

FACTORS INFLUENCE THE CONSUMER'S ONLINE SHOPPING BEHAVIOR ON COSMETIC AT PIZU LTD COMPANY

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SUMMARY

The purpose of this research is to investigate into what factors influence the consumer's online shopping behavior on cosmetic. Nowadays, cosmetic are becoming more and more popular with so many brands, products in the markets, there has been a fierce competition among different cosmetic producers. Consumers have so many choices from luxury to common brands. Thanks to the growing convenience of e-commerce, consumers are now spared from store visiting and offline transaction... This study has been conducted based on the structured survey of 280 customers of Pizu Ltd Company, a 5 year-old cosmetic e-commerce business. The study results reveal that there are six factors that influence consumer's behavior including: (1) Product; (2) Convenience; (3) Delivery; (4) Service and infrastructure; (5) Consumer attitude; (6) Shopping attitude, while financial and return policies are not clearly linked to consumer's behavior. The six factors provide a useful initial framework for Pizu company to assess its current strategy and tactics. The research also suggests several approaches which Pizu company can undertake to better influence consumer's behavior, thus, increasing its own online shopping revenue. These approaches includes increasing the quality of products, provide more product's visuals and information on the website. Increasing the quality of service and infrastructure; quality of product; design website display more sightly, create photos and informations about product more abundantly.

Keywords: Buying behavior, consumer, cosmetics, EFA, Pizu.

1. INTRODUCTION

Nowadays, the internet and technology information has increasingly developed. E-commerce became individual and bussiness's optimal choice to expand business, open wide the their relationships, increase the their market share, helping them seeking partner in and outland (Al-Jabary, M.A et al., 2012).

In recent years, online shopping has become the popular method and developed rapidly in the world (Wu, L. et al., 2011). Its popularity shows in in the amount of the rate of consumer using this method and the revenue of retail online shopping are constanly increasing (Ozen, H., & Engizek, N., 2014).

Catching that trend, Pizu Ltd Company was established and running business in e-commerce as a buying and selling on social network. By applying online selling the company achieved success in market share, establishing the brand and gain reputation.

However, the company is not yet established. Finding and meeting customers' need still play a crucial role in developing the business so that attracting customer needs is difficult. Therefore, the company need to do

more to find out trend and customer's demand, bring pleasure to customer and make the business effectively.

Research on online consumer's behavior might reveal the factors affecting consumer behaviors, which might shed light to hidden problems and propose suitable solutions to complete customer services and imply customer support service. Hence, attractting customer in and outland would be more effective.

2. RESEARCH METHODOLOGY

2.1. Content of research

- Establish a framework to evaluate the factors influence the online buying behavior on cosmetic at Pizu Ltd Company;

- Determine the main factors that influence the online buying behavior on cosmetic at Pizu Ltd Company;

- Propose solutions to tackle consumer behavior and increase e-commerce revenue of Pizu Ltd Company.

2.2. Research methodology

2.2.1. Literature review

To identify the factors influence the consumer's online buying behavior, the authors

based on some theories and studies, one of them is the Theory of Planned Behavior (Ajzen, 1991). In his study, Ajzen proposed several factors including consumers's attitude, intention to buy, personality, perceived behavioral adjustment, technology improvement, risk, service's quality and customers's fearful.

According to Mohammad Hossein Moshref Javadi (2012), the advantages of online buying service are variety of products, buying comfortably, the website able to satisfy customer's needs, clear price and trustable. Beside, the study also identify three categories of risk that could effect the customers' buying decision include financial risk, product risk and time risk.

Nguyen Thi Bao Chau, Le Nguyen Xuan Dao (2014), Analyzined the factors which influence consumer's online buying behavior at Can Tho City. The result show that there are 8 categories of factors including: risk in financial and product, diversity of product, faith, website's responsiveness, risk in time, convinience, comfortable and price which influence consumer's behavior.

Based on these studies, the authors propose the research framework include 7 factors: Convinience, Shopping attitude, Delivery, Finance, Infrastructure, Return policy, Product, Peer reviews, to identify which affect the consumer's behavior when buying cosmetic at Pizu Ltd Company.

