fewer expectations and pay less attention to them. However, I did not discover any appreciable differences in the mean values between these two categories of clients in terms of Security and Privacy (SP). This makes some sense given that men frequently pay more attention to security and privacy issues and are drawn to technology issues.

The research discovered favourable correlations between OSE, SS, and EI and customer satisfaction when looking at the findings of multiple regressions (CS). I clarified that the customer's online buying experience with the vendor has an impact on CS since if they have a positive experience, their general satisfaction might go up. Similar to offline businesses, online ones must provide outstanding SS that fosters client loyalty. If internet buyers are given superior SS, they are more likely to have positive behavioural intentions (Brady & Robertson, 2001). For instance, SS can involve the design of the website where buyers can discover about the products and where they can make payments. Given that a successful online business depends in large part on its ability to provide electronic services (Sharma & Lijuan, 2015). Additionally, internet buyers frequently benefit from cheaper expenditures for product browsing, navigating traffic, and expending time and energy on pricing comparisons. Because of this, they find that buying online is more convenient, allowing them to compare costs and get more precise product information from various online merchants.

Online purchases also happen more quickly than offline purchases do (Park & Lennon, 2009; Shin & Biocca, 2017; Yayl & Bayram, 2012). Promotional policies regarding price and other factors may also have a big impact on CS and their purchase choices. It does give them some EI when they purchase items online. In the same vein, Wang, Liao, Zhan, and Shi (2011) hypothesised that buyers may favour a shop that offers them a more enticing marketing programme when choosing between two competitors when purchasing an online product. This shows that advertising and price reductions are essential for improving consumers' perceptions of emotional value and, consequently,

CS. Additionally, the exceptional qualities and distinctive features of online beauty and cosmetics items

However, I further discovered that males are more likely to benefit from SS's favourable impact on CS, whilst females are more positively impacted by SP's influence on satisfaction. I contend that men have a more positive attitude regarding online buying because they are more aware of the risks involved, more accustomed to website design, and more accepting of the technology. Additionally, there are differences between males and females in terms of anticipation, want, need, lifestyle, etc., which are mirrored in their consumption behaviour (Fraj & Martinez, 2006). For instance, female customers are more likely to pay attention to information that is either personally relevant, information that is relevant to others, or both. They also frequently take part in an extensive analysis of messages and produce. In contrast, male peers typically only care about material that is personally relevant to them. They make use of more basic heuristics and only consider a few specifics when processing information (Hoyer & MacInnis, 2010; Karatepe, 2011). Because they may carefully consider and evaluate every aspect of the products they purchase, as opposed to their male counterparts, who may focus on general aspects, the study predicts that female customers are more likely to emphasize the quality of the products than their male counterparts. These discrepancies provide a consistent discrepancy in men's and women's purchase satisfaction concerning CS factors. For SP, it is simpler to satisfy female clients than it is to satisfy their male counterparts because the former may not be as tech-savvy. Unfortunately, there are some discrepancies between OSE and OSE levels in males and girls.

5.7 Section summary

In this section of my dissertation, I look at factors that influence customer satisfaction when buying online cosmetics in the Vietnamese market, and I also look at whether gender has any bearing on this. I used a sample of 419 Vietnamese customers, encompassing both males and females, and a theoretical model I developed using five constructs. These constructs include customer service, security/privacy, external incentives, and personal traits. They also include the online shopping experience. According to the results of the t-test, I discovered that male clients are typically much more satisfied with their purchases than their female counterparts. Multiple regression analysis

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findings support this. Additionally, I discovered that male clients are more satisfied with their online purchasing experiences, services, and extra benefits like ordering and payment options. The mean values between these two categories of customers regarding Security and Privacy, however, do not appear to significantly differ (SP). This may be because male clients tend to pay more attention to SP since they are drawn to technical difficulties and are aware of its risks. Based on my analysis of the OLS data, the entire sample's OSE, SS, and EI scores are generally significant and strongly correlated with customer satisfaction (CS). However, given that there are gender disparities, seller service is more likely to have an impact on the contentment of male customers, whereas security and privacy have a more positive impact on the satisfaction of their female friends. The results of my research could be very valuable to exist internet firms selling cosmetics and beauty products, especially new entrants.

My study is restricted to the controls incorporated into the empirical models. Consequently, in order to have a better overall picture, researchers need to add psychological and time elements in their future investigations. Additionally, a qualitative technique might be employed to obtain in-depth data that would clarify the reasons for the gender inequalities in customer satisfaction and its causes.

