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The Ethical Scale of Sellers Development in E-Commerce from the Perspective of Customers in Vietnam

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Abstract

In recent years, along with the economic growth, e-commerce in Vietnam has developed strongly but has not achieved its full potential. One of the reasons that hinder the development is the lack of trust of customers because there are still some businesses and sellers cheating. This involves ethical issues in business, especially in the e-commerce environment, which has received the attention of many scholars. However, most studies have been conducted in developed countries thus being necessary to be done in developing countries. This research was conducted to develop a new scale to measure the sellers' ethics in ecommerce under customers' perspective in the context of Vietnam. This research is the basis for further research in the future, helping managers to refer to appropriate and effective business policies.

1. Introduction

In recent years, along with the development of technology in general and information technology in particular, e-commerce has developed rapidly on a worldwide scale. According to the Global B2C (Business to Customer) e-commerce report in 2016, there are currently 2.52 billion Internet users in the world; 1.436 billion people participate in online shopping, 2016 revenue is estimated at 2671 billion USD, of which 62% are tangible products and 38% are services; Asia - Pacific is the region with the largest share of the world with 1057 billion USD; China leads the world in e-commerce revenue with $766.5 billion. In Vietnam, according to the e-commerce development report3, as of January 2017, the population of Vietnam is 93.94 million people (31% in urban areas); 50.05 million Internet users; 124.7 million phone subscribers with 47.9 million mobile Internet subscribers; the number of daily Internet users is 87%; the number of people making online purchases is 29%; total e-commerce sales of 1.8 billion USD (average 55 USD/person) compared to the average shopping level of 1582 USD/person worldwide and 1486 USD/person in the Asia-Pacific region. Thus, with the per capita income in 20174, about 2,400 USD, the development potential of Vietnam's e-commerce is still very large.

Compared with traditional commerce, e-commerce has many advantages such as convenience, not limited by space and time, customers can still shop anywhere, thus saving time and costs. Along with many promotional discounts. Moreover, in the current 'flat world', e-commerce has no borders, Vietnamese customers can buy goods in the US (via Amazon) or China (via Taobao)... Sales from cross-border e-commerce is increasing. However, due to the difference in space, the lack of direct contact between the buyer and the seller, the delay between payment and delivery has created many risks for the buyer by the opportunity of some seller; information asymmetry, high-tech crimes also lead to the risk of leaking important and sensitive customer information, for example, bank accounts (Pavlou *et al.*, 2006) [1]. Consumer confidence in e-commerce is still low, and loyalty is not high (Bhattacherjee, 2001: 351-370; 2001: 201-214) [2, 3]. E-commerce is a potential environment for unethical behavior (fake goods, poor quality goods, products not as ordered or the risk of personal information being exposed (Román and Cuestas, 2008; Miyazaki and Fernandez, 2001) [4, 5].

Business ethics is one of the important issues that receive great attention from customers (Roman, 2007; Gaski, 1999) [6, 7]. However, most of the studies to date have been conducted in developed countries, with very few studies being conducted in developing countries. Therefore, it is urgent to conduct in-depth and comprehensive research on ethics in e-commerce business in developing countries - a potential market.

With the context in Vietnam, a developing country, with impressive economic growth in recent years, it is an opportunity for e-commerce to develop in the coming time. To develop e-commerce, the Ministry of Industry and Trade has established the General Department of E-commerce and Digital Economy with the purpose of consulting, developing legal documents,

creating a legal corridor for e-commerce. However, the development of e-commerce in Vietnam has not been commensurate with the existing potential, possibly because the infrastructure system and legal documents are still incomplete to regulate and create fair competition as well as protect the benefits of consumers; on the other hand, the trust of Vietnamese consumers is still low, even for direct sales, for example, in the past time, many famous brands have violated ethics in business such as Khai silk, THP,… Therefore, this study was conducted to develop an ethical scale of e-commerce sellers from the perspective of consumers in Vietnam, from which businesses and managers have better understand and have appropriate policies for e-commerce to develop more and more, bringing benefits to both businesses and consumers.

