Factors Affecting E-Commerce Customer Satisfaction in Hanoi, Vietnam

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Abstract

The escalating ubiquity and cost-effectiveness of internet facilities have precipitated a notable surge in the adoption of e-commerce among Vietnamese inhabitants, particularly those residing in urban areas. This research endeavours to enhance comprehension of factors affecting e-commerce customer satisfaction in Hanoi, Vietnam. A quantitative survey of this research was conducted in which online questionnaires were distributed to 382 respondents through social media. The amassed data underwent meticulous analysis utilizing Microsoft Excel. The findings of this investigation underscore that information quality, system quality, service quality and price simultaneously influence e-commerce customer satisfaction.

Keywords: factors, e-commerce customers, satisfaction

1. Introduction

Internet usage has experienced significant growth in recent years, emerging as a prevalent means for disseminating and exchanging information, services, and goods. The utilization of the Internet has surged exponentially and has become a mainstream tool for delivering and trading information, services, and goods (Albarq, 2006) [1]. According to Perez (2017) [2], "This electronic environment, or cyberspace, is an area where not only traditional stakeholders such as suppliers, business partners, consumers, and competitors operate, but also an environment in which various alternative products begin to emerge and new companies come into existence with ease and unprecedented speed, like Alibaba, Uber, Airbnb, and NuBank." Moreover, internet technologies establish marketplaces for consumers to purchase products or services from online websites, replacing traditional market channels such as department stores (Zhuang & Babin, 2015) [3].

E-commerce stands out as one of the rapidly growing industries in Vietnam. Since its introduction to the market in 2000, this industry has experienced tremendous growth in the country. Numerous advantages contribute to its success, attracting the attention of both companies and customers, namely time-saving, accessibility, cost-effectiveness, enhanced company efficiency, and a wide range of options (Taher, 2021) [4]. Due to the benefits of online shopping, people tend to prefer making purchases online in this day and age.

Prioritizing customer satisfaction is crucial. Research indicates that satisfied customers are more likely to revisit a website and make repeat purchases, leading to increased revenue and profitability. Harvard Business Review (2014) [5] found that increasing customer retention rates by just 5% can boost profits by 25% to 95%. Additionally, satisfied customers are more likely to recommend a website to others, contributing to potential new customers and heightened brand awareness. Therefore, it is essential for website owners to focus on providing a positive user experience and addressing any customer concerns to maintain high levels of customer satisfaction.

Numerous studies explore the factors contributing to shoppers' satisfaction (Nicholas Wilson and Regina Christella, 2019 [6]; Chun-Chun Lin, Hsueh-Ying Wu, and Yong-Fu Chang, 2010 [7]; Hsiu-Fen Lin, 2007 [8]; Rashed Al Karim, 2013 [9]; Muhammad Masyhuri, 2022; …) [10]. However, empirical studies on these factors in the context of E-commerce in Hanoi, Vietnam, are limited. Therefore, the authors conducted research entitled "Factors Affecting E-commerce Customer Satisfaction in Hanoi, Vietnam."

The main objectives of the study include:

(i) investigating factors which affect E-commerce customer satisfaction in Hanoi, Vietnam

(ii) proposing suggestions to enhance E-commerce customers' satisfaction.

2. Research Methodology

2.1 Research sample

In order to gather data for assessing the measurement, a questionnaire survey has been devised for this research. The measurement items in this study were adapted from previously established international and domestic studies. A pilot test involving 20 samples was conducted to validate the model and the questionnaire's feasibility. Pilot tests are essential for identifying and rectifying errors before the official survey is administered. The questionnaire was translated into Vietnamese to ensure a comprehensive understanding by the respondents. A

total of four hundred surveys were distributed and subsequently returned. However, 18 questionnaires were disqualified due to incomplete information, leaving 382 valid responses for further analysis.

2.2 Data collection method
Primary data: To acquire primary data, the authors opted for online questionnaires. The designed questionnaires comprise two main sections:
(i) Identifying personal information of e-commerce customers (including gender, age, occupation, income, etc.)
(ii) Analysing factors influencing e-commerce customer satisfaction in Ha Noi, Viet Nam. The questionnaire was structured using a five-point Likert-type scale, where 1 indicates "strongly disagree," 2 for "disagree," 3 for "neutral," 4 for "agree," and 5 for "strongly agree."