6. MARITAL STATUS AND SATISFACTION OF ONLINE SHOPPERS

6.1 Descriptive statistics

The percentage of legally married participants is the highest among men (50.3%) and women (38.7%), as indicated in Table 5.1 above (Section 5), while the remaining participants 30.3% of men and 35.3% of women are still unmarried or have never been legally married. Intriguingly, I discovered that 26.3 percent of women and 19.3 percent of men in this survey are divorced or separated (i.e., the group of "Others"), respectively. The demographic data also reveals that the highest percentages of males (44.8 percent; 32.4 percent) and females (52.6 percent; 19.3 percent) in my survey respectively held bachelor's and master's degrees. Additionally, 65.6 percent of men and 66.1 percent of women who responded reported having an annual income of over 10 million VND. 1.4% of the guys were among them.

I used a one-way ANOVA technique and the Ordinary Least Square (OLS) regressions to deal with the data and produce the results necessary to achieve my study goals. The former provides tools to identify the determinants of CS across various groups of online shoppers (i.e., single vs. married vs. divorced/separated), while the latter helps us determine whether there are any significant differences between different groups of participants (males/females and marital status) regarding their satisfaction with online shopping.

6.2 The effects of Marital Status on the Satisfaction of B&C Online Shoppers

Table 6.1a provides the one-way ANOVA findings for online B&C shoppers' satisfaction dependent on their marital status. Panel B displays the analysis of variance and Barlett's test for equal variances, whereas Panel A displays mean differences between three client groups (i.e., single, married, and others).

I observed that in Panel A, the mean CS of the "other" group those who are divorced or separated is the highest, followed by the groups of "single" people (3.6881) and "married" people (3,6002), respectively. It follows that 3.6683 is the mean across all categories. According to Panel B's significance threshold of 0.0465 (F=3.09), there is evidence of a statistically significant difference in the mean CS between the aforementioned three different groupings of

variables. This supports my initial hypothesis, which states that there is a considerable difference in CS between internet shoppers who are single, married, divorced or separated. Marriage has a legitimate impact on people's psyche, level of happiness, and expectations for future purchases. As a result, online buyers with a variety of marital statuses need to appreciate the products and their purchasing for beauty and cosmetics. For instance, a married online shopper might have higher expectations of the goods and services they get from online vendors due to their experience and influences from their spouses, and as a result, they might have lower CS than their unmarried peers, single online shoppers, and divorced or separated online shoppers, who are generally more liberated, and easier in their selections. Although this outcome is encouraging, the study is still unsure exactly which particular groups varied. In order to address this problem, I kept performing a post hoc test for the pairwise comparisons of means with identical variances (Table 6.1b).

Table 6.1a ANOVA test for the satisfaction of online shoppers based on marital status

Panel A: Summary of Customer Satisfaction

Marital Status	Mean	Std.	Freq.
Single	3.6881	0.4860	140
Married	3.6002	0.5766	179
Others	3.7622	0.5207	100
Total	3.6683	0.5372	419

Source: Author estimation

Panel B: Analysis of Variance

	Customer Satisfaction	Sum of Squares	Df	Mean Square	F-test
Marital Status	Between groups	1.7660	2	0.8830	3.09**
	Within groups	118.8503	416	0.2857	(0.0465)
	Total	120.6162	418	0.2886	
Bartlett's test for equal variances:					4.6277*
					(0.099)

Source: Author estimation

   The pairwise comparison results for the Tukey post hoc test (Table 6.1b), in particular, showed that at least one of the groups' means is different from the means of the other groups. In other words, pairwise comparisons of means with

equal variances can assist us to identify the different groups that varied from one another. I discovered that there is a statistically significant difference in CS between married and divorced/separated people. The positive and significant coefficient of 0.1619 (p-value = 0.041; t-value = 2.43), which is demonstrative of this, are present. This is intriguing because married internet buyers typically rank their experiences with items worse than their counterparts who are divorced or living apart. When the former (married) utilise beauty and cosmetics items to woo their husbands, their spouses would probably comment negatively on such products, which will negatively impact consumers' psyche and lead to lower levels of satisfaction.

Another scenario is that married online buyers limit their use of online goods because they face greater pressure from their families, jobs, and personal lives. Their experiences with online shopping could be negatively impacted by pressure and stress from their spouses and children. For instance, they could speed through shopping and decision-making because they have home maintenance work to do. The latter group (divorced/separated) has more time and freedom to take care of themselves. They tend to be happy people, perhaps as a result of events in their married lives. Taking care of their appearance and beauty, for instance, can help people attract new relationships. Additionally, they are more at ease and appreciate the numerous online purchasing options provided by the sellers.