2. Theoretical Basis
2.1 Ethics and business ethics
Ethics is generally understood as the behavior of people in terms of their right and wrong (Gaski, 1999) [7]. According to Vietnamese Wikipedia, morality is considered a concept of human morality, it belongs to the issue of good - bad, right - wrong, used in three areas: human conscience, system of rules morality and punishment, sometimes called moral values; it is associated with a society's culture, religion, humanism, philosophy, and rules about how to behave from this system. Ethics refers to the goodness of behaviors because "ethics are considered to be all possible moral principles or values that guide behavior" (Sherwin, 1983) [8]. In philosophy, there are two basic theories when evaluating morality: the theory of duty (deontological) and the theory of teleological (teleological). Obligation theory holds that an individual judges actions as right or wrong by upholding moral obligations, rules, or laws. Tertiaryism holds that it is necessary to look at the possible outcomes behind a particular rule, action, or alternative route and try to predict the good or bad outcomes that will come with the actions or routes. (Shanahan and Hyman, 2003 [9]; Barnett et al., 2005) [10]. since then, business ethics is understood as a set of principles and standards that regulate, evaluate, guide and control the behavior of business entities. Business ethics is an ethical category applied to business activities. In the context of the current information and communication technology boom, e-commerce develops rapidly, accounting for an increasing proportion compared to traditional commerce. However, besides the advantages, e-commerce also has disadvantages, such as the gap between buyers and sellers; lack of direct contact and asymmetric information, so there are potential problems related to business ethics of sellers such as: selling fake goods, exaggerating about the function of products and services, unauthorizedly using customer personal information…

2.2 Business Ethics in E-Commerce
Roman (2007) [6], built a seller's ethical scale from the perspective of consumers' perception in e-commerce (OE). Previous studies often mentioned safety issues in online transactions, illegal activities such as fraud, misuse of user's personal information, honesty issues in providing information (Singh) and Hill, 2003) [11]. Several other studies examine the role of government in ensuring the safety and security of information in the Internet environment. Miyazaki and Fernandez (2001) [5], studied customers' perceptions of online shopping, three of the four

topics of interest in the category of business ethics, namely: system security policy, privacy policy and honesty issues of online sellers. Kracher and Corritore (2004), developed a scale of seller's ethical perception in e-commerce including four factors: safety policy, privacy policy, honesty and transaction execution. Most previous studies have shown the lack of e-commerce seller ethics scale in terms of customer perception (Román and Cuestas, 2008; Cheng et al., 2014) [4, 12], and also showed that, in developing countries, the important role of customer service (Zhou et al., 2009; Wolfinbarger and Gilly, 2003) [13, 14].

On that basis, in this study, the author proposes an ethical scale of sellers in e-commerce from the perspective of consumers' perception, including 05 factors: Safety policy; Privacy Policy; Seller's honesty; Conduct transaction; and Customer Service. In which, Safety Policy is understood as consumers' awareness of the safety of online transactions and the protection of financial information from unauthorized access according to Roman (2007) [6]; A privacy policy is understood as a consumer's perception of the protection of personal information on the Internet or a consumer's willingness to share information over the Internet according to Roman (2007) [6], Limbu et al. (2012) [15]; Transaction execution is understood as delivery on time, product received as described on the website as well as the appropriateness of technical functions integrated in the sales website according to Wolfinbarger and Gilly (2003) [14], Limbu et al (2012) [15]; Seller's honesty is understood that sellers do not use deceptive or manipulative activities to persuade consumers to buy their products according to Roman (2007) [6]; Limbu et al (2012) [15]; Customer service is responsive, helpful and ready to respond to customer requests quickly according to Wolfinbarger and Gilly (2003) [14].

3. Research Methods
This study was carried out according to a 3-step process. Step 1, develop indicators (Items Generation) through qualitative research method (desk study and group interview). Step 2, screen indicators (Items Purification) through questionnaires to investigate and collect information. The subjects of the investigation are students, lecturers and office workers because these are potential customers who are always sensitive to new things (Yoo and Donthu, 2001) [16]. Quantitative research method is used to test reliability through Cronbach Alpha coefficient, EFA discovery factor analysis. Step 3, evaluate the reliability and value of the scale (Reliability Assessment and Construct Validation) through the quantitative research method (confirmative factor analysis CFA; test of fit with the obtained data set and unidirectionality; composite reliability and extracted variance).