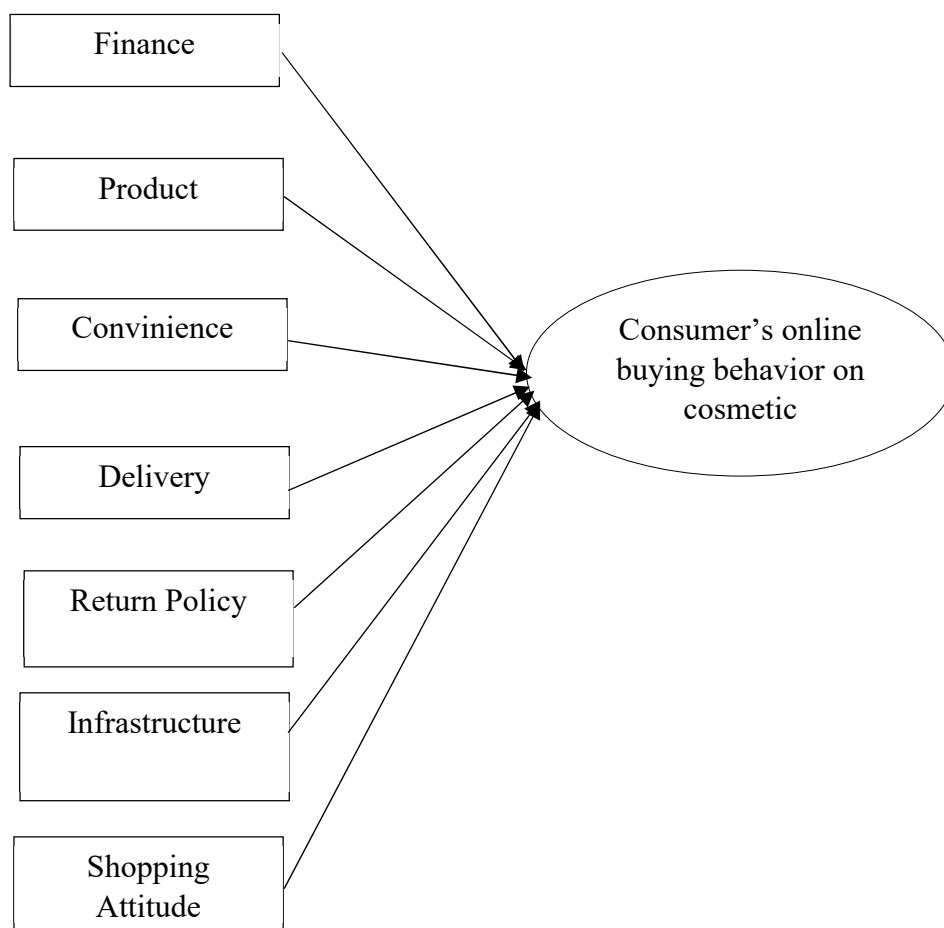


Figure 1. Conceptual model of the study

2.2.2. Data collection methods

- Sample size: follow the guideline of Bollen (1989) the minimum size of sample is 5 observations per estimated parameter, in this research the size of sample is 10 observations

per estimated parameter and there are 28 parameters need to estimated. So that the sample size necessary is 280 observations in total. In this study, 300 questionnaires were sent to customers of Pizu Ltd Company. The

number of returned questionnaires was 290. Out of these, 280 answers were qualified (Hoang Trong and Chu Nguyen Mong Ngoc, 2008).

- Sampling method: non probability sampling technique was used to collect data involved consumer buying behavior online (Dinh Phi Ho, 2011). The respondents are customers who have been bought or are recently using online buying service of Pizu Ltd Company.

2.2.2. Data analysis method

Based on overview reseach, internal and external research, the researcher imply and complete the survey appropriately researching relistic. In this research, paticipants had to indicate their level of agreement with 28 evaluation statement divided to 8 group about writing on a Likert scale with 5 levels (ranging from strongly agree to strongly disagree) that influence online buying behavior (Detail on Table 1) (Ha Ngoc Thang and Nguyen Thanh Do, 2016).

Table 1. Factor scales influence the consumer’s online buying behavior on cosmetic at Pizu Company