Additionally, compared to single people, married people are more influenced by the cost aspect, which could lower their level of pleasure. The mean differences between married and single people (p=0.5403; t=1.06; and between single and divorced/separated consumers (p=0.313; t=-1.46), respectively, are not supported by the data. This result indicates that there isn't any conclusive or meaningful evidence that single people purchase online differently from other groups.

Table 6.1b Pairwise comparisons of means with equal variances for the satisfaction of online shoppers based on marital status

	Number of Comparisons
Marital Status	3

Customer Satisfaction	Contrast	Std. Err.	t	Tukey p-value	Tukey 95% Conf. Interval	
Marital status						
Married vs single	-0.0878	0.0603	-1.46	0.313	-0.2297	0.054
Others vs Single	0.0741	0.0700	1.06	0.540	-0.0905	0.2387
Others vs Married	0.1619	0.0667	2.43	0.041	0.0050	0.3189

Source: Author estimation

6.3 The Effect of Marital Status on the Satisfaction of B&C Online Shoppers: Does Gender Matter?

Table 6.2a reports on the ANOVA findings regarding the variations in marital status-based online shopper satisfaction between males and females. The differences between the two groups of gender-marital are summarised in Panel A (male & single VERSUS male & married VERSUS male & others; and female & single VERSUS female & married VERSUS female & others). For the first group, I discovered that the mean CS of single males (3.8232) is the highest, followed by those who are divorced or separated (3.7619), and those who are married (3.8232). (3.7473). For the second category, females who are divorced or separated have the greatest mean CS (3.7623), followed by females who are single and married (3.6262). (3.4990). There is a statistically significant difference in the mean CS between the aforementioned three separate groups of variables, as shown in Panel B, where I discovered that the significance threshold for the female group is 0.0046 (F=5.48). The results for the male group, however, were not significant, with a p-value of 0.7542. These results support my second hypothesis, which states that there is a significant difference between male and female internet shoppers in the marital-status satisfaction nexus.

To put it another way, the main finding in Tables 6.1a and 6.1b is only shown for a group of female online customers. This can be explained by the fact that women are typically more impacted by married status due to the added responsibility of caring for their families and society's expectations of physical attractiveness. Contrarily, guys frequently experience less stress when it comes to caring for their families and children, and they have lower demands for beauty and cosmetics items (perhaps insignificant).

Table 6.2a ANOVA test for the satisfaction of online shoppers based on marital status: effects of gender

Panel A: Summary of Customer Satisfaction: Male versus Female Online Shoppers

Gender & Marital Status	Mean	Std.	Freq.
Male & Single	3.8232	0.5113	44
Male & Married	3.7473	0.5317	73
Male & Others	3.7619	0.5846	28
Total	3.7732	0.5335	145
Female & Single	3.6262	0.4637	96
Female & Married	3.4990	0.5868	106
Female & Others	3.7623	0.4981	72
Total	3.6127	0.5317	274

Source: Author estimation

Panel B: Analysis of Variance

	Customer Satisfaction	Sum of Squares	df	Mean Square	F-test
Male & Marital Status	Between groups	0.1625	2	0.28	0.28 (0.7542)
	Within groups	40.8220	142	0.2875	
	Total	40.9846	144	0.2846	
	Bartlett's test for equal variances:				0.6191 (0.734)
Female & Marital Status	Between groups	3.0012	2	1.5006	5.48*** (0.0046)
	Within groups	74.1894	271	0.2738	
	Total	77.1906	273	0.2827	
	Bartlett's test for equal variances:				5.8539* (0.054)

Source: Author estimation

In light of the aforementioned results, I carried out a pairwise comparison of means with equal variances for the Tukey post hoc test (Table 6.2b), and I discovered that there is a statistically significant difference in CS between women and those who are divorced or separated from their partners and women who are married. The substantial positive coefficient of 0.2634 (p-value = 0.003; t-value = 3.30) makes this clear. More specifically, this result shows that female online buyers who are divorced or separated have greater mean CS levels than their married counterparts. However, I did not discover any statistically significant mean differences between the other groups, such as between married females and those who are single (p-value = 0.739; t-value = -0.74), or between single males and those who are divorced or separated (p-value = 0.884; t-value = -0.47), or between married males and those who are divorced or separated (p-value = 0.992; t-value = 0. These findings also support what I had predicted about the disparities between men and women in CS depending on marital status. I only discover evidence of a distinction between married and divorced/separated internet customers when they are female. This means that when purchasing online, women are more likely to consider their marital status.