4. Results
Step 1: develop indicators
The preliminary questionnaire includes 35 indicators designed on the basis of a review of previous studies (Román and Cuestas, 2008; Roman, 2007; Zhou et al., 2009; Wolfinbarger and Gilly, 2003; Riquelme and Román, 2014) [4, 6, 13, 14, 17]. The author conducts group interviews (each group has from 06 to 08 people who have ever purchased online) with convenient random sampling method. The purpose of this step is to identify and develop new scales, and indicators, if any. First, the interviewer asked questions

related to the shopper's experience, then, taking notes on which websites they frequently purchased from, what factors they cared about before and after buying, their perception of the ethical issue of salespeople. Next, using the expert method with 10 PhD students, majoring in marketing and/or e-commerce research to assess the appropriateness of the scale. After reading the concept and being explained about the business ethics of e-commerce sellers, they will arrange the indicators into one of five groups: Security policy; Privacy Policy; Seller's honesty; Conduct transaction; and Customer Service. Criteria set is that at least 06 people have the same assessment and similar arrangement (Tian *et al*., 2001) [18]. As a result of this step, 10 indicators are removed and 25 indicators are included in the study in the next step.

Step 2: **filter the indicators**
Preliminary survey sample information:
The preliminary survey results in step 2 were analyzed with 157 observations, the subjects of which were students, lecturers and office workers (Table 1).

Table 1: Summary of preliminary survey sample information

Criteria	Information	Quantity	Ratio (%)
Gender	Male	81	51,6
	Female	76	48,4
Age	18-24	89	56,7
	25-35	46	29,3
	Over 35	22	14,0
Job	Student	80	51,0
	Teacher	41	26,1
	Office staff	36	22,9
Income	Under 5 million VND	95	60,5
	From 5 to 10 million VND	55	35,0
	Over 10 million VND	7	4,5
	Total	157	

Source: Compiled by the author

Table 2: Cronbach's alpha coefficient Test results

Variable symbol	Scale average	Scale variance	Total variable correlation	Cronbach's Alpha if item deleted
S scale with Cronbach's Alpha: 0.821				
S1	11,5478	2,672	0,567	0,809
S2	11,5987	2,498	0,623	0,784
S3	11,5924	2,499	0,662	0,766
S4	11,5478	2,310	0,726	0,735
P scale with Cronbach's Alpha: 0.861				
P1	7,4268	1,733	0,756	0,786
P2	7,3631	1,707	0,743	0,798
P3	7,3885	1,778	0,709	0,829
D scale with Cronbach's Alpha: 0.741				
D1	7,9172	1,102	0,532	0,696
D4	7,9936	1,083	0,541	0,686
D5	7,9236	1,097	0,631	0,585
F scale with Cronbach's Alpha: 0.709				
F1	7,8599	0,826	0,503	0,659
F2	7,9172	0,961	0,536	0,612
F4	7,9299	0,912	0,551	0,589
CS scale with Cronbach's Alpha: 0.709				
CS1	10,8089	2,399	0,664	0,710
CS3	11,1210	2,299	0,540	0,775
CS4	10,9172	2,294	0,642	0,716
CS6	10,9682	2,505	0,567	0,754

Source: Compiled by the author

The Cronbach Alpha reliability coefficient test was used to remove unsuitable variables. According to common standards, scales and indicators that are considered good must have a Cronbach Alpha coefficient from 0.8 to close to 1 and from 0.7 to close to 0.8. However, some studies have suggested that a Cronbach Alpha coefficient from 0.6 is suitable for a new discovery study (Nunnally, 1978; Slater and Narver, 1995) [19, 20]. Total variable correlation coefficient is the correlation coefficient of one variable with the mean of other variables in the same scale. The higher this correlation coefficient, the higher the correlation of the research variable with other variables in the same group. The total correlation coefficient will be chosen if it is greater than or equal to 0.3 and vice versa (Nunnally, 1978) [19]. The test results through the Cronbach Alpha coefficient (Table 2) show that, 08 indicators are rejected, 17 indicators are continued to be studied in the next step.