Secondary data: Obtained from credible sources like newspapers, journals, articles, printed books, and research, … Basing on the findings from previous international and domestic studies, the authors included a number of factors affecting e-commerce customer satisfaction in Hanoi namely information quality, system quality, service quality, and price

3. Results & Discussion
3.1 Customers' Information
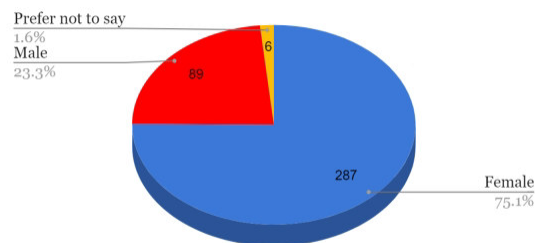*3.1.1 Customers' Gender*

Figure 2. Customers' Gender

The pie chart above displayed the e-commerce customer's sex. It can be seen from the pie chart that females played an active role in the online shopping industry. Females accounted for over 75% of the chart. It was followed by the male with over 23%. Only 1,6% respectfully refused to answer. As was shown from the pie chart, the female customers' needs for shopping seemed to be greater than others.
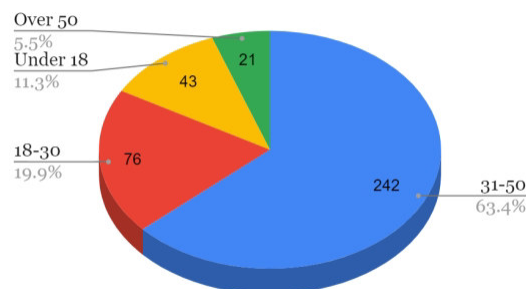*3.1.2 Customers' Age*

Figure 3. Customers' Age

The chart above showed the age of the e-commerce customers. The most notable feature in the chart was the need for the age range from 31-50 years old. It was followed by 18-to-30 years old adults and adolescents with only 19.9% and 11.3% of the pie chart respectively. The smallest proportion in the chart was the elderly with only 5.5%. It was easy to comprehend that the elderly were the least one because it was more difficult for them to get used to technological advancements.
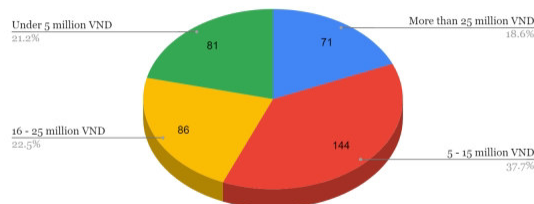
3.1.3 Customers' Monthly Income

Figure 4. Customers' Monthly Income

The pie chart demonstrated the monthly salary made by the e-commerce customers. By far, online buyers who get paid from 5 to 15 million VND were the most popular, which accounted for nearly four tenths of the total customers, compared to the proportion of people who gained more than 25 million VND which only made up for nearly 20 percent. The percentage of online consumers who earned less than 5 million VND and from 16 to 25 million VND were approximately similar, with the percentage of 21.2% and 22.5% respectively.

3.1.4 Customers' Occupation

Table 1. Customers' Occupation		
Job	**Quantity**	**Percentage**
Government officer	112	29.32%
Office worker	124	32.46%
Student	76	19.90%
Homemaker	4	1.05%
Freelancer	18	4.71%
Entrepreneur	43	11.26%
Retired people	3	0.79%
Others	2	0.52%
Total	**382**	**100,00%**

The customers' characteristics of occupation were displayed in the chart above. One outstanding feature of the chart was that a high 32.46% of the customers surveyed are office workers. Next come Government officers and students with roughly 29% and 20% respectively. The proportion of entrepreneurs was almost 9% lower than that of the students, while Freelancers and homemakers pale in comparison with others. An analogy could be drawn between Retired people and other jobs, as their percentage accounted for a little 0.79% and 0.52%.

3.1.5 Frequency of Shopping Online in the last 3 months
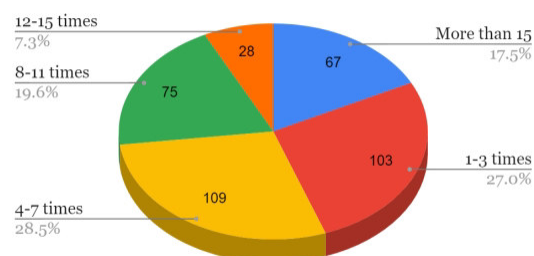
Figure 5. Frequency of Shopping Online in the last 3 months

The figure illustrated how often customers bought merchandise from online platforms in 3 months' time. It was clear that most users have shopped for products from 1 to 7 times accounting for more than a half of the total users, while the proportion of online shoppers buying products from 12 to 15 times was only 7.3%. 19.6% was the percentage of consumers whose online shopping frequency was between 8-11 times, and purchasers buying online goods made up for 17.5%.