Table 6.2b pairwise comparisons of means with equal variances for the satisfaction of online shoppers based on marital status

	Number of Comparisons
Male & Marital Status	3
Female Male & Marital Status	3

Customer Satisfaction	Contrast	Std. Err.	Tukey		Tukey	
			T	p-value	95% Conf. Interval	
Male & Marital status						
Married vs single	-0.0759	0.1023	-0.74	0.739	-0.3183	0.1665
Others vs Single	-0.0613	0.1296	-0.47	0.884	-0.3683	0.2457
Others vs Married	0.0146	0.1192	0.12	0.992	-0.2677	0.2967
Female & Marital status						

Married vs single	-0.1272	0.0737	-1.73	0.198	-0.3009	0.0465
Others vs Single	0.1362	0.0816	1.67	0.219	-0.0560	0.3284
Others vs Married	0.2634	0.0799	3.30	0.003	0.0751	0.4517

Source: Author estimation

6.4 The Effects of Marital Status on the determinants of CS: regression results

Table 6.3 provides OLS regression findings on the CS determinants based on the customer's marital status with reliable standard errors. For a group of single internet buyers who were never legally married, Panel A reports the factors that influence CS. While Panel C displays the regression results for the group of people who are divorced or separated, Panel B gives comparable results for the group of online buyers who are currently legally wed.

In Panel A, I observed that the Online Shopping Experience (OSE) and External Incentives (EI) have a substantial impact on single people's cost-savings (CS) rates (Coefficient = 0.2844; t-value = 4.16; p-value = 0.000 and 0.2826, respectively). SS (Coefficient = 0.0197; t-value = 0.24; p-value = 0.813) and SP (Coefficient = 0.0642; t-value = 1.09; p-value = 0.279) are the only two components with negligible coefficients but nevertheless a positive indication. My findings demonstrate that the online purchasing environment and incentives provided by online merchants frequently have an impact on unmarried customers.

I discovered in Panel B that every component is relevant and significantly correlated with the CS of a group of legally married online buyers. The OSE (Coefficient = 0.1577; t-value = 1.81; p-value = 0.072), Seller Services (SS) (Coefficient = 0.1895; t-value = 1.90; p-value = 0.059), EI (Coefficient = 0.2386; t-value = 2.18; p-value = 0.031), and Security/Private (SP) (Coefficient = 0.0883; t-value = 1.37; p- These results demonstrate that married online buyers are sensitive to all elements, including the online shopping environment, the services and outside incentives provided by the online merchants, and the security and privacy protection of their personal data. With the stress of life and job, it's possible that married people are more tense and

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worried. They are pickier about the goods and services they utilise because they have too many considerations.

In Panel C, I discovered that there are two key significant drivers of CS for the group of divorced/separated people, which include SS (Coefficient = 0.2454; t-value = 2.51; p-value = 0.014) and EI (Coefficient = 0.2554; t-value = 1.66; p-value = 0.099). The other two factors, OSE and SP, have insignificant coefficients, as shown by their t-values of 0.34 and 0.33 and their p-values of 0.73 and 0.252, respectively. The outcome shows that online buyers who are separated or divorced are concerned with seller services and outside incentives. This may be because vendors' offers and promotions make them more pleasurable.

Table 6.3 OLS Regressions: Effects of Marital Status on the determinants of CS.

Dependent: CS	Panel A: Single or Never Married		Panel B: Legally Married		Panel C: Others (i.e., Divorced, Separated)	
	Coefficient	t-value (p-value)	Coefficient	t-value (p-value)	Coefficient	t-value (p-value)
OSE (β_2)	0.2844***	4.16 (0.000)	0.1577*	1.81 (0.072)	0.0346	0.34 (0.733)
SS (β_3)	0.0197	0.24 (0.813)	0.1895*	1.90 (0.059)	0.2454**	2.51 0.014)
EI (β_4)	0.2826***	4.16 (0.000)	0.2386**	2.18 (0.031)	0.2554*	1.66 (0.099)
SP (β_5)	0.0642	1.09 (0.279)	0.0883***	1.37 (0.172)	-0.0863	-1.15 (0.252)
Constant (β_0)	1.3599***	5.42 (0.000)	1.2484***	2.70 (0.008)	2.0891***	3.58 (0.001)
Observations	140		179		100	
R-square	0.3885		0.3472		0.2207	
Wald Chi 2	28.48*** (0.000)		7.62*** (0.000)		3.44*** (0.000)	