Table 3: Exploratory factor analysis results

Variable symbol	Factor				
	S	CS	P	D	F
S4	0,802				
S2	0,751				
S3	0,729				
S1	0,728				
CS1		0,788			
CS4		0,786			
CS6		0,778			
CS3		0,695			
P1			0,895		
P3			0,864		
P2			0,858		
D5				0,801	
D4				0,776	
D1				0,776	
F2					0,806
F4					0,775
F1					0,699

Source: Compiled by the author

Table 4: Summary of survey sample information in step 3

Criteria	Information	Quantity	Ratio (%)
Gender	Male	118	53,4
	Female	103	46,6
Age	18-24	100	45,2
	25-35	79	35,7
	Over 35	42	19,0
Job	Student	85	38,5
	Teacher	47	21,3
	Office staff	89	40,3
Income	Under 5 million VND	133	60,2
	From 5 to 10 million VND	67	30,3
	Over 10 million VND	21	9,5
	Total		

Source: Compiled by the author

EFA exploratory factor analysis
Exploratory Factor Analysis (EFA) is used to reduce a set of many interdependent observed variables into a more meaningful set of observed variables (called factors), while still containing most of the information of the original set of variables (Hair *et al*., 2011) [21]. 5 factors with 17 observed variables that meet the requirements in the reliability assessment are included in the EFA exploratory factor

analysis. The results of EFA exploratory factor analysis (Table 3) allow to draw out 05 ethical factors of sellers in e-commerce from the perspective of consumers' perception, which are: (i) Safety policy (S), including: S1 is the Easy-to-understand Privacy Policy; S2 is the Trading Terms and Conditions clearly displayed before purchase; S3 is a Website that provides secure payment methods; S4 is a Website with appropriate security features. (ii) Privacy Policy (P), including: P1 is a Website that clearly explains how to use personal information of customers; P2 is that the Customer only needs to provide the necessary personal information for the transaction; P3 is Privacy Policy Information clearly laid out. (iii) Seller's honesty (D), including: D1 is that Seller exaggerates the benefits and characteristics of their services; D4 is a Seller who takes advantage of inexperienced shoppers to direct them towards a purchase; D5 is a Salesperson trying to convince customers to buy things they don't need. (iv) Transaction execution (F), including: F1 is the price displayed on the website is the actual invoiced amount; F2 is the Product received by the customer exactly as described on the website; F4 is the Seller that does exactly what it has committed. (v) Customer Service (CS), including: CS1 is the Seller who is always ready and willing to respond to customer requests; CS3 is When a customer has a problem, the seller always solves it enthusiastically; CS4 is Good After-Sales Care Service; CS6 is When the goods have problems, customers can exchange them easily.

Step 3: evaluate the reliability and value of the scale
Research sample information
In this step, re-evaluate the reliability and suitability of the scale in order to develop the concept of the ethical scale of sellers in e-commerce from the perspective of consumers' perception. The results of the analysis of 221 observations with the subjects being students, lecturers and office workers are presented in Table 4.
The CFA confirmatory factor analysis in scale testing uses SEM linear structure analysis to test the theoretical structure of the scales about the relationship between a measurement variable and other measurement variables without being affected bias due to measurement error. From the results of EFA discovery factor analysis in step 2, 05 factors (S, P, D, F, CS) are used to build the latent variable is the seller's ethics in e-commerce from the perspective of consumer awareness (OE).
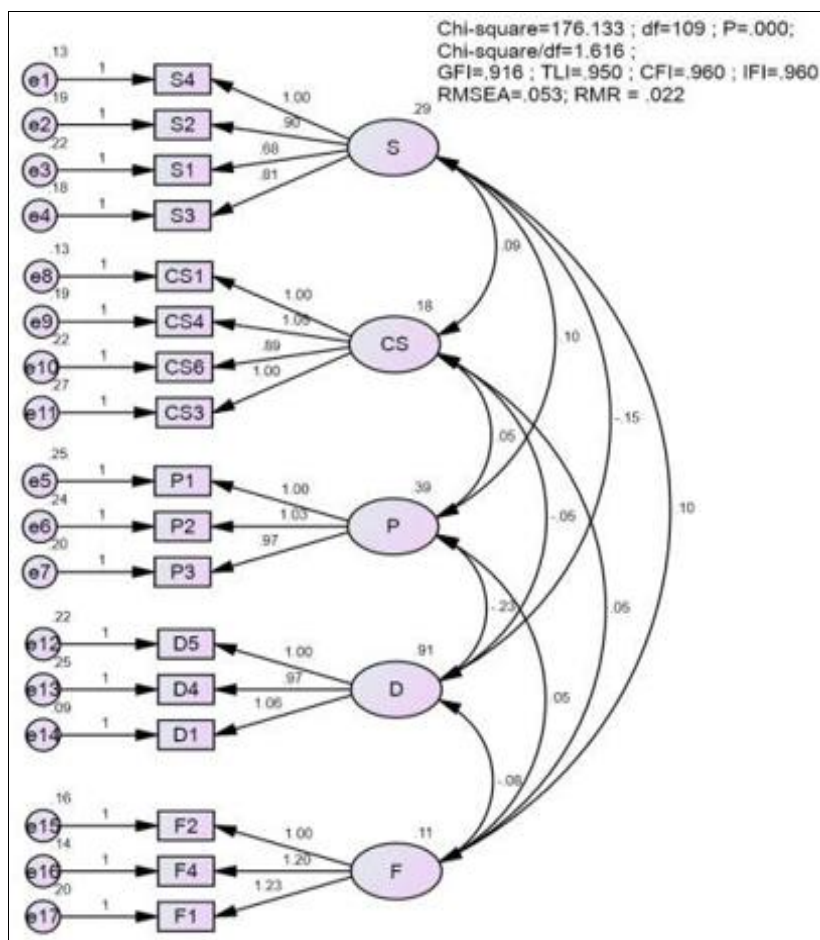

