

## Factors Influencing Customer Satisfaction with Online Food Delivery Services in Vietnam

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### Abstract

*This study aims at identifying and evaluating the main factors affecting customer satisfaction with Online Food Delivery services in Vietnam. Through the questionnaire translated into Vietnamese, this study collected 395 samples and analyzed 345 samples after eliminating unqualified data. The study utilized regression analysis and Linear Structural Relation Model (LISREL) to test the hypotheses and the constructed model. Due to higher validity and lower error, after comparing two models, this study found the linear regression model with the better fit of the data. The independent variables indicate 6 factors affecting customer satisfaction, including Price, Ease of use, Food quality, Service Quality, Promotions, and Privacy. However, only five factors had significant impact on customer satisfaction with Online Food Delivery services. Specifically, the Service Quality factor has the most impact, followed by other 4 factors: Food Quality, Price, Promotion, and Privacy. The results also show that Repurchase, Positive Word of Mouth, Brand Switching is also directly affected by Customer Satisfaction. The study offers a number of implications to help businesses in the Online Food Delivery industry improve customer satisfaction, thereby building customer loyalty.*

**Keywords:** Online Food Delivery (OFD), Customer Satisfaction, Repurchase, Positive Word of Mouth, Switching.

### 1. Introduction

#### 1.1. Research Background

In this hectic age, consumers around the world have a high demand for convenient services and products that can simplify their daily life. People living in the past had to go to the restaurant to eat or take out, now online food delivery services have offered convenience and changed consumers' behaviors. Customers no longer need to go out in adverse weather conditions, traffic jam, or after exhausting working time, they also can enjoy their favorite dishes by the Online Food Delivery (OFD) services. The ordering and delivery procedure is extremely efficient and convenient. You just need to have a computer or smartphone online and access the available applications (APPs) and websites, choose whatever you like, and wait for the delivery staff to bring them to the designated address. Besides, food is carefully packed, clean, along with a strict delivery procedure, therefore when the food reaches customers still ensures the best quality. In addition, the continuous development of technology also contributes to the growth of online delivery services. The improvements of application interface design, friendly website and app, easy to use, beautiful images, speedy access, selection, and quick payment influence on customers' satisfaction.

As we know, 2020 is a critical moment for the OFD industry. Because the Covid-19 pandemic along with the social distance in many countries around the world has caused a lot of changes in consumer behavior. Online food delivery services have provided a lot of value to both customers as well as related companies. Customers can enjoy many convenient and safe services, while still eating quality food from many restaurants but do not have to eat in the restaurants. Restaurants still maintain relationships with customers, in order to keep sales revenue and reduce operating cost by OFD. Online food delivery services provide fast catering delivery, in addition to continuously improving the service quality, they also provide many activities in collaboration with restaurant owners and payment partners to offer many attractive sales promotions for customers.

OFD services began to grow in Vietnam in 2018 and mainly focused on niche markets, serving a small group of busy young urban customers. Although the online food delivery service in Vietnam is an emerging industry and currently accounts for only 0.2% of the world's OFD market share, it is also an extremely vibrant, popular, and "booming" market. In 2020, OFD services were more important than before, not only for convenience but also as a relatively safe way to protect Vietnamese people from the Covid-19 pandemic. Following Statista.com (2021), the sales revenue from OFD in Vietnam reached 302 million USD, an increase of 95 million USD compared to 2019. According to Imarcgroup.com (2020), the market size of OFD services in Vietnam will have a compound annual growth rate (CAGR) of about 34% during the period 2021-2026.

Due to convenience and transparency for customers, more and more OFD websites and apps drive Vietnam's OFD market. OFD services need to increase their competitiveness, businesses must rank and select key factors which influence on customers' satisfaction for surviving from this highly comparative battle.

## 1.2. Research purpose

The more businesses participating in the OFD industry, the more benefits users will have. The more benefits users obtained, the more this business model is stimulated. When more and more APPs and websites provide OFD services, customers have more and more choices of service providers. To survive and thrive, online food delivery services must find ways to improve their services, maintain customer relationships, and have many compelling campaigns to attract new customers. On the other hand, although OFD service is a growing field in most countries and Vietnam, there is not much research on this industry yet, especially specialized studies on factors affecting customer satisfaction in this industry.

Therefore, the objective of this study is to analyze and determine the factors affecting customer satisfaction when using OFD services in Vietnam. Based on some previous related research, this study selects the independent variables that influence customer satisfaction as follows: Price, Ease of Use, FoodQuality, ServiceQuality, Promotion, and Privacy.

The results of this study will be of great benefit to both restaurants and online food delivery companies because they can know which factors have the most remarkable influence on customer satisfaction when using OFD service in Vietnam. This study identifies which factors significantly affect customer satisfaction, then we know how to improve our products and services and finally customize them to meet the needs of each customer. It helps to focus on marketing or sales campaigns, companies and their employees can get more information about the customers they are serving (Szwarc, 2005). Furthermore, it is also a good way to develop customer relationships and obtain marketing return on investment (Foss & Stone, 2002).

## 2. Literature Review

### 2.1. Price

According to Yu & Wu (2007), Price is defined as paid by a customer to obtain a product. Kim, Xu, & Gupta (2012) display that the pricing directly affects the value perception of products or services and then customers' satisfaction. Consumers want prices of products or services to be fair and accurately stated. According to East, Wright, & Vanhuele (2013), customers attach great importance to verifying the price of a product and this belief is crucial to the purchasing intention. Because they want to make sure that they are buying the product at the "right price", "right time", and "right place" compare with other alternative competitors.