Source: Author estimation

6.5 Section summary

My dissertation's last section sought to determine whether marital status had any bearing on whether internet clients were satisfied or not. The differences between three groups of online consumers namely, those who are legally married, those who are divorced or separated, and those who are single or never married concerning their satisfaction with their online purchases of beauty and cosmetics in the Vietnamese market are the subject of more particular attention. The degree of pleasure among online buyers who are divorced or separated is notably higher than among those who are legally married (and not separated), according to the data I discovered. I went one step further and attempted to examine if their gender had any real bearing on the relationship between their marital status and happiness. I discovered that the aforementioned finding is only apparent in the group of female people, however, it is not noteworthy in the case of the male population. The final category of online buyers I looked at was single or never married, legally married, and divorced/separated. I compared how these groups differed in the factors that determine customer happiness.

My findings have made a positive impact on the literature on consumer satisfaction and its factors, the studies of the beauty and cosmetics industry, and the trends in Vietnamese online shopping. These have consequences for both current online companies and those looking to enter the market, as consumer demographics have a big impact on how customers behave, think, and feel.

In this study, I concluded that married status significantly affects online shoppers' overall happiness in the Vietnamese market's beauty and cosmetics sector. The study does not discover any conclusive proof for males; however, it is found more frequently in female groups of people. This shows that online retailers should concentrate on these aspects in the years to come to increase client happiness.

The primary shortcoming in my research is that I didn't account for other variables like age, education, or income. Therefore, I recommend that future studies cover these elements and expand on our research by taking into account the psychological factors of online shoppers. Furthermore, since my findings might not apply to other nations, industries, or product and service contexts, researchers might also adapt my research idea to various contexts of sectors and nations.

7. CONCLUSION AND CONTRIBUTION OF THE THESIS TO SCIENCE AND PRACTICE

7.1 Concluding remarks

Three essential research goals are outlined in the thesis. I prepared a questionnaire based on a five-construct theoretical model of CS for use in the first study and verified it. Three hundred thirty-four responses were obtained, and they were employed fairly equally for EFA and CFA approaches, demonstrating the validity and dependability of my survey and theoretical model. In contrast to earlier CS research on cosmetics, I drew emphasis on the parts of customers' experiences with their purchases of beauty and cosmetics in online shopping that have noticeable effects on their satisfaction with these services. For five investigated constructs, internal consistency reliability has been demonstrated using Cronbach's Alpha coefficients (α). These findings suggest that the five emerging elements.

Additionally, I used the CFA approach to look at the construct validity and reliability of the questionnaire following the EFA testing. Convergent and discriminant validity were computed to assess the concept validity of the measure. All of them satisfy the requirements for discriminant validity and support the conclusion of an apparent convergent validity for all constructs. Finally, I tested the set of hypotheses using the SEM model and discovered that all of them are supported. This indicated that my model's constructs, such as OSE, SS, EI, and SP, are crucial elements influencing the CS of online firms in the beauty and cosmetics industry. This is consistent with earlier research and my theoretical framework. The current study offers a rigorous and trustworthy questionnaire that accurately reflects the theoretical framework I have created.

In the second study, I examined factors that influence customer satisfaction while buying online in the Vietnamese market for beauty and cosmetics products and further explored if gender had any bearing. I studied a sample of 419 Vietnamese customers, both males and females, using a theoretical model that I built using five constructs. Online shopping experience, customer service, outside incentives, security/privacy, and personal characteristics are some of these constructs. According to the t-test results, I discovered that men tend to be much more satisfied with their purchases than women. The outcomes of several regressions supported this. Additionally, I discovered that male

customers are more satisfied overall with their online purchasing experiences, services, and external incentives, including ordering, payment options, delivery and fulfilment, guarantee policies, website layout, prices, promotions, and product features. The mean values between these two categories of clients in terms of security and privacy, however, did not significantly differ (SP). This might be because male clients tend to focus more on SP; as a result, they are drawn to technology concerns and awareness of risks associated with SP.

According to OLS findings, I discovered that for the full sample, OSE, SS, and EI are typically considerably and favourably correlated with customer satisfaction (CS). However, given the gender disparities, male customers are more likely to be negatively impacted by seller service, whilst female counterparts are more likely to be favourably impacted by security/privacy. The results of my research could be very valuable to existing internet firms selling cosmetics and beauty products, especially new entrants.