No	Scale	Code
1	Finance	TC
1.1	I feel the detail of my credit card may be compromised and taken advantage of by someone else	TC1
1.2	I could be charged higher when shopping online	TC2
1.3	I feel my private information could be leaked to the third partner	TC3
2	Product	SP
2.1	I may not receive the item that I offerd	SP1
2.2	I may receive the item out of date	SP2
2.3	I find it difficult to evaluate quality product on internet	SP3
3	Convenience	TT
3.1	I do not have enough patience to wait for the product to reach my hand in online shopping	TT1
3.2	I can’t test the product by eyes, by hands or test the product directly	TT2
3.3	I find it difficult to resolve disputes when shopping online	TT3
3.4	Canceling an order online is not easy	TT4
3.5	I may have difficulty in returning purchased goods online	TT5
4	Delivery	PH
4.1	I may not receive the product I ordered online because of a fraudulent seller	PH1
4.2	I do not shop online because I do not trust carriers (they can change or spoil the product that I order)	PH2
4.3	The product that I ordered may be lost during shipping	PH3
5	Return policy	HT
5.1	I do not shop online without a free return or exchange service	HT1
5.2	I shop online only when I can return the product without any cumbersome and binding conditions.	HT2
5.3	I do not shop online without a commitment to return the money if the product is not up to order	HT3
6	Services and Infrastructure	CSHT
6.1	I feel no fear of buying cosmetics online if there is a strict electronic transaction law to handle fraud and hackers.	CSHT1
6.2	Site loading time is slow	CSHT2
6.3	The dangerous code (virus, trojan...) can harm my computer	CSHT3

No	Scale	Code
7	Consumer attitude	TD
7.1	Use the Internet in buying cosmetics online easily	TD1
7.2	Buying cosmetics online is an enjoyable experience	TD2
7.3	I have been using the Internet as a buying channel	TD3
7.4	I like to go buy cosmetics directly with family members or friends in the store	TD4
7.5	The opinions of friends are extremely important when I intend to buy cosmetics	TD5
8	Online cosmetic buying behavior	HV
8.1	I will choose to buy cosmetics online when the occasion	HV1
8.2	I will buy cosmetics online whenever I intend to go shopping	HV2
8.3	I will buy cosmetics online instead of going to the store	HV3

In this research, IBM SPSS 20 statistical software program was used to analyse descriptive statistics, EFA was used to identify the factors influencing online buying consumer's behavior of cosmetic at Pizu Ltd company. The results of EFA are the basis to propose solutions to enhance selling ability of Pizu Ltd Company.

3. RESULTS AND DISCUSSION

3.1. Current status of business result at Pizu Ltd Company

The Company recently has over 300 agents located in 63 provinces and cities inland, 1 agent abroad. Beside, the distribution system also has thousands of wholesale buyers resellers sell products online in social network such as Facebook or Zalo.

Table 2. Revenue of Pizu Ltd Company since 2017 to 2019

No.	Revenue	2017	2018	2019	Average Growth Rate (%)
1	The North Vietnam	74 499.98	107 051.92	115 746.03	124.65
2	The Central Vietnam	29 134.57	38 614.16	49 459.50	130.29
3	The South Vietnam	12 496.48	23 650.50	25 381.86	142.52
4	Abroad Agent	1 834.15	2 940.79	3 098.10	129.97
	Total	117 965.18	172 257.36	193.685.49	128.14

The revenue of the Company tends to increase over the years, the average growth rate is 128.14%. The revenue in Northern is highest, and followed by the Central and the South.

The revenue is concentrated on big cities and provinces such as Ha Noi, Ho Chi Minh and Da Nang, which has large and dense population, high demand, high purchase power create favorable conditions to expand cosmetic business.

The company's product are gradually developing and expanding consumption markets such as agents in the provinces of Bac Ninh, Dong Nai, Hai Duong, Hai Phong, Hue and Lam Dong.

The rest are agents with the lowest revenue

in the undeveloped provinces, the provinces in remote areas with average economic conditions and underdeveloped so the demand is low and it is difficult to sell for example: Cao Bang, Ben Tre, Can Tho, Ha Tinh...

3.2. Results of EFA

3.2.1. Reliability

A reliability test was conducted to see if the item in the questionnaire had been rightfully operationalize

Using the result of 280 observations, Cronbach Alpha test reveals that all the 8 groups of variables are statistically significant, the test statistic value is greater than the critical value of 0.6. The result reported in Table 3.

Table 3. The significance of the variables

No	Scale	Variable	Cronbach's Alpha
1	TC	TC1, TC2, TC3	0.806
2	SP	SP1, SP2, SP3	0.779
3	TT	TT1, TT2, TT3, TT4, TT5	0.874
4	PH	PH1, PH2, PH3	0.894
5	HT	HT1, HT2, HT3	0.797
6	CSHT	CSHT1, CSHT2, CSHT3	0.821
7	TĐ	TD1, TD2, TD3, TD4, TD5	0.682
8	HV	HV1, HV2, HV3	0.784

3.2.2. The evaluation on the survey result

3.2.2.1. Suitability of selection of EFA, using Kaiser Meyer Olkin (KMO) method

The result of the model regression, using KMO method is reported in Table 4. Table 4

reveals that KMO test statistic value = 0.719 which falls within the critical value range (0.5<KMO<1); therefore the EFA method is accepted in this case.