Bodea & Ferguson (2012) show that most customers believe that they should be entitled to a fair price, the level of consumer satisfaction with a purchase can vary based on their perception of fairness. But their research also shows that if customers feel the company is making unusual profits at their expense, their likelihood of being satisfied with their purchase is significantly reduced, even though the benefits of when they own the product more than the price they paid for it.

Therefore, the first hypothesis is:

*H<sub>1</sub>: Price negatively influences on Customer Satisfaction.*

### 2.2. Ease of use

Ease of use is considered as one of the factors leading to customer satisfaction for mobile commerce websites (Amin, Rezaei & Abolghasemi, 2014). When customers use online services, they will be more inclined to shop if they are provided with detailed product information and ease to use the online website (Hawkins & Mothersbaugh, 2010). Besides, according to Ray, Dhir, Bala & Kaur (2019), ease of use is mentioned to the ease of ordering, easy filtering of food and restaurant options, and ease of order tracking.

Thus, we have the second hypothesis:

*H<sub>2</sub>: Ease of use positively influences on Customer Satisfaction.*

### 2.3. Food Quality

Namkung & Jang (2007) described the quality of food as a concept that includes "taste, freshness, variety, healthy options, and temperature". According to the study of Annaraud & Berezina (2020), food quality is an indispensable factor in the foodservice industry, it greatly affects customer satisfaction. It is also a "necessary condition" to meet the needs and expectations of customers, then make them feel satisfied (Peri, 2006).

Hence, the hypothesis is developed:

*H<sub>3</sub>: Food Quality positively influences on Customer Satisfaction.*

#### 2.4. Service Quality

In an online business, service quality is a factor that directly affects customer satisfaction (Lau & David, 2019). Additionally, the study of Devaraj, Fan, & Kohli (2002) showed that Service Quality is the dominant factor that influences customer satisfaction. Moreover, the research of Kedah, Ismail, Ahasanul & Ahmed (2015) suggested that companies need to consider service quality as a vital issue, and have specific strategies and plans to maintain and improve service quality. Because service quality directly affects and has a positive relationship with customer satisfaction, thereby bringing many benefits to businesses.

Thus, the hypothesis is developed:

*H<sub>4</sub>: Service Quality positively influences on Customer Satisfaction.*

#### 2.5. Promotion

Promotion (coupons, multiple-item discounts, and gifts) is a traditional method of customer care but is popular and highly effective. Zhang & Tang (2010) showed that the promotion activity positively and directly affects customer satisfaction and recommended that firms need to pay more attention to the effect of promotions in marketing. Especially during the epidemic season, customers always consider the cost, so the promotion deals and discount codes are even more useful and are constantly sought by customers.

As a result, we have the following hypothesis:

*H<sub>5</sub>: Promotion positively influences on Customer Satisfaction.*

#### 2.6. Privacy

Belanger, Hiller, & Smith (2002) defined that privacy is adopted as the ability to manage information about oneself. Today, the main concern of online customers is Internet-related privacy issues, customers always worry about their personal information not being protected. Companies use IP addresses and cookies to personalize communications, informing users that data collection and mining are really important and necessary. It helps companies better understand their customers, design personalized features, and enhance the customer experience. Hence, the companies that provide verification systems on their websites increase a sense of security for their customers (Belanger *et al.*, 2002).

For that reason, we built this hypothesis:

*H<sub>6</sub>: Privacy positively influences on Customer Satisfaction.*

#### 2.7. Customer Satisfaction

East, Wright, & Vanhuele (2013) depict that customer satisfaction with the product is an experience and attitude, people are satisfied for measurable reasons. They also claim that companies that increase customers' satisfaction in order to increase profitability and reputation of the company. Szwarc (2005) mentioned that customer satisfaction means that customers rate an organization's product or service based on the quality of their experience, which is compared to what they have heard about the product or organization before.

#### 2.8. Repurchasing

Repurchase is known as a customer behavior when purchasing a similar product or service on multiple occasions. Customer Satisfaction leads to customer loyalty, which means purchasing this product again (Hawkins *et al.*, 2010). Yi & La (2004) mentioned that customer satisfaction translates into repurchase intention and satisfied customers tend to repeat their purchases with the same company.

Hawkins *et al.*, (2010) also mentioned that "satisfaction leads to a number of positive outcomes", including repeat purchases. East, Wright, & Vanhuele (2013) also showed that most firms are keen to increase satisfaction among customers because this is thought to retain customers. So, it is no wonder why so many firms attempt to create satisfied customers because they are much more profitable than occasional buyers or spend a large budget to build campaigns and events to attract new customers. Hence, the hypothesis is developed:

*H<sub>7</sub>: Customer satisfaction positively influences on Repurchase.*

#### 2.9. Word of Mouth

Hawkins *et al.*, (2010) emphasized that Word of Mouth (WOM) is an act, using oral communication, for the purpose of informally sharing information between individuals, including face-to-face, telephone, or social media. They believed that people share information with their family, friends, or acquaintances due to trust. As a result, WOM can have an important influence on customer purchasing decision-making and business reputation. Additionally, Manzie (2003) made it clear that the recommendation of customers to others is more credible and more valuable than any advertisement you could possibly buy. Many types of research show that when customers feel satisfied when using the service, they will have a good impression and easily recommend the restaurant to

friends and relatives. East *et al.* (2013), Positive WOM is more than Negative WOM because people think Positive WOM is seen as more useful, they are trying to help others with their advice, saying what is good may be more constructive than saying what is bad. Blodgett, Hill, & Tax (1997) found that when consumers feel satisfied with the services they have used, they tend to say Positive WOM, and are more likely to “promote the company” (Szwarc, 2005).