In the third study, I aimed to find out if there were any variations in online customers' satisfaction according to their marital status. I specifically focused on the variations among three categories of online shoppers (i.e., those who are single or never married, those who are legally married, and those who are divorced/separated) regarding their satisfaction with online shopping for beauty and cosmetics products in the Vietnamese market. Intriguingly, I discovered convincing evidence that online shoppers who are divorced or separated are more satisfied than their peers who are legally married but not divorced.

I went on to investigate further to see if their gender had any bearing on the relationship between their marital situation and satisfaction. I discovered that the aforementioned result only applies to the female group of people and is not significant for the male group. In my final analysis, I compared the factors that determine customer happiness among three categories of online shoppers: those who are legally married, those who are divorced or separated, and those who are single or have never been married. My research is anticipated to add to the body of knowledge on customer satisfaction and the factors that influence it, particularly demographic factors (e.g., Oyewole, 2001; Ringle, Sarstedt, & Zimmermann, 2011; Kim, Cavusgil, & Cavusgil, 2013). In Vietnam and other emerging nations, internet retailers must operate as well as potential newcomers to the beauty and cosmetics industry. In reality, my findings have influenced research on the factors that influence customer happiness, the industry of beauty products, and Vietnamese online shopping

trends. There are repercussions for already-existing online firms as well as for those that are considering entering this industry, as demographics of the target market have a big impact on consumer psychology, behaviour, and satisfaction.

I conclude this study that the marital status of online consumers of beauty and cosmetics in the Vietnamese market significantly affects their overall satisfaction. Although I was unable to locate any conclusive proof for males, it is more frequently observed for female groupings. This shows that online merchants should concentrate on these aspects in the future to increase client happiness.

7.2 Contribution of the thesis to science and practice

Numerous advancements in research and practice are made by this thesis. In comparison to earlier CS research on cosmetics, this thesis provides scientific insight into the parts of customers' experiences with their online purchases of beauty and cosmetics that significantly impact their happiness with these services. First, it contributes to the creation of a valid and reliable questionnaire that accurately captures the five constructs that make up the developed theoretical model: the online shopping experience, external incentives, customer service, security/privacy, and personal characteristics. Therefore, these five-factor models can be used as a baseline for future studies in the same field. This thesis also contributes to the strands of CS literature (e.g., Rita, Oliveira, & Farisa, 2019; Chiang & Dholakia, 2003; Liebermann & Stashevsky, 2009; Giao, Hang, Son, Kiem, & Vuong, 2020; Giao, Thy, Vuong, Tu, Vinh & Lien, 2020; Nguyen, Pham, Tran, & Pham, 2020; Nguyen, Phan, Le, & Nguyen, 2020) and consumer behaviour for cosmetics (Liu, Lin, Lee, & Deng, 2013). In most cases, Giao, Hang, Son, Kiem, and Vuong (2020) investigate how satisfied tourists are with Bao Loc in Vietnam. They demonstrate how three things responsiveness, dependability, and empathy affect tourists' satisfaction. Additionally focusing on CS in their research were Giao, Thy, Vuong, Tu, Vinh, and Lien (2020). Specifically, they looked at variables affecting CS with smaller than container load cargo services provided by logistics firms in Ho Chi Minh City (Vietnam). The six crucial factors they have identified are the service process, image, resource, price, management, and outcomes.

In addition, Nguyen, Pham, Tran, and Pham (2020) look into how customer loyalty to e-banking in Vietnamese commercial banks is impacted by service quality, CS, and switching costs. They discovered that five variables, including e-banking service quality, dependability, responsiveness, service capacity, empathy, and tangibility, have a beneficial impact on CS.

Finally, Nguyen, Phan, Le, and Nguyen (2020) investigated the factors that influence e-government satisfaction in Hanoi (Vietnam) and their prospective consequences. They discovered six outside variables that are highly pertinent to how satisfied people are with the e-government. This includes transparency, community support, trustworthiness, convenience, and efficiency. Gender, age, educational attainment, and Internet usage frequency were also discovered as four control factors that were connected to satisfaction. I believe my study is the first to explore disparities between male and female customers regarding their satisfaction with buying online beauty and cosmetics products in Vietnam and its drivers after using all of these prior studies on CS in different contexts in Vietnam. Last but not least, my thesis' conclusions need to be added to the body of prior research on factors that influence consumer satisfaction.