3.1.6 Customers' Favorite Shopping Platforms

Table 2. Customers' Favorite Shopping Platforms		
Platforms	**Number of Users**	**Percentage**
shopee.vn	338	88.48%
lazada.vn	91	23.82%
tiki.vn	67	17.54%
dienmayxanh.com	25	6.54%
adayroi.com	5	1.31%
sendo.vn	15	3.93%
fptshop.com.vn	10	2.62%
Facebook	17	4.45%
hotdeal.vn	4	1.05%
Grabfood	4	1.05%
TikTok Shop	17	4.45%
lotte.vn	7	1.83%

The table above presented a clear illustration of platforms the participants preferred when it came to shopping online. Shopee.vn headed the list with an overwhelming number 338 users, approximately 56% of the customers surveyed. Then, next up were lazada.vn and tiki.vn with 23.82% and 17.54% of the users respectively. Other platforms, for instance, dienmayxanh.com, sendo.vn and Facebook accounted for 9.5% of the population. However, websites like fptshop.com.vn, adayroi.com, lotte.vn, hotdeal.vn and Grabfood came last with relatively low numbers of users.

3.1.7 Products bought in the last 3 months

Table 3. Products bought in the last 3 months		
Types	**Number of Buyers**	**Percentage**
Shoes	154	40.31%
Clothing	250	65.45%
Bags & Accessories	107	28.01%
Food & Beverages	155	40.58%
Cosmetics & body care	121	31.68%
Books & School things	119	31.15%
Drugstore & health products	41	10.73%
Electronics	105	27.49%
Baby things	10	2.62%
Houseware	18	4.71%
Plants & Flowers	2	0.52%

The table provided information about what customers bought over the last three months. It was noticeable that people tended to purchase fashion products when shopping online. Clothing topped the whole list with 65.45% of the population surveyed. Next up was footwears, foods and beverages with about 40%. Then, around 30% was the case for cosmetics & body care, school supplies, accessories and electronics. Lastly, health products, houseware accounted for 10.73% and baby things and flowers only took 10.73% & 0.52% of the proportion respectively.

3.2 Factors Affecting E-commerce Customers' Satisfaction in Hanoi, Vietnam
3.2.1 Agreement Degree of Information Quality

No.	Statements	1 - Strongly Disagree	2- Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Mean
1	The information is understandable.	2.36%	1.57%	20.68%	62.83%	12.57%	3.82
2	The information is accurate.	4.45%	14.66%	41.62%	31.15%	8.12%	3.24
3	The information is trustworthy.	4.45%	17.02%	45.81%	26.70%	6.02%	3.13
4	The information is informative.	2.36%	5.24%	27.23%	53.93%	11.26%	3.66
5	The information is valuable.	3.14%	7.33%	39.01%	42.67%	7.85%	3.45

Table 4. Agreement Degree of Information Quality

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The table showed the data on customers' satisfaction with information quality when they are shopping online. In general, most customers were satisfied with the quality of the information. The majority of the customers were satisfied with the information quality of e-commerce platforms because it is understandable, informative, and valuable. 62.83%, 53.93%, and 42.67% voted for "agree" and 12.57 %, 11.22% and 7.85% voted for "strongly agree" respectively. However, 41.62% & 45.81% had no idea about the accuracy and trustworthiness of the provided information on the platforms.

The table also showed the mean value of agreement on Information Quality related elements: Understandability, Accuracy, Trustworthiness, Informativeness and Value. The way online products were categorized is highly valued by customers, reflecting in 3.66 average points. Similarly, Informativeness followed by Value also scored above average in the survey. Alarmingly, consumers did not speak highly of the Accuracy and Trustworthiness of information provided on online platforms, resulting in merely above average scores of 3.24 and 3.13 respectively. Hence, the platforms need to raise the level of reliability of information provided on websites to improve customer satisfaction. It is of great importance to verify product descriptions offered by shop owners. should re-filter and shorten product descriptions to enhance customers' "trust".