Therefore, we have the following hypothesis:

*H<sub>8</sub>: Customer satisfaction positively influences on Positive Word of mouth.*

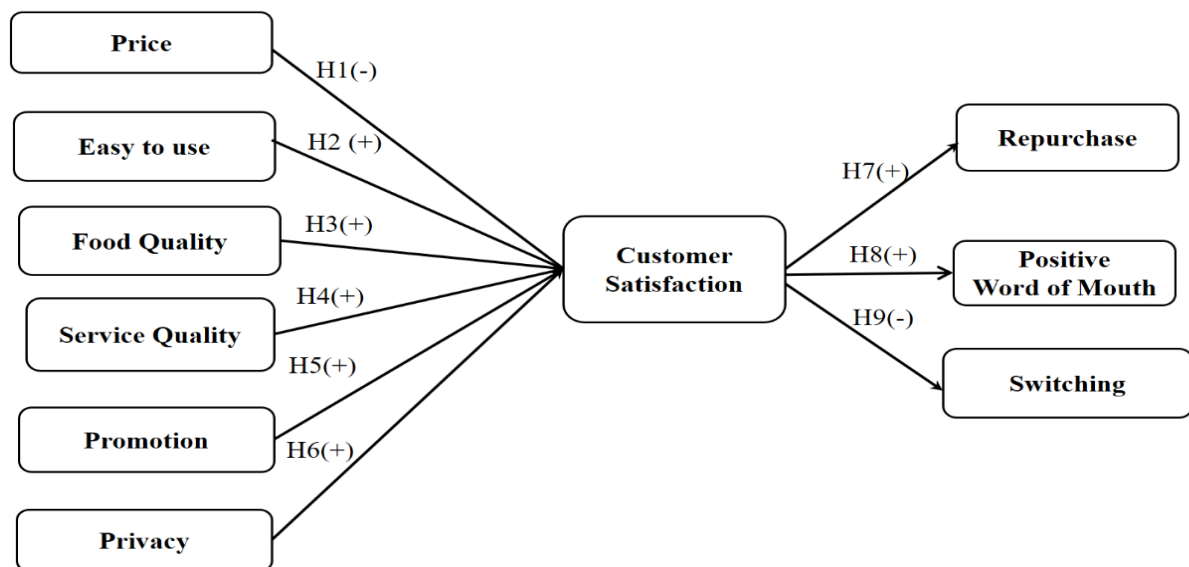
### 2.10. Switching

Brand switching is the behavior of customers when they change their mind, no longer want to use products and services of the brand and switch to using a similar product or service of another brand or in other words, they use products and services provided by competitors (Du, Yin, Wang, and Li, 2020). It happens when customers are unsatisfied with the price they pay for the product or the product quality and customer service below their expectations, not fitting their needs. This has a negative impact on the brand, can reduce sales revenue of the company, and lose market share to the competitors in the same industry.

Because the customer is the end-user of any product service. So, bringing satisfaction to customers is the key to the success of any business. If not, they will switch to other brands. When the company loses a customer, it not only “lose a future source of income” (Kotler, 1999) but also incurs the cost of finding new customers. For that reason, we have the final hypothesis:

*H<sub>9</sub>: Customer satisfaction has a positive influence on Switching*

Finally, we have Figure 1.



**Figure 1: The hypotheses and construct model of this study**

## 3. Methodology

### 3.1. Data collection method and questionnaire

Based on the literature review, questions are formulated that are directly related to the model in the research. The questionnaire was distributed to people in two massive cities of Vietnam: Hanoi and Ho Chi Minh City. The respondents to the questionnaire are those who have used OFD services, bringing high reliability to the research results. In addition, in order for respondents to clearly understand the questionnaire, as well as to avoid misunderstandings when answering, we have translated the questionnaire into the Vietnamese version for the convenience of respondents. In addition to questions directly related to customer satisfaction when using OFD services, we also collect demographic data for multi-dimensional analysis, to understand more about the research subject and evaluate the attributes of the data set, based on the assessment of normality and reliability. It included information about age, gender, education, marital status, monthly income, occupation, favorite OFD services, and the frequency of using OFD services.

The study uses a 5-level Likert scale: from Level 1: strongly disagree to Level 5: strongly agree to measure the level of satisfaction when using OFD services. This type of scale determines how much the respondents agree or disagree with a particular statement or opinion. Scores are calculated by answering a single question on the

customer satisfaction questionnaire: "I am satisfied with..."

Based on Google Forms, we conducted an Internet survey that can be completed online. Respondents can be accessed via e-mail or a hyperlink inviting them to take part in the survey. This way, responses to surveys are fairly quick and can create a questionnaire that looks very appealing and easy to answer (Szwarc, 2005).