In essence, existing online retailers of cosmetics and beauty products are quite interested in the thesis findings, especially the new entrants. The findings specifically offer business owners and managers in the Vietnamese market of the online beauty and cosmetics purchasing sector practical implications. They are also anticipated to raise online businesses' understanding of the importance of client pleasure when purchasing beauty and cosmetics products. They may develop a suitable marketing plan for this distinct market niche, which is expected to grow dramatically in the upcoming years. These useful ramifications can also be applied to other Asian and developing nations like Thailand, Malaysia, and the Philippines, where online beauty and cosmetics purchasing has grown in popularity. In those nations, online retailers can take into account the key elements influencing clients. Furthermore, my research has implications for both current internet enterprises and upcoming entrants in Vietnam and other Asian nations (which show a similar online shopping trend). For instance, they may take into account the elements of my thesis while coming up with plans and strategies to increase consumer happiness, which would then increase their revenue and profits. Last but not least, my study is the first to create and validate a thorough questionnaire in Vietnamese, allowing other studies in the same market to refer to it without having to revalidate it. Similarly, online companies in the beauty and cosmetics industry

can adapt my questionnaire survey to meet the specifics of their brand and use it as a starting point for their marketing survey.

One of the limitations of the thesis is that some of the other factors related to psychology are missing from the model. I, therefore, urge additional research to examine the impact of psychological variables on customer satisfaction while buying beauty and cosmetics products online. Furthermore, because my research was solely done on the Vietnamese market and in the beauty and cosmetics industry, its conclusions might not apply to other nations or other sectors. By testing new markets and sectors, further research can expand my findings. Furthermore, the scope of my research is restricted to the empirical models' control variables. Therefore, to have a better overall picture, researchers should add psychological and time elements in their future research.

Additionally, a qualitative approach can be employed to obtain detailed data that illuminate the reasons behind gender disparities in customer satisfaction and its factors. Finally, since my findings might not apply to other nations, industries, products, or services, more study can also adapt my research idea to various settings of sectors and countries.

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9. LIST OF PUBLICATIONS BY THE AUTHOR

❖ **Journals Aticles:**

✓ **Nguyen**, T. T. N. (2020). Developing and validating five-construct model of customer satisfaction in beauty and cosmetic E-commerce. *Heliyon*, *6*(9), e04887. **(indexed Scopus and SSCI)**

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❖ **Conferences Proceedings:**

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✓ **Nguyen**, T. T. N. (2020). A Qualitative Study on E-Purchasing Cosmetics Product Intention towards Luxury Brands in Vietnam. Proceedings of The International Conference on Business and Finance (ICBF).

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- **IGA / FaME / 2020/011** - Research of current economic topics in the context of Southeast Asia. Authors: Viet Anh Ho (Pr .: 50); Thi Ngoc Diep Nguyen (Prac .: 50); Trieu Tran Van Hai (Prac .: 50); Trang Le Truong Diem (Prac .: 50); Thuan Nguyen Thi Nhu (Prac. :); Thi Thu Huong Nguyen (Pr .: 50); Son Tran Ngoc (Prac. :); Publication year: 2020

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Biography

My name's Nguyen Thi Nhu Thuan, I am a lecturer/researcher at the Hoasen University, Vietnam and Vice Director of NT-II Trading import export cosmetics company limited. I have more than ten years of experience working in companies and eight years of teaching experience in tourism and hospitality, International Marketing & Business Management. My research interests are consumer behavior in Marketing, Economics and Business management.

I had published my research paper in prestigious journals such as Heliyon Jounal, international journal of Finance, Economics, Business and among others.

I work wholeheartedly for the sustainable development of the education and wish to become an excellent teacher so that I can deliver my knowledge and practical experience to the young generation.

Teaching is the job I am always dedicated and wish to devote to the development of the country. I am constantly improving my experience, knowledge and skills. Affirm that the work I am doing is a real and professional job. Besides, I also constantly improve my knowledge to better serve my own business.

Education & Qualifications

- From July 2017 to August 2021: Studied Doctoral at Thomas Bata University in Czech Republic. Majoring in Economic and management. Thesis: "Determinants of Customer Satisfaction: Evidence from Online Beauty and Cosmetic Shopping in Vietnam".
- From October 2012 to January 2014: Studied master at Buckingham University, the UK, majoring in International Marketing Management. Graduate in January 2014.

Thesis: "Key variabe that affect Consumer Decision Making in the Fashion Industry in Singapore".

- From September 2006 to June 2010: Studied degree at Ton Duc Thang University, Ho Chi Minh City, Faculty of Social Affairs and Humanities, majoring in Tourism Management.
- From 1994 to 2006: Study at Nguyen Binh Khiem High School, Chu Se Town, Gia Lai Province.