Table 4. The regression result of KMO test and Bartlett's Test

KMO Measure of Sampling Adequacy		0.719
	Approx. Chi-Square	3594.397
Bartlett's Test of Sphericity	df	300
	Sig.	.000

- Investigate the relationship among variables:
From Table 4, the Barlett test statistic value = 0.000 less than 0.05; therefore, the independent variable have linear relationship with the dependent variable.

3.2.2.2. Investigate the explanatory power of variables

From Table 5, the column Cumulative % that the variance value is 74.535%, which indicates that 74.535% of the value of dependent variables is explained by the independent variables, therefore the EFA method is accepted in this case.

Table 5. Total Variance Explained

Componet	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Tota	% of Variance	Cumulative %
1	4.358	17.433	17.433	4.358	17.433	17.433	3.383	13.533	13.533
2	3.471	13.882	31.316	3.471	13.882	31.316	2.701	10.802	24.335
3	3.196	12.783	44.098	3.196	12.783	44.098	2.561	10.245	34.580
4	2.091	8.365	52.464	2.091	8.365	52.464	2.248	8.994	43.574
5	1.770	7.080	59.544	1.770	7.080	59.544	2.243	8.971	52.545
6	1.494	5.974	65.518	1.494	5.974	65.518	2.152	8.606	61.151
7	1.165	4.659	70.178	1.165	4.659	70.178	2.148	8.593	69.745
8	1.089	4.357	74.535	1.089	4.357	74.535	1.198	4.790	74.535
9	.860	3.439	77.973						
10	.628	2.512	80.485						
11	.564	2.257	82.742						
12	.528	2.112	84.855						
13	.498	1.991	86.846						
14	.435	1.739	88.586						
15	.415	1.660	90.245						
16	.392	1.568	91.814						

Componet	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of	Cumulative %	Total	% of	Cumulative %	Tota	% of	Cumulative %
		Variance			Variance			Variance	
17	.343	1.372	93.186						
18	.334	1.334	94.520						
19	.261	1.042	95.562						
20	.254	1.015	96.578						
21	.238	.953	97.531						
22	.216	.862	98.393						
23	.178	.714	99.107						
24	.124	.498	99.604						
25	.099	.396	100.000						

3.2.2.3. The regression results using EFA framework

From the result of KMO method and Cronbach Alpha test, there are 8 groups of

variable represent for main factors influence on consumer's online buying behavior of cosmetic at Pizu Company.

Table 6. Adjusted Model after Cronbach Alpha test and EFA

No	Scale	Variable	Scale's explain
1	F1	TT1, TT2, TT3, TT4, TT5	Convinience
2	F2	TD1, TD3, TD2	Shopping attitude
3	F3	PH1, PH2, PH3	Delivery
4	F4	TC3, TC2, TC1	Finance
5	F5	CSHT1, CSHT2, CSHT3	Infrastructure
6	F6	HT3, HT2, HT1	Return policy
7	F7	SP1, SP2, SP3	Product
8	F8	TD5	Friends's oppinion

3.2.2.4. The regression equation

The regression was used as following:

$$HV = \beta_0 + \beta_1 * F_1 + \beta_2 * F_2 + \beta_3 * F_3 + \beta_4 * F_4 + \beta_5 * F_5 + \beta_6 * F_6 + \beta_7 * F_7 + \beta_8 * F_8 + \varepsilon_i$$

In which:

ε_i : is the random error;

β_0 : a constant;

β_1 : the slope of regression surface (the β represents the regression coefficient associated with each independent variable.

Dependent variable: HV - Online cosmetic buying behavior of consumers

Independent variables: F₁, F₂, F₃, F₄, F₅, F₆, F₇, F₈

The model's regression results using SPSS software are summarized in Table 7.

Table 7 shows the VIF for each variable is

below 10 which indicates reliability. The multicollinearity is not a problem in this study. Durbin-Watson, a test of independence of residuals should be close to 2 and that means that there is independence of errors; which it is: 1.990. The column Sig. shows the significant level of variable F₁, F₂, F₃, F₅, F₇, F₈ is less than 0.05, which mean these variables are statistically significant with 95% confidence level. Whereas, variables F₄, F₆ have Sig. higher than 0.05, which mean they are not clearly related to online purchase intention.

Adjusted R square implies that the independence variables from F₁ to F₈ explained 90.6% of the variation of the dependence variable: consumer's behavior. Therefore the model is suitable.

Table 7. Model Summary

Predictors	Unstandardized Coefficients	t-value	Sig.	VIF	Standardized Coefficients (Beta)	Absolute value of Beta	Percentage (%)	Importance
Constant	2.59E-16	0	1.000					
F1	0.039	2.097	0.037	1.000	0.039	0.039	2.63	6
F2	0.134	7.29	0.000	1.000	0.134	0.134	9.02	3
F3	0.176	9.573	0.000	1.000	0.176	0.176	11.85	2
F4	-0.029	-1.582	0.115	1.000	-0.029	0.029	1.95	7
F5	0.917	49.839	0.000	1.000	0.917	0.917	61.75	1
F6	0.023	1.268	0.206	1.000	0.023	0.023	1.55	8
F7	0.055	2.986	0.003	1.000	0.055	0.055	3.70	5
F8	0.112	6.114	0	1.000	0.112	0.112	7.54	4
Sum						1.485	100	
Dependent Variable: HV								
N				280				
F				335.438				
R-squared				0.908				
Adjusted R-squared				0.906				
Dubin- Watson				1.990				

3.2.2.5. Discussion

All six variables F1, F2, F3, F5, F7, F8 are positively related to HV, while two variables F4, F6 are not clearly related to HV. In this study, infrastructure contributes the most (61.75%) to explain relationship with consumer’s behavior, delivery comes second (11.85%), consumer attitude comes third (9.02%), peer review comes fourth (7.54%), Product comes fifth (3.7%) and convenient comes sixth (2.63%).

3.3. Proposed solutions to enhance Pizu Ltd Company’s selling ability

- The company should concentrate in service quality, infrastructure to provide best quality service for customer; especially increasing the site loading speed as fast as possible. Establish security protocols to avoid virus and malicious code intrusion to private computer.

- Thus, the company should concentrate in improving product quality, proving more return policy when customer don’t pleasure about product.

- Update and provide products’s visuals and information regularly. By doing so, company could reinforce belief of customer, the

reputation and brand imagine could be enhanced

- Company should promote online selling through popular social network such as: Facebook, Zalo... Advertising and sale off policy should be more abundant.

4. CONCLUSIONS

This study proposes and analyzes fators influence the consumer’s online shopping behavior on cosmetic at Pizu Ltd Company. 6 identified groups of factors are infrastructure, delivery, customer attitude, peer preview, product, convinience.

Based on that, the study propose four solutions to improve Company selling ability:

- Improving infrastructure and quality of services, security policy, loading speed;
- Improving quality of products;
- Designing display website attractively and easy to use;
- Providing more promotion activities to stimulate buying behavior.

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ÁP DỤNG PHƯƠNG PHÁP PHÂN TÍCH NHÂN TỐ KHÁM PHÁ TRONG NGHIÊN CỨU CÁC YẾU TỐ ẢNH HƯỞNG ĐẾN HÀNH VI MUA MỸ PHẨM TRỰC TUYẾN TẠI CÔNG TY TNHH PIZU

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TÓM TẮT

Trong nghiên cứu này, để xác định các yếu tố ảnh hưởng đến hành vi mua mỹ phẩm trực tuyến tại công ty trách nhiệm hữu hạn Pizu Việt Nam, tác giả đã tiến hành khảo sát 280 khách hàng có hành vi mua hàng trực tuyến tại công ty TNHH PiZu. Kết quả phân tích nhân tố khám phá (EFA) đã chỉ ra được 7 nhóm yếu tố ảnh hưởng đến hành vi mua mỹ phẩm trực tuyến: (1) Tài chính; (2) Sản phẩm; (3) Sự thuận tiện; (4) Giao phát hàng; (5) Chính sách hoàn trả; (6) Dịch vụ và cơ sở hạ tầng; (7) Thái độ mua sắm có ảnh hưởng đáng kể đến hành vi mua mỹ phẩm trực tuyến tại công ty THHH Pizu. Kết quả nghiên cứu có thể làm cơ sở đề xuất một số giải pháp nhằm nâng cao khả năng mua mỹ phẩm trực tuyến của khách hàng tại công ty TNHH Pizu, bao gồm: nâng cao chất lượng dịch vụ và cơ sở hạ tầng; Nâng cao chất lượng sản phẩm; Thiết kế website có giao diện đẹp mắt, đầu tư về hình ảnh, thông tin chi tiết sản phẩm; giải pháp kích thích khả năng mua sắm của khách hàng.

Từ khóa: EFA, hành vi mua, mỹ phẩm, người tiêu dùng, Pizu.

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