3.2.2 Agreement Degree of System Quality

No.	Statements	1 - Strongly Disagree	2- Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Mean
6	The platforms are quickly responsive to my request.	1.83%	2.36%	17.02%	68.06%	10.73%	3.84
7	The platforms quickly load all the texts and images.	1.57%	3.14%	17.02%	67.02%	11.26%	3.83
8	The platforms are well organized.	1.57%	2.36%	22.25%	62.57%	11.26%	3.80
9	The platforms are easy to use.	1.57%	1.57%	16.23%	68.06%	12.57%	3.88
10	The platforms are appealing.	1.57%	1.57%	24.87%	60.21%	11.78%	3.79
11	The platforms are easy to go back and forth.	1.57%	2.62%	18.06%	64.66%	13.09%	3.85
12	It takes only a few clicks to locate information.	2.09%	2.09%	17.02%	66.23%	12.57%	3.85

Table 5. Agreement Degree of System Quality

The extent to which e-commerce customers agree with the quality of the system was illustrated in the table above. Overall, the majority of the customers were satisfied with the system quality. 60.21% to 68.06% of the customers agreed with all the variables of the factor "system quality" while more than 10% strongly agreed with all the variables. The customers who strongly disagree and disagree, nevertheless, paled in comparison with a little 1.83% to 2.09%. The percentage of customers who chose "neutral" accounted for between 17.02 to 24.78%. The percentage of the customers who disagree and strongly disagree with the system quality varied between just 1.57% and 2.67%.

The table also indicated the mean value of agreement degree of System quality. All the seven questions graded from 3.79 to 3.88. Therefore, it seems that the platforms were generally considered to work efficiently. It is highly recommended that website owners should continue to improve their system quality to get higher customer satisfaction.

3.2.3 Agreement Degree of Service Quality

No.	Statements	1 - Strongly Disagree	2- Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Mean
13	The products I bought online match my expectations.	2.62%	19.16%	48.95%	23.77%	5.50%	3.46
14	The products I bought were delivered on time.	1.83%	14.19%	21.20%	54.14%	8.64%	3.74
15	The orders are confirmed quickly.	1.57%	9.31%	17.80%	60.06%	11.26%	3.86
16	Delivery fees are reasonable.	2.62%	45.95%	36.51%	4.97%	9.95%	3.70
17	The products are delivered without damage.	2.09%	39.63%	44.40%	4.97%	8.91%	3.73
18	The staff are always willing to support customers.	2.62%	18.64%	48.69%	21.94%	8.11%	3.51
19	It is easy to contact the platforms.	2.88%	31.94%	46.07%	11.52%	7.59%	3.44
20	Warranty services are reasonable.	3.40%	40.58%	38.22%	10.47%	7.33%	3.38
21	Complaints about products returning are solved quickly.	4.97%	44.58%	30.29%	12.83%	7.33%	3.32

Table 6. Agreement Degree of Service Quality

The table illustrated the degree of convergence on service quality. In general, customers tend to prefer to receive their products quickly. It could be seen clearly that expectations of the orders, supportive employees, platforms' availability and products' conditions voted "neutral" by almost half of the purchasers (48.95%, 48.69%, 46.07% and 44.40% respectively), followed by warranty services, delivery fees, problem solving. Also, nearly a half of the customers were not happy with delivery fees, problem solving and warranty services. However, 54.14% and 60.06% of the customers were satisfied with on - time delivery and quick order confirmation. To sum up, there seem to be several problems with expectations of the orders, supportive employees, platforms' availability and products' conditions, warranty services, delivery fees, and problem solving.

The table above presented the mean value of nine Service quality assessments. In general, service provided by online platforms in Hanoi is perceived as satisfactory, but not exceptionally good. Delivery service and order confirmation were highly appreciated by online customers. Overall, the platforms performed well in building their Service Quality. However, it could be seen clearly that there is still room for improvement in their Service Quality.

It is necessary to establish a random pre- inspection procedure on product quality before publishing products to customers. This could be done by staff playing a customer role to come to the partner stores and buy any product to guarantee the quality of products. Another way was to systematically filter out and verify shops which were given significant bad comments and feedback from previous clients.

3.2.4 Agreement Degree of Price

No.	Statements	1 - Strongly Disagree	2- Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Mean
22	The product prices match the product qualities.	2.62%	58.12%	26.18%	5.23%	7.5%	3.63
23	The product prices are suitable for different income levels.	1.57%	62.57%	22.25%	2.35%	11.26%	3.81
24	The product prices are competitive among different e-commerce platforms.	2.10%	19.63%	65.71%	1.83%	10.73%	3.80
25	There are many great promotions.	1.57%	1.57%	16.23%	68.06%	12.57%	3.88

Table 7. Agreement Degree of Price

The table above reveals the customers' attitude towards the price of the product. Overall, the majority of customers (58.12%, and 62.57% respectively) are opposed to the matching of product price, quality and the suitability of different income groups. Probably, the income levels of shoppers and the qualities compared to the description and the review on online platforms are not proportionate with the price that the buyers have to pay. Most of the online customers choose "neutral" for seven-tenths of the users agree that online shops have provided them with many promotions while buying merchandise, which can be one of the effective ways to attract their loyal customers. It can be seen clearly from the table that customers are generally satisfied with the prices of online products. However, it is of great importance to pay more attention to adjusting the prices and providing a wide array of products for different income groups. Vietnamese clients are price-sensitive. To get the best part from this price-driven population, the price should be competitive. This could be reflected through seasonal sales, regular promotions, and discounts on products or free delivery service. Not only the price reduction but also consistency with the final bill should be shown. Survey attendees reported being shown a free delivery deal, applied for multi- buying and ended up with a delivery fee added to the final price. These misleading marketing tools are sometimes intentionally exercised by the buyers or e-commerce providers. Little do they know, these methods fuel anger and encourage clients to leave the website for good.

3.2.5 Customers' Satisfaction to E-commerce

No.	Statements	1 - Strongly Disagree	2- Disagree	3 - Neutral	4 - Agree	5 - Strongly Agree	Mean
26	I will continue shopping online in the near future.	1.83%	2.36%	17.02%	68.06%	10.73%	3.84
27	I will recommend the platforms to my friends and my family.	1.57%	3.14%	17.02%	67.02%	11.26%	3.83
28	When I need to purchase, shopping online will be my first selection.	1.57%	2.36%	22.25%	62.57%	11.26%	3.80

Table 8. Customer's Satisfaction to E-commerce

The table above indicates the overall satisfaction of the e-commerce customers in Hanoi, Vietnam. Generally, it can be seen from the table that most customers are content with E-commerce shopping. It is followed by the "neutral" customers who accounted for between 17.02% and 22.25% while just a small percentage of customers are dissatisfied with e-commerce. In conclusion, the majority of the customers are pleased with the e-commerce industry in Hanoi, Vietnam.

The table also shows the mean value of agreement degree on customer satisfaction. In general, participants are confident that they will make purchases online in the near future. Moreover, customers are willing to mention them to friends. The platforms are always their first choice.

3.3 Discussion

From the above findings, it is concluded that the result is highly supported by the research of Noronha and Rao (2017) [11] as well as Lee and Lin (2005) [12], who found that information provided by online stores has a profound impact on customer satisfaction. Well-designed websites will decrease the time searching for

information, and reduce discrepancy risks (Luo, Ba & Zhang, 2012) [13]. The higher the information quality, the higher the likelihood that it will increase customer satisfaction (Schwake, et al., 2015) [14]. By providing appropriate information on a website, it will encourage customers to purchase online (Kuo & Chen, 2011) [15].

Regarding the system quality, the findings are in line with Ling, Fern, Boon & Huat (2016) [16] and Ahmad & Al- Zu'bi (2011) [17] who indicated that the platforms should contain a well-structured screen layout and design, intelligible graphics and vibrant colour alignment.

Concerning service quality, online retailers should constantly deliver the right products (reliable delivery) and package the products by standard, including the quality of being on time as well as being undamaged until it reaches the customers (Handoko, 2016). [18]

4. Conclusion

This study attempts to determine the factors affecting e-commerce customers' satisfaction in Hanoi, Vietnam. Primarily based on data collected from 382 respondents, this research shows that informatics, system, service and price quality simultaneously influence customers' pleasure while shopping online in Hanoi, Vietnam.

In future studies, the respondents who live in rural regions will be considered. This present study is limited only to four factors which influence e-commerce customer satisfaction. It is suggested that other influential factors may also be included.

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