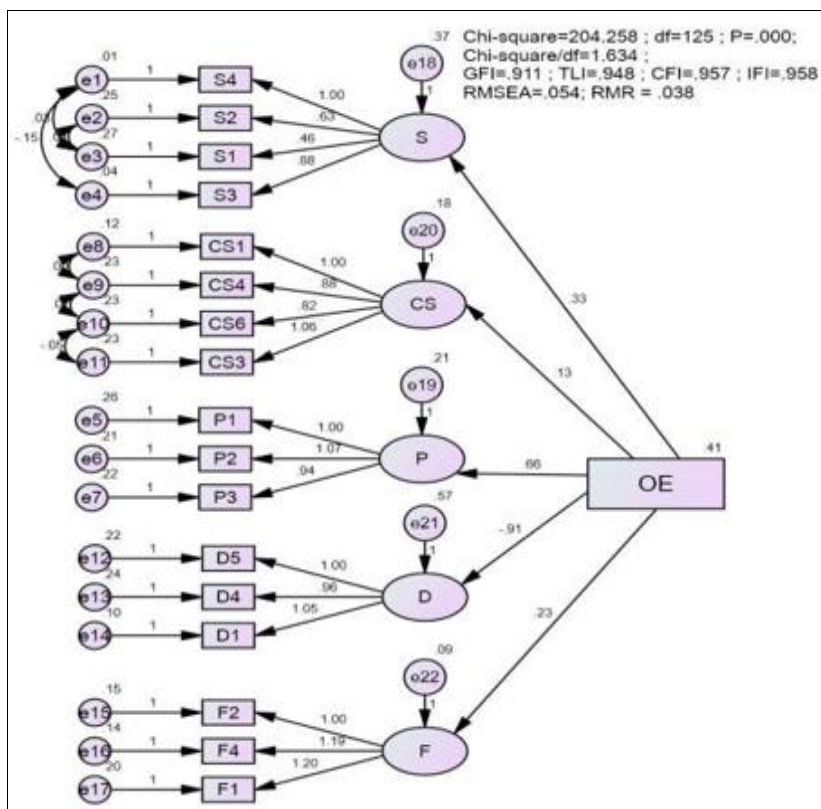
Fig 1: Level 1 Measurement model

Fig 2: Level 2 Measurement model

Testing the fit with the data set and unidirectionality
The results of CFA confirmatory factor analysis (Fig 1) show that the research model is consistent with the obtained data set (Chi-squared is 176,133; degrees of freedom df is 109; p is 0.000). The criteria for measuring the relevance: The ratio of Chi-squared Chi-square values to the number of degrees of freedom (CMIN/df); the index compares the fit of a model to a dataset and compares the fit of another model to the data set itself (CFI); absolute fitness index (GFI); growth index (IFI); Tucker-Lewis index (TLI); criteria for evaluating residual variance of the observed variable and the residual correlation of one observed variable with the residual correlation of another observed variable (RMR); The criteria for determining the fit of the model to the population (RMSEA) are both satisfactory and accepted in the context of the study, so the scales achieve unidirectionality (Table 5).

Table 5: