Marital Status and Satisfaction of Online Shoppers in the Beauty and Cosmetic Sector in Vietnam*

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Abstract

We investigate the impact of marital status on the levels of satisfaction of online shoppers in the beauty and cosmetics industry in Vietnam. We find a significant difference in satisfaction between married and divorced/separated online shoppers. More specifically, the latter reveals higher level of satisfaction than the former. Extended analyses further show that this finding is only observed for female online shoppers whilst it is insignificant for their male counterparts. Moreover, we find significant differences in determinants of customer satisfaction between three different groups of online shoppers: single, married, and divorced/separated. While married individuals' satisfaction is affected by all factors (Online shopping experience; Seller Services; External Incentives; Security/Privacy), that of their divorced/separated peers are influenced by only seller services and external incentives. Also, single participants are satisfied with their online shopping driven by their online shopping experience and external incentives. Our findings contribute to the stream of customer satisfaction literature, and to the studies in beauty and cosmetics sector as well as online shopping trends in Vietnam. They contain implications for existing online businesses and new or potential market entrants as to which customer demographic factors have significant influences in terms of customer psychology, behaviour and their satisfaction.

Keywords: Males, Females, Online Shopping, Satisfaction, Beauty and Cosmetics, Vietnam

JEL Classification Code: C12, M15, M10, M31

1. Introduction

In view of its importance in successful marketing, every online business need to understand the key factors affecting customer satisfaction (CS). This is never questioned. CS is widely defined as "a complex and elusive phenomenon" (Peterson & Wilson 1992) and "To be able to interpret and effectively utilize customer satisfaction ratings, it is necessary to understand what determines them as well as know what variables and/or factors relate to them" (Oyewole, 2001). Typically, socio-demographic factors are well-known in determinants of CS literature as they demonstrate significant effects on consumer behaviour, psychology and in turn, their satisfaction towards a product or service. These variables comprise of marital status, social class, gender, income, age, education and so on. All of them have been of great interests to academicians for years and have been one of the most interesting subjects of research in studies of CS and customer behavior (Berelson & Steiner, 1964; Slocum & Mathews, 1970; Myers, 1971; Myers & Mount, 1973; Bellenger, Robertson, & Greenberg, 1977).

There is a stream of literature focusing on investigating the determinants of CS (e.g., Oyewole, 2001; Giao, Hang, Son, Kiem, & Vuong, 2020; Giao, Thy, Vuong, Tu, Vinh & Lien, 2020; Nguyen, Pham, Tran, & Pham, 2020; Nguyen, Phan, Le, & Nguyen, 2020), yet no studies to date, to our best of knowledge has investigated whether marital status influence CS of online shoppers in beauty and cosmetics sector, particularly in Vietnamese market which is one of

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the countries witnessing the fastest growth in e-commerce. We, therefore, fill this important void by classifying online shoppers into three different groups (i.e., single or never married; legally married; and divorced/separated) and test their differences in CS. We then continue taking a step further to examine how the findings are different for male and female groups of individuals. Finally, we place on the differences in determinants of CS between three marital status groups. The online beauty and cosmetic industry are chosen for this current research because this sector has significantly grown in recent years following the growth of the global economy and digital developments.

Marital status has been found to be positively related to physical and psychological well-being, and gender differences in well-being among legally married and unmarried individuals are well documented (see Mookherjee, 1995; Duff & Campbell, 1976; Glenn & Weaver, 1979; Geerken & Gove, 1983; Pearlin & Johnson, 1977; Williams, 1988). Furthermore, several theoretical justifications have been suggested for the results of gender differences in the perception of well-being among those legally married and their unmarried peers (e.g., Aneshensel, Frerichs, & Clark, 1981; Bernard, 1972; Radloff, 1975; Glenn, 1975). For example, Gove, Style, & Hughes (1990) argue and find a robust causal association between marriage and well-being. The proponents of the selection explanation contend that happy individuals tend to be married than unhappy ones. Meanwhile, proponents of the social roles explanations claim that roles of male individuals appear to have lower levels of stress than females, hence, they are likely to derive better benefits from marriage (Bernard, 1972; Gove & Tudor, 1973; Williams, 1988). Some other results show that marriage helps to improve perceptions of well-being for both male and female individuals, and they find that married females tend to be more satisfied than their male counterparts did (Mookherjee & Png, 1995). Although these prior researches showed mixed findings, they generally support that marriage has an interpersonal association with physical, mental, happiness and social well-being as well as their purchasing satisfaction.

In this study, we expect that affective quality of marriage is likely to be more strongly linked to female customers' satisfaction than to that of male peers since females tend to reply on their marital roles for a sense of personal value and self-worth. This argument is consistent with several studies such as Frieze (1978) and Vanfossen (1981). Gender differences in the effect of marital status on CS could be because of the dissimilar orientations and expectations that male and female online shoppers bring to the beauty and cosmetics products. As females are more likely to relate to other on a more intimate basis (Williams, 1988), they tend to be more sensitive to emotional nuance in consuming products and have more intimate involvements with others than male

individuals do. Our findings are expected to contribute to the previous literature focusing on customer satisfaction and its determinants particularly demographic variables (e.g., Oyewole, 2001; Ringle, Sarstedt, & Zimmermann, 2011; Kim, Cavusgil, & Cavusgil, 2013). They are important to the existing online sellers and future new entrants to beauty and cosmetics sector in Vietnam and other developing countries.

2. Literature Review

Research in the effects of marital status on customer satisfaction has been conducted (e.g., Dittmar, Long, & Meek, 2004), yet no studies to date, to our very best of knowledge, focus on online shopping in the beauty and cosmetics sector in Vietnamese market. As highlighted in several studies (e.g., Kim, Vogt, & Knutson, 2015), technology and internet have contributed to the significant changes of the shopping behaviour in recent year, in that customers can shop whatever they want via their smart phone, or any internet connected devices, or website. Several shopping apps were therefore launched in the market and received great attention from customers. This also happened within the beauty and cosmetics e-commerce. Previous literature (Naser, Jamal, & Al-Khatib, 1999; Saini, 2013) further found a significant influence of demographic characteristics in shaping customers' perspectives which in turn, affect their expectations, perceptions and behaviour and hence, their overall satisfaction when shopping. Among these, demographic sub-groups of gender and age are found to be important. Besides, there are other significant factors that could be related to customer satisfaction, particularly marital status where customers are classified as single or legally married or divorced/separated. However, little study has been done on this aspect and more focus has been on variables like demographics in general terms, and age or gender in more specific terms. Some exceptions include the study of Oyewole, Sankaran, & Choudhury (2008) examining customers' socio-demographic characteristics with services in the airline sector, that of Dewan & Mahajan (2014) testing the customer satisfaction and the moderating impact of demographic factor including marital status and gender in public sector banks, that of Jham (2018) which investigated the relationships between customer satisfaction, service quality, demographic factors and word of mouth communication perspectives in the retail banking in the United Arab Emirates.

More specifically, Oyewole, Sankaran, & Choudhury (2008) studied the influences of demographic variables on customer satisfaction with services in the airline sector, and found that age and household income do not have any clear impact on customer satisfaction, while marital status and gender, as well as occupation and education are likely to significantly affect customer satisfaction with airline

services. Dewan & Mahajan (2014) then looked at the customer satisfaction in the public sector banks and the moderating effect of demographic and situational factors. They found that customer satisfaction differs across individuals on the basis of their gender, marital status, age, occupancy and frequency of visiting the bank. For example, they found that female customers tend to be less delighted and satisfied with the bank than their male peers. In addition, the married individuals are more likely to be satisfied in comparison to their unmarried counterparts. Jham (2018) investigated the associations between customer satisfaction, quality of services, and demographic factors and word of mouth communications in the banking industry. Using a mixed method, they found that customer satisfaction towards service quality depends on satisfaction with various banking services which tends to create positive word of mouth communication. However, they found no significant role of customers' demographics during this process.

Under the existing mixed findings regarding the effects of marital status on customer satisfaction in various industries and countries, we conduct the current research which aims to explore the real effects of marital status (i.e., single or never married; married; divorces/separated) on customer satisfaction, and then consider the moderating impacts of gender on such relationship. Our study is the first to address these research questions in the unique context of online shopping within beauty and cosmetics sector, particularly in developing countries like Vietnam where these have become hot trends in the recent decades. In this study, we expect that there exists a significant difference in customer satisfaction between single, married, and divorced/separated online shoppers, and furthermore, gender plays an important role during this process. This is consistent with the expectation on the significant role of gender in online shopping on the customers' intention to buy online (e.g., Rodgers & Harris, 2003; Sanchez-Franco, 2006; Van Slyke, Comunale, & Belanger, 2002). In addition, it is also in line with the findings in online shopping related to the relationship between gender differences and various factors including perceived risk of online purchasing (Garbarino & Strahilevitze, 2004), website usability and design (Cyr, Bonanni, & Ilsever, 2005), and technology acceptance (Gillenson & Sherrell, 2002; Porter & Donthu, 2006; Sanchez-Franco, 2006), and other outcomes (e.g., Van Slyke, Comunale, & Belanger, 2002; Chang, Wang, Kanamori, Shih, & Kawai, et al., 2005; Cyr, Bonanni, & Ilsever, 2005). Taken together, we propose our two main hypotheses as below:

H1: There is a significant difference in customer satisfaction among single, married and divorced/separated online shoppers.
H2: The relationship between marital status and customer satisfaction is different between male and female online shoppers.