Working Experience

- From October 2018 to Now: Vice Director of NT-II Trading Import Export Cosmetics Company Limited. I manage all the company's business processes. Controlling all import and export activities, manage the budget and personnel of the company.
  (Full-time working) Website: http://myphamntii.com/sanpham.html.

- From September 2016 to Now: I have been working at Hoasen University as a Lecturer in Marketing Department, Faculty of Economics & Commerce. I currently teach the following subjects: Principle of Marketing, Public Relation, Branding Management, Consumer Behavior, Research Marketing... and most of subjects I teach by English. At the same time, I participated in writing scientific research papers with my colleagues.and instuction
  (Full-time working) Website: https://www.hoasen.edu.vn/vi

- From October 2015 to June 2016: Visiting lecturers, University of Finance – Marketing, Vietnam. I teach about Marketing, Business Administration and other relevant commercial sectors.
  (Part-time working) Website: https://www.uef.edu.vn/

- From February 2014 to July 2016: I have worked for Saigon Newport Corporation under Ministry of Defense. Currently, it is the biggest port in Vietnam and one of 20 world biggest ports. I am Deputy Manager of Sales & Marketing Department, in charge of overseas import and export. Moreover, I am in charge of training new employees of the Corporation. I usually work, negotiate contracts with foreign partners about imported and exported shipment. Involve in receiving foreign delegations which

visit and work with the port. Act as interpreter for Board of Directors when going overseas.
(Full-time working) Website: https://saigonnewport.com.vn/Pages/Default.aspx

- From April 2013 to December 2013: When I studied Master at Buckingham University – the UK, I was the collaborator of the university with the specific tasks such as translation of documents, guiding new students how to complete admission procedures, and interpreter for Vietnamese tourists. (Part-time working)
Website: https://www.buckingham.ac.uk/

- From February 2011 to February 2012: I worked for Bluesky Trading Service Advertising Company as Manager of Event Organization Department. Specific tasks: Planning and staging of programs and workshops. Presentation of the draft programs to the partners and monitor programs. (Full-time working) Website: http://blueskyvietnam.vn/

- From February 2010 to February 2011: Teaching Assistant, Faculty of Social Affairs and Humanities, Ton Duc Thang University, Vietnam (Part-time working) Website: https://www.tdtu.edu.vn/trang-chu

- Form February 2009 to February 2010: As the third-year student, I signed contract with SAVACO Tourism Trading Service Company and worked as Executive Assistant in charge of managing and operating tours. Specific tasks: Make plans, management and supervise domestic and international tours. Act as MC for the workshops of the company and partners. (Part-time working) Website: http://www.savacotourist.com/

Education Certificates & Research Training

- Data Analysis in SPSS & Statistics Certificate in predoctoral Training center
- Certificate for publishing scientific articles in international journals
- Certifiacte in international Conference on Business Management and Social Innovation

- Certificate of Senior Lecturer, Ministry of Education and Training
- Postgraduate certificate in higher education, Buckingham University, UK
- The Degree of bachelor Certificate, Ton Duc Thang University, Vietnam

Teaching experiences in subject

Developed and implemented various lesson plans and successfully achieved student participation by connecting the lesson with practical. Be responsible for teaching some subjects in English:

- Marketing Strategy
- Consumer behavior
- Research Marketing
- Public Relations
- International Marketing
- Brand management
- Direct Marketing
- Intergrated Marketing Communication
- Principle of Marketing

Skill related to the study

- Communication and presentation skill at the Science conferences and class
- Planning, deploying, and monitoring skill
- Business Management
- Conference-organizing skill
- Skill of contract negotiation and receipt of foreign delegations
- Skill of research Methodology
- Work in a team or independently, honest, responsible, self-disciplined, inquisitive, enthusiastic.
- Capability to learn new thing. Ability to learn quickly and cope well under pressure and deadlines.
- Strong written and verbal communication skills in English and Vietnamese

Journals Aticles & Research Conferences Links

- *https://www.sciencedirect.com/science/article/pii/S2405844020317308 ?fbclid=IwAR2bd9KOjAc_wFWVLsxhkACSejk0B2xRpKG6FyB6grxzi Aa_-VZP69JnSE0*
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Determinants of Customer Satisfaction: Evidence from Online Beauty and Cosmetic Shopping in Vietnam

Faktory ovlivňující spokojenost zákazníků při on-line nákupu kosmetických výrobků ve Vietnamu

Doctoral Thesis