### 3.2. Data analysis

#### 3.2.1. LISREL

LISREL software is mainly used to analyze covariance structure, it is also used to use correlation and covariance between measured variables. Using LISREL software to test the hypothesis and estimate the causal relationship between the variables. To investigate the relationship between two samples at the nominal level, the  $\chi^2$  test was used. An independent sample t-test is applied to determine the significant difference by comparing the mean of two independent groups.

#### 3.2.2. Regression analysis

Regression analysis is a well-known statistical technique, commonly used to examine the equation that best fits a set of observations of dependent and independent variables. Using this approach is a good way to understand the relationship between the variables, thereby clarifying the hypothesis of this study.

In this study, we will use the data of the customer survey using OFD services and measure the satisfaction level. From there, we can know the variables that affect customer satisfaction, the degree of influence, and which are the most important factors.

#### 3.3.3. Demographic Statistic

The demographic analysis of this study is based on factors collected from age, gender, education level, employment, and income, thereby understanding how to market to consumers and plan strategies for future consumer demand trends.

## 4. Results

### 4.1. Demographic Statistic

Through the questionnaire translated into Vietnamese, we have collected 395 samples and analyzed 345 samples after eliminating unqualified data. Table 4.1 shows detailed information about the demographic. In which, it can be seen that the percentage of women accounts for the majority, reaching 82.9%, men only reaching 17.1%. Most of the respondents are between the ages of 18-45, in which the age group of 25-35 accounts for the highest proportion, reaching 69.3%. Regarding marital status, the single rate accounted for 53.3%, the married rate accounted for 46.7%, with no significant difference. In terms of educational attainment, the percentage of people with a university degree is the majority with 67.8%. In the occupation section, the percentage of company employees is overwhelming, reaching 73.3%. Regarding the monthly salary, the percentage of respondents with a salary from 501 to 700 USD has the highest rate, accounting for 43.5%. When asked about their favorite OFD system, most respondents use online delivery apps, reaching 98%. Finally, the study shows that people in big cities have a relatively high frequency of using OFD services, which is a good sign, proving that this market has great potential and will reap many successes more in the near future. Especially, 84.4% of survey respondents said that they use OFD services e

very week. Notably, up to 38.9% of survey respondents ordered food through the OFD services 3-4 times a week. And although the group that uses the service daily accounts for only a small percentage, reaching 8.1%, it is very important. That is, customers' consumption habits are changing, a new group of customers has been formed and has the habit of using OFD services every day to order food.

**Table 4.1** Descriptive Statistic of Sample information (n=345)

Items	Frequency	Percentage (%)	Items	Frequency	Percentage (%)
Gender			Marital status		
Male	59	17.1	Single	184	53.3
Female	286	82.9	Married	161	46.7
Age			Monthly Income		
<18	0	0.0	Under US\$300	15	4.3
18-24	64	18.6	US\$301 – US\$500	32	9.3
25-35	239	69.3	US\$501– US\$700	150	43.5
35-45	35	10.1	US\$701 – US\$1000	99	28.7
>45	7	2.0	Above US\$1000	49	14.2
Education Level			Frequency of use		
High school and under	3	0.9	More than once a day	13	3.8
Diploma	64	18.5	Everyday	15	4.3
Bachelor's degree	234	67.8	5-6 times per week	40	11.6
Graduate's degree	44	12.8	3-4 times per week	134	38.9
Occupation			1-2 times per week	89	25.8
Student	17	4.9	2-3 times per month	36	10.4
Company employee	253	73.3	Once a month	9	2.6
Housewife	17	4.9	Less than once a month	9	2.6
Unemployment	2	0.6	The favorite online delivery system		
Self- employee	1	0.3	Website Restaurant	50	14.4
Retiree	54	15.7	Delivery apps	343	98.0
Others	1	0.3	Social Media	79	23.0

## 4.2. Regression analysis and LISREL

### 4.2.1. Regression analysis

Regression analysis was performed based on data collected from 345 respondents in Vietnam. Based on the structural model in Figure 1, we have 4 regression models.

In the first model, there are six independent variables (Price, Ease of use, Food Quality, Service Quality, Promotion, Privacy) and one dependent variable (Customer Satisfaction).

In the following models, there is one independent variable (Customer Satisfaction) and one dependent variable (in order is Repurchase, Positive Word of Mouth, Switching).

The results of the regression model are shown in detail in Table 4.2. The R<sup>2</sup> and adjusted R<sup>2</sup> results in the Model Summary Table indicate the goodness of fit index. The adjusted R<sup>2</sup> value of 0.77 means that the independent variables included in the regression analysis affect 77% of the variation of the dependent variable, the remaining amount of 23% is on account of unexplained factors and random errors.

Table 4.2 Regression Results

Model Summary				
Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	P-value
	0.37	0.78	0.77	0.00
Coefficients				
Model	Regression Summary for the independent variable Customer Satisfaction			
		Coefficient	T value	P-value
(Constant)		1.10	4.18	0.00
Price		-0.23	-3.91	0.00
Easy to use		0.04	0.72	0.47
Food quality		0.25	3.37	0.00
Service quality		0.31	6.372	0.00
Promotion		0.15	3.11	0.00
Privacy		0.13	2.39	0.02
Model	Regression Summary for the dependent variable Repurchase			
		Coefficient	T value	P-value
(Constant)		0.54	4.46	0.00
Customer satisfaction		0.84	26.70	0.00
Model	Regression Summary for the independent variable Positive Word of Mouth			
		Coefficient	T value	P-value
(Constant)		0.09	0.64	0.52
Customer satisfaction		0.94	25.59	0.00
Model	Regression Summary for the independent variable Switching			
		Coefficient	T value	P-value
(Constant)		6.40	40.70	0.00
Customer satisfaction		-1.06	-25.86	0.00

Based on the value of  $R^2 = 0.78$ , Adjusted  $R^2 = 0.77$  and  $P\text{-value} = 0.00$ , the regression equation is set up as follows:

Customer satisfaction	= 1.10	- 0.23Price	+ 0.04 Easy to use
	(4.18)	(-3.91)	(0.72)
	0.00	0.00	-0.47
	+ 0.25Food quality	+ 0.31Service quality	+ 0.15Promotion
	(3.37)	(6.37)	(3.11)
	0.00	0.00	0.00
	+ 0.13 Privacy		
	(2.39)		
	0.02		
Repurchase	= 0.54	+ 0.84 Customer satisfaction	
	(4.46)	(26.70)	
	(0.00)	(0.00)	
Positive WoM	= 0.09	+ 0.94Customer Satisfaction	
	(0.64)	(25.59)	
	(0.52)	(0.00)	
Switching	= 6.40	- 1.06Customer Satisfaction	
	(40.70)	(-25.86)	
	(0.00)	(0.00)	

After testing and evaluating the regression results, Price (Coefficient=-0.23, P-value=0.00), Food Quality (Coefficient=0.25, P-value=0.00), Service Quality (Coefficient=0.31, P-value=0.00), Promotion (Coefficient=0.15, P-value=0.00), Privacy (Coefficient=0.13, P-value=0.02), Repurchase (Coefficient=0.84, P-value=0.00), Positive Word of Mouth (Coefficient=0.94, P-value=0.00), Switching (Coefficient=-1.06, P-value=0.00) are Supported. The Ease of use (Coefficient=0.04, P-value=0.47) variable is Rejected.

Table 4.3 Hypotheses testing results

Hypotheses	Coefficient	P-value	Supported (Yes/No)
Price	-0.23	0.00	Yes
Ease of use	0.04	0.47	No
Food Quality	0.25	0.00	Yes
Service Quality	0.31	0.00	Yes
Promotion	0.15	0.00	Yes
Privacy	0.13	0.02	Yes
Repurchase	0.84	0.00	Yes
Positive Word of Mouth	0.94	0.00	Yes
Switching	-1.06	0.00	Yes

#### 4.2.2. LISREL analysis results

##### 4.2.2.1. Covariance matrix



It reveals the relationship between variables, thereby determining how closely the two variables are related. The covariance value ranges from  $-\infty$  to  $+\infty$ , reflecting a positive or negative relationship between two variables. If the values tend to move in the same direction, the relationship is positive, when they move in opposite directions, the relationship is negative.

Table 4.4 Covariance Matrix of Variables

	<b>CS</b>	<b>R</b>	<b>WOM</b>	<b>SW</b>	<b>P</b>	<b>E</b>	<b>FQ</b>	<b>SQ</b>	<b>PM</b>	<b>PV</b>
<b>CS</b>	0.62									
<b>REP</b>	0.52	0.64								
<b>WOM</b>	0.58	0.60	0.82							
<b>SW</b>	-0.65	-0.70	-0.78	1.05						
<b>PR</b>	-0.62	-0.63	-0.70	0.88	1.05					
<b>EU</b>	0.50	0.52	0.58	-0.67	-0.66	0.67				
<b>FQ</b>	0.55	0.56	0.63	-0.73	-0.70	0.61	0.69			
<b>SQ</b>	0.57	0.61	0.67	-0.75	-0.68	0.56	0.62	0.75		
<b>PM</b>	0.50	0.51	0.57	-0.66	-0.59	0.51	0.58	0.56	0.66	
<b>PV</b>	-0.57	-0.62	-0.67	0.87	0.95	-0.60	-0.66	-0.66	-0.57	0.99

\*CS-customer satisfaction, REP- Repurchase, WOM-word of mouth, PR-price, EU-easy of use, FQ-Food Quality, SQ-Service Quality, PM-Promotion, PV-Privacy

4.2.2.2. *Goodness of fit testing*

Hair, Black, Babin, & Anderson (2014) recommended  $\chi^2/df$  must be below 3; GFI, and AGFI must be above 0.9; RMSEA and RMR must be below 0.08 to be considered sufficient to assess model fit. But according to Table 4.4, all of the indexes did not meet the recommended standard.