3. Research Methods and Materials

In this study, we have used online questionnaire survey to collect our primary data. Specifically, we built up the questionnaire in Vietnamese, validated it and sent out to random online shoppers who have experience or interests in shopping online beauty and cosmetics products in Vietnam. The survey comprises of five major sections: (i) personal information of the participants; (ii) Online shopping experiences (OSE) of the participants; (iii) Seller or customer services (SS) in the eyes of the participants; (iv) External incentives (EI) and security and privacy (SP) the participants received from the online sellers; (v) and the overall satisfaction of the participants or online shoppers (CS) towards beauty and cosmetics products. These sections are built upon on our self-constructed five constructs (i.e., demographics; OSE; SS; EI; and SP) which potentially affect customer satisfaction, based on previous studies (e.g., Bryant, 1995; Hokanson, 1995; Anderson & Fornell, 2000; Liu, Lin, Lee, & Deng, 2013; Chiang & Dholakia, 2003; Kincl & Štrach, 2018; Rita, Oliveira, & Farisa, 2019). This model (and questionnaire survey) is self-constructed and well-validated in another research paper of ours. We will provide these upon further request to avoid replication in research.

Initially, for the first round of questionnaire, we received 335 responses which were used for instrument validation phase of the research. Using Exploratory factor analysis (EFA) and Confirmatory factor analysis (CFA), we confirmed the good model fit for our self-constructed five-factor model estimating CS. Especially, CFA results have proved the construct validity and reliability of our questionnaire survey via the appropriate factor loading, t-values, average variance extracted (AVE) and composite reliability (CR) (see Hair et al., 2013). These results (e.g., Convergent validity; Discriminant validity) are also reported in one of our other studies, which will be provided upon request. Next, for the second round of questionnaire, we sent out the revised survey (after validating and revising) and received 419 responses, among them 145 responses from male online shoppers, accounting for 34.6% of the whole sample. This means that we received 274 responses from female online shoppers (65.4%).

Table 1 describes the demographic information of survey participants, which indicate that the majority of both male (39.3%) and female (39.4%) online shoppers have their age range of 26-30. This is followed by 22.8% male and 25.2% female respondents who aged from 21 to 25. Regarding their marital status, we found that the highest proportion of males (50.3%) and females (38.7%) participants are legally married, while 30.3% males and 35% females are still single or have never legally married before. Interestingly, in this study, we also collected data related to divorce and separation (i.e., the category of "Others"), and found that 19.3% males and 26.3% females are divorced or separated.

Given that the respondents were provided this detailed answer in the survey question. Finally, the demographic results show that the highest percentages of males (44.8%; 32.4%) and females (52.6%; 19.3%) in our survey obtained bachelor's and masters' degree, respectively. Furthermore, the proportion of respondents earn more than 10 million VND is 65.6% for males and 66.1% for females, among them 1.4% males and 0.7% females can earn highest income of at least 80 million VND. To deal with the data and to obtain the results to fulfil our research objectives, we employ one-way ANOVA approach and Ordinary Least Square (OLS) regressions. The former helps us to know whether there are any significant differences between different groups of (males/females and marital status) participants towards their online shopping satisfaction, while the latter provides tools to find out the determinants of CS across different groups of online shoppers (i.e., single vs married vs divorced/separated)

Table 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%)

4. Findings

4.1. The Effects of Marital Status on the Satisfaction of B&C Online Shoppers

Table 2a reports our one-way ANOVA results for the satisfaction of B & C online shoppers based on their marital status. While Panel A presents mean differences between three groups of customers (i.e., single, married and others), Panel B shows the analysis of variance and Barlett's test for equal variances.

In Panel A, we found that the mean of CS of the group of "other" (i.e., divorced or separated: 3.7622) is highest, which is followed by that of the group of single (3.6881) and married individuals (3,6002), respectively. The mean of all groups, hence, is 3.6683. In Panel B, we found that the significance level is 0.0465 (F = 3.09) showing evidence for a statistically significant difference in the mean CS between the above three difference group of variables. This is consistent with our first hypothesis that there is significant difference in CS between single, married and divorced/separated online shoppers. We justify that marriage affects psychology, happiness and shopping expectation of individuals, hence, online shoppers with different marital status should enjoy beauty and cosmetics products and their shopping experience differently, which in turn lead to their dissimilar CS. For example, a married online shopper may have more expectations on products and services they received from online sellers due to their experience and influences from their spouses, as such they may have lower CS than unmarried peers, such as single and divorced/separated online shoppers who have more freedom and are easier in their selections. This is good to obtain this result, yet we still do not know which of the specific groups differed. To deal with this issue, we continue to conduct post hoc test for the Pairwise comparisons of means with equal variances (Table 2b).

Table 2a: 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

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** (0.0465)
	Within groups	118.8503	416	0.2857	
	Total	120.6162	418	0.2886	
Bartlett's test for equal variances:					4.6277* (0.099)

Table 2b: Pairwise comparisons of means with equal variances for the satisfaction of online shoppers based on marital status

	Number of Comparison
Marital Status	3

			Tukey		Tukey	
Customer Satisfaction	**Contrast**	**Std. Err.**	**t**	**p-value**	**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

More specifically, we found the pairwise comparison results for the Tukey post hoc test, which indicates that that at least one of the group means is different from the other group means. In other words, the pairwise comparisons of means with equal variances can help us to determine which groups of individuals differed from each other. We found that there is a statistically significant difference in CS between divorced/separated and married individuals. This is evident by the positive and significant coefficient of 0.1619 (p-value = 0.041; t-value = 2.43). This is interesting as married online shoppers tend to be less satisfied with products they used in relative comparison with their divorced/separated counterparts. The former (married) may use beauty and cosmetics products for attracting their spouses and a possible case is their spouses negatively commented on those products that adversely affects the psychology of shoppers and result in their less positive satisfaction.

Another possible situation is that married online shoppers are stricter in consuming online products as they have more pressure in life and work as well as their families. Stress and pressure from children and spouses may adversely affect their online shopping experience, for example, rushing time to shopping and making quick decisions due to their business in taking care of home. Meanwhile, the latter (divorced/separated) should have more freedom and have more time in taking care of themselves. Due to bad experience in married life, they feel happier and relaxed after breaking with their partners. They tend to enjoy life, for example through online shopping, and taking care of their beauty and their looks to attract new partners. They are also more relaxed and enjoy the various online shopping services rendered by the sellers much more than married individuals who may be more tense and anxious with their busy family life. Last but not the least, married people tend to be more concerned about the high price of products compared to the unmarried ones, simply because they have many other things to take into consideration, such as, finance related pressure may also affect their satisfaction. However, we do not find evidence for the mean differences between two other groups, between married and single individuals (p-value = 0.5403; t-value = 1.06), or between the single and divorced/separated customers (p-value = 0.313; t-value = −1.46). These findings suggest that we found no clear and significant evidence showing that single individuals differ with other groups in terms of satisfaction in online shopping.

4.2. The Effects of Marital Status on the Satisfaction of B&C Online Shoppers: Does the Gender Matter?

Table 3a reports ANOVA results for differences between male and female online shoppers' satisfaction based on their marital status. Panel A presents that summary results for the differences between two groups of gender-marital: (1) male & single VERSUS male & married VERSUS male & others; and (2) female & single VERSUS female & married VERSUS female & others). For the first group, we found that the mean CS of male & single (3.8232) is highest, which is followed by the mean CS of male & divorced/separated (3.7619), and that of male & married group (3.7473). For the second group, the mean CS of female & divorced/separated (3.7623) is highest, which is followed by the mean CS of female & single (3.6262), and that of female & married group (3.4990). In Panel B, we found that the significance level of female group is 0.0046 (F = 5.48), which confirms a statistically significant difference in the mean CS among the above three difference group of variables. However, we found insignificant result for the male group, i.e. p-value = 0.7542. These findings confirm our second hypothesis showing that there is a significant difference in the marital status-satisfaction nexus between male and female online shoppers. In other words, our main result found in Table 2a and 2b is observed only for female group of online shoppers. This can be explained that female individuals are usually more affected by marital status as they have more pressure in taking care of family and demands for looking beautiful. In contrast, males often have less pressure in taking care of their family and children and their expectations toward beauty and cosmetics products are lower (perhaps insignificant).

Following the above findings, we continue to run the pairwise comparison of means with equal variances results for the Tukey post hoc test, and we found that there is a statistically significant difference in CS between female & divorced/separated and female & married individuals. This is evident by the positive and significant coefficient of 0.2634 (p-value = 0.003; t-value = 3.30). In more details, this result reveals a higher level of mean CS of the group of female & divorced/separated online shoppers than that of the group of female & married peers. Nevertheless, we found insignificant mean differences between other groups, between female & married and female & single individuals (p-value = 0.739; t-value = −0.74), or between the male & single and male & divorced/separated customers (p-value = 0.884; t-value = −0.47), or between the male & married and male & divorced/separated customers (p-value = 0.992; t-value = 0.12), or between the female & married and female & single customers (p-value = 0.198; t-value = −2.73), or between the female & single and female & divorced/separated customers (p-value = 0.219; t-value = 1.67). Those results again confirm our expectation regarding the differences between males and females in relation with CS based on their marital status. Indeed, we only found evidence on the difference between married and divorced/separated online shoppers when they are females. This implies that females are more sensitive to their marital status when shopping online.

Table 3a: 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

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)

Table 3b: Pairwise comparisons of means with equal variances for the satisfaction of online shoppers based on marital status

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

			Tukey		Tukey	
Customer Satisfaction	**Contrast**	**Std. Err.**	**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

4.3. The Effects of Marital Status on the determinants of CS: Regression Results

Table 4 presents OLS regression results with robust standard errors on the determinants of CS on the basis of customer' marital status. Panel A reports the determinants of CS for the group of single online shoppers who never married legally. Panel B presents the similar results for the group of online shoppers who are currently legally married, while Panel C shows the regression results for the group of divorced/separated individuals.

In Panel A, we found that there are two major factors which significantly affect the CS of single individuals, it include Online Shopping Experience (OSE) (Coefficient = 0.2844; t-value = 4.16; p-value = 0.000) and External Incentives (EI) (Coefficient = 0.2826; t-value = 4.16; p-value = 0.000). However, other two factors show insignificant coefficients but still have positive sign: 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). Our results illustrate that single individuals are often affected by their online shopping experience and incentives offered by online sellers.

In Panel B, we found that all factors are significant and positively associated with the CS of the group of legally married online shoppers. This is evident by positive and statistically significant coefficients of 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), Security/Private (SP) (Coefficient = 0.0883; t-value = 1.37; p-value = 0.172). These findings confirm that married online shoppers are sensitive to all factors such as online shopping experience, services and external incentives offered by the online sellers, and security and privacy protection of their personal information. Possibly married people are more tense and anxious with several things under the pressure of life and work. They have too many things to take into account, and hence, stricter to products and services they use.

In Panel C, we found that there are other two main significant determinants of CS of the group of divorced/separated individuals, which comprises of 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). However, other two factors show insignificant coefficients: OSE (Coefficient = 0.0346; t-value = 0.34; p-value = 0.733) and SP (Coefficient = −0.0863; t-value = −1.15; p-value = 0.252). The result demonstrates that divorced/separated online shoppers are affected by seller services and external incentives. This may be because they are more enjoyable to offers and promotions brought by sellers.

Table 4: 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)	

5. Conclusion

This research aims to investigate whether there are any differences in online customers' satisfaction based on their marital status. More specifically, we place our focus on the differences between three groups of online shoppers (i.e., single or never married, legally married, and divorced/separated) towards their satisfaction when shopping online beauty and cosmetics products in the Vietnamese market. We interestingly find robust evidence on the higher level of satisfaction of divorced/separated online shoppers than their legally married (not separated) peers. We next take a step further to test if their gender has any significant impact on the nexus of their marital status and satisfaction. We found that the result above is only observed for female group of individuals while it is not significant for the male group. Finally, we explore differences in determinants of customer satisfaction between three groups of online shoppers including single or never married, legally married, and divorced/separated online shoppers.

Our results have contributed to the stream of customer satisfaction and its determinants literature, and to the studies in beauty and cosmetics sector as well as online shopping trend in Vietnam. They contain implications for existing online businesses and new or potential entrants to this market that which demographic factors from customers have significant influences in customer psychology, behaviour and their satisfaction. In this study, we conclude that marital status plays an important role contributing to the overall satisfaction of online shoppers in beauty and cosmetics industry in the Vietnamese market, however it is more observed for female groups of individuals while we do not find significant evidence for males. This suggests that online sellers should focus on these factors in enhancing customers' satisfaction in years to come.

The main limitation for our study is that we have not considered other factors such as age, education and income. Therefore, we suggest that the future studies should cover these factors and extend our research by taking psychological factors of online shoppers into their research considerations. Further research can also apply our research idea to different contexts of sectors and countries, as our findings may not be generalized for other countries and industries as well as other products and services

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