Table 4.4 Result Goodness of fit of LISREL

$\chi^2/df$	P-Value	GFI	AGFI	RMSEA	SRMR
35.75	0.00	0.70	0.20	0.27	0.32

4.2.2.3. Hypothesis Testing

As mentioned, the research has 9 hypotheses that need to be tested. The results of estimating the relationship between research concepts show that only 5/6 factors affect satisfaction. Accordingly, Price (estimates value = -0.31, t = -3.91) is negative and significant influenced on Customer Satisfaction, Food Quality (estimates value = 0.25, t = 3.37), Service Quality (estimates value = 0.31, t = 6.31), Promotion (estimates value = 0.15, t = 3.11), Privacy (estimates value = -0.13, t = 2.39) are positive and significant influenced on Customer Satisfaction. Hence, H<sub>1</sub>, H<sub>3</sub>, H<sub>4</sub>, H<sub>5</sub>, H<sub>6</sub> are supported the model. Hypothesis H<sub>2</sub> about the Ease of use variable has positive but an insignificant impact on Customer Satisfaction, (estimate value = 0.04, t-value = 0.72). Consequently, H<sub>2</sub> has rejected this model. Finally, Customer Satisfaction is a positive and significant influence on Repurchase (estimate value = 0.21, t-value = 13.0) and Positive Word of Mouth (estimate value = 0.94, t-value = 25.40), also negative and significantly influenced on Switching (estimate value = -1.06, t-value = -25.47). As a result, H<sub>7</sub>, H<sub>8</sub>, and H<sub>9</sub> are supported the model.

The hypotheses are detailed in Figure 2 and Table 4.5.

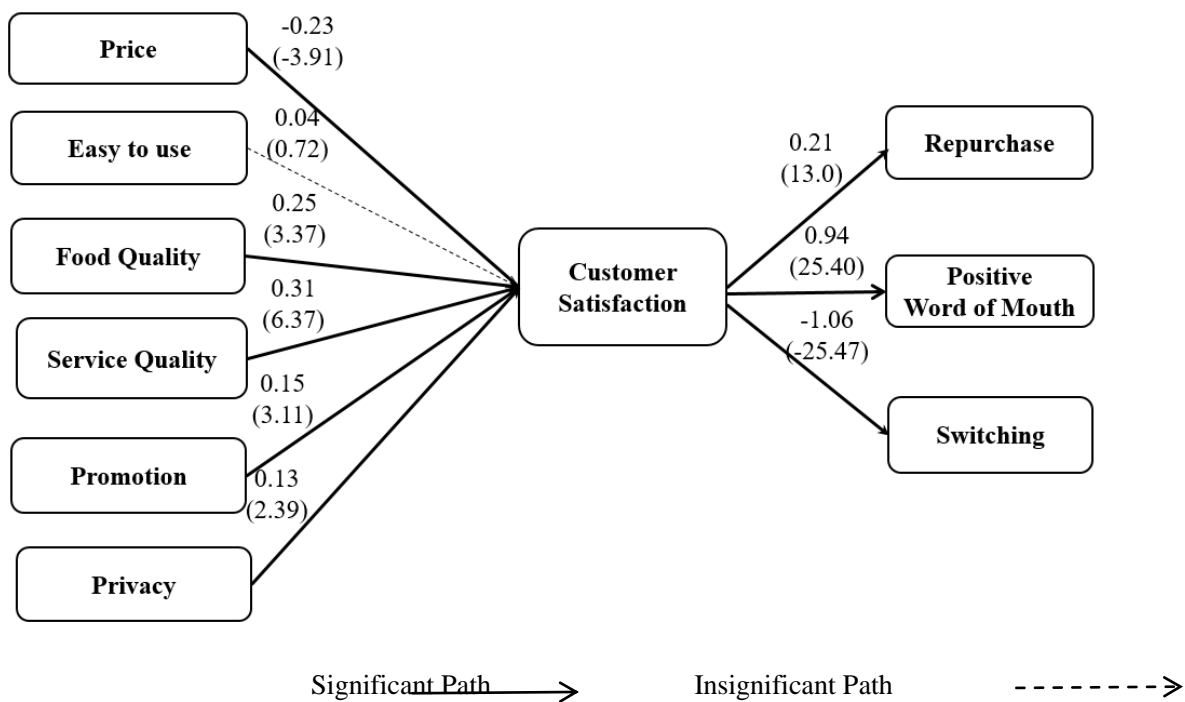


Figure 2: Result of LISREL Model

Table 4.5 Hypotheses testing by LISREL

Hypothesis	Estimates	T-value	Supported (Yes/No)
Price → Customer Satisfaction	-0.23	-3.91	Yes
Ease of use → Customer Satisfaction	0.04	0.72	No
Food Quality → Customer Satisfaction	0.25	3.37	Yes
Service Quality → Customer Satisfaction	0.31	6.37	Yes
Promotion → Customer Satisfaction	0.15	3.11	Yes
Privacy → Customer Satisfaction	0.13	2.39	Yes
Customer Satisfaction → Repurchase	0.21	13.00	Yes
Customer Satisfaction → Positive Word of Mouth	0.94	25.40	Yes
Customer Satisfaction → Switching	-1.06	-25.47	Yes

### 4.3. Comparison of the Regression analysis and LISREL model

In this research, the regression analysis showed the relationship between independent variables and a dependent variable using a linear model. The adjusted  $R^2$  and  $R^2$  are high (adjusted  $R^2 = 0.78$  and  $R^2 = 0.77$ ), demonstrating the validity of the structure and the fit of the model.

About the LISREL research model, the fit measures were  $\chi^2=35.75$ , P-value is 0.00 means that the model does not fit the significant data.  $GFI = 0.7 < 0.9$ ,  $AGFI = 0.2 < 0.8$ ,  $RMSEA = 0.27 > 0.05$ , lower validity and higher error therefore the model is not good of fit the data. Because the number of samples is not large ( $n = 345$ ) and the independence of the variables is ambiguous, the obtained results do not entirely indicate the relationship between the dependent variables and the independent variables.

Both methods give the same results,  $H_1$ ,  $H_3$ ,  $H_4$ ,  $H_5$ ,  $H_6$ ,  $H_7$ ,  $H_8$ ,  $H_9$  are supported and  $H_2$  is not supported. However, comparing the two models, we notice that the regression model is better than the LISREL model because of higher validity and smaller error. Therefore, this study is based on the regression model to make conclusions and some future research suggestions.

## 5. Conclusion

### 5.1 Discussion

The main objective of the study is to analyze the factors affecting customer satisfaction when using an online food delivery application in Vietnam. The results show that the majority of users are quite satisfied with the service they are using. Research results show that there are six factors affecting customer satisfaction when using online food delivery services. However, only five factors impact on customer satisfaction. In which, Service Quality has the most significant impact, followed by Food Quality, Price, Promotion, and Privacy. The results also show that customer Repurchase, Positive Word of Mouth, or Switching is also directly affected on satisfaction.

$H_1$  describes the factor Price negatively influences on Customer Satisfaction. This  $H_1$  is supported. Thus, price is always a big issue when making purchasing decisions of users. So companies should offer them reasonable, attractive, and low prices without sacrificing quality in order to increase customer satisfaction.

On the other hand,  $H_2$  assumes that ease of use has an effect on customer satisfaction when using OFD services. But the result did not support this hypothesis and is different from the result of Amin *et al.* (2014). This shows that customers do not have many difficulties when accessing and using OFD services today. All three systems: OFD applications, restaurant websites, and social networks are designed to be friendly, easy to understand, and easy to

use. It provides complete and accurate information about the food and makes it easy for the user to make the ordering and payment process.

Besides,  $H_3$  states that the Food Quality has positively influenced Customer Satisfaction. This hypothesis is supported. Ensuring the quality of food and drinks when reaching customers is closest to perfection compared to dining in the restaurant. Besides, clean packaging and accurate delivery will strengthen their trust, which is especially important for food products. The fact that OFD service has a diverse menu and allows users to choose from many dishes and locations will score points with customers.

Next,  $H_4$  declared that the Service Quality positively influences on Customer Satisfaction. Based on the results of the study, this hypothesis is also supported. In the fierce race of OFD services, the delivery speed directly affects the user experience. At the same time, the attitude of the delivery staff and customer care staff is an extremely important factor to retain long-term users. In addition, businesses also pay more attention to communication channels with OFD systems such as hotlines, call centers, or email responses to ensure the best customer support when having problems. Enhancing the customer experience by providing great service is also a way for companies in the consumer industry to increase customer satisfaction and loyalty levels, circumvent price competition and attract customers.

The  $H_5$  demonstrated promotion positively influences on customer satisfaction. This is completely consistent with previous theories and studies. Hence, this hypothesis is supported. Nowadays, promotion is the key to attracting and retaining customers. Businesses need to deploy many promotions, discount codes, and free shipping to compete with competitors in the market.

The results proofed that privacy positively influences customer satisfaction, then hypothesis  $H_6$  is supported. The OFD services also actively assist in improving customer satisfaction by ensuring privacy when using personal information to customize for each customer. For example, thanks to the feature of recording order history, the restaurant that users often order. Thereby, customers can easily re-order their favorite dishes at familiar restaurants.

Hypothesis  $H_7$  mentioned that Customer satisfaction positively influences Repurchase. It is consistent with the results of the study and previous literature, so this hypothesis is supported.

Enhancing customer experience is also a way for companies in the consumer industry to increase customer satisfaction and loyalty levels, circumvent price competition and attract customers.

The results also confirm Customer satisfaction positively influences Positive Word of Mouth and it is consistent with the research of Blodgett *et al.* (1997). Then, hypothesis  $H_8$  is supported. When customers feel satisfied with the quality of the product or service, it makes a positive reason to spread the good news about the service among family members, friends, and the community. In addition, using promotional codes or accumulating bonus points when customers refer this service to friends and relatives is a great way to enhance the effectiveness of positive word of mouth.

Finally, the data showed on the regression model support hypothesis  $H_9$ , customer satisfaction negatively influences switching. When customers feel unsatisfied with a service, the probability that customers choose another brand in the next purchase is very large.

#### **5.4 Theoretical implications**

Currently, there are not many studies on OFD services in Vietnam. Therefore, this study contributes to enriching resources related to customer satisfaction in the field of OFD in particular as well as the field of e-commerce in general. It also can provide useful insights for OFD services that are trying to expand their market and retain their existing customers.

#### **5.5 Practical implications**

In recent times, the number of people using OF services has increased rapidly and the market competition is intense than usual. Seizing the opportunities inherent in these changes will require a sophisticated understanding of markets and customers. For a successful business, improving customer satisfaction is the right and long-term strategy. The results of the study offer a more strategic and holistic approach to companies. It also helps provide a perspective for them to consider the factors that impact customer satisfaction. From there, they can visualize and redesign the customer experience to encourage repeat purchases or attract more and more customers through positive word of mouth and reduce the switching rate.

#### **5.6 Limitation and future research suggestions**

Firstly, the model in this study does not fully list the factors affecting customer satisfaction, so the correlation between the variables is not close and the results are not really objective and comprehensive.

Secondly, the research uses a convenient sampling method, so it is not generalizable to the study sample, the respondents are mainly company employees, concentrated in the urban areas and the sample size is not really large, so the conclusions are still quite subjective, which can distort the research results.

Therefore, future researches should increase the sample size and locations to make the data more authentic and reliable.

Furthermore, this study was based solely on an online survey, so future research may develop other ways of data collection. Both qualitative and quantitative research can be combined so that the results are rich and fully reflect the research topic.

## References

- Alalwan, A. A. (2020). Mobile food ordering apps: An empirical study of the factors affecting customer e-satisfaction and continued intention to reuse. *International Journal of Information Management*, 50(1), 28-44.
- Amin, M., Rezaei, S., & Abolghasemi, M. (2014). User satisfaction with mobile websites: the impact of perceived usefulness (PU), perceived ease of use (PEOU), and trust. *Nankai Business Review International*, 5(3), 258 - 274.
- Annaraud, K. & Berezina, K. (2020). Predicting satisfaction and intentions to use online food delivery: What really makes a difference? *Journal of Foodservice Business Research*, 23(1), 1-19.
- Belanger, F., Hiller, J., & Smith, W. (2002). Trustworthiness in electronic commerce: the role of privacy, security, and site attributes. *The Journal of Strategic Information Systems*, 11(3-4), 245-270.
- Blodgett, J., Hill, D.J., & Tax, S.S. (1997). The effects of distributive, procedural, and interactional justice on post complaint behavior. *Journal of Retailing*, 73(2), 185-210.
- Bodea, M. & Ferguson, T. (2012). *Pricing Segmentation and Analytics*. New York: Business Expert Press.
- Devaraj, S., Fan, M. & Kohli, R. (2002). Antecedents of B2C Channel Satisfaction and Preference: Validating e-Commerce Metrics. *Information Systems Research*, 13(3), 316-333.
- Du, Y., Yin, H., Wang, C. & Li, C. (2020). Visual analysis of customer switching behavior pattern mining for takeout service. *Journal of Computer Language*, 57(1-2), 100946.
- East, R., Wright, M. & Vanhuele, M. (2013). *Consumer Behaviour: Applications in Marketing* (2nd ed.). Los Angeles: Sage Publications.
- Foss, B. & Stone, M. (2002). *CRM in Financial Services*. London: Kogan Page.
- Hair, J. F., Black, W. C., Babin, B. J. & Anderson, R. E. (2014). *Multivariate data analysis* (7th ed.). New Jersey: Person Education Limited.
- Hawkins, D. I. & Mothersbaugh, D. L. (2010). *Consumer behavior: Building marketing strategy* (12th ed.). Boston: McGraw-Hill Irwin.
- Imarcgroup.com. (2020). Vietnam Online Food Delivery Market: Industry Trends, Share, Size, Growth, Opportunity and Forecast 2021-2026. [Online] Available: <https://www.imarcgroup.com/vietnam-online-food-delivery-market>
- Kedah, Z., Ismail, Y., Ahasanul, A. K. M. & Ahmed, S. (2015). Key Success Factors of Online Food Ordering Services: An Empirical Study. *Malaysian Management Review*, 50(2), 19-36.
- Kim, H. W., Xu, Y. & Gupta, S. (2012). Which is more important in internet shopping, perceived price or trust? *Electronic Commerce Research and Applications*, 11(3), 2012.
- Kotler, P. (1999). *Kotler on marketing: how to create, win, and dominate markets*. New York: Free Press.
- Lau, T. & David, N. (2019). Online Food Delivery Services: Making Food Delivery the New Normal. *Journal of Marketing Advances and Practices*, 1(1), 62-77.
- Manzie, R., L. (2003). Why customers come back: How to create lasting customer loyalty. Red Wheel/Weiser.
- Namkung, Y. & Jang, S. (2007). Does food quality really matter in restaurants? Its impact on customer satisfaction and behavioral intentions. *Journal of Hospitality & Tourism Research*, 31(3), 387-409.
- Peri, C. (2006). The universe of food quality. *Food Quality and Preference*, 17 (1-2), 3-8.
- Ray, A., Dhir, A., Bala, P., K., & Kaur, P. (2019). Why do people use food delivery apps (FDA)? A uses and gratification theory perspective. *Journal of Retailing and Consumer Services*, 51, 221-230.
- Statista.com. (2021). Revenue of online food delivery in Vietnam from 2017 to 2024. [Online] Available: <https://www.statista.com/forecasts/1230463/revenue-online-food-delivery-vietnam> (July 5, 2021)
- Szwarc, P. (2005). *Researching customer satisfaction & loyalty: How to find out what people really think*. London: Kogan Page.
- Yi, Y. & La, S. (2004). What influences the relationship between customer satisfaction and repurchase intention? Investigating the effects of adjusted expectations and customer loyalty. *Psychology and Marketing*, 21(5), 351-373.
- Yu, T. K. & Wu, G. S. (2007). Determinants of internet shopping behavior: An application of reasoned behavior theory. *International Journal of Management*, 24(4), 744-762.
- Zhang, L. & Tang, S. (2010). An Empirical Study on Impact of Sales Promotion on Brand Loyalty of Service Enterprise. *2010 International Conference on Management and Service Science*, 1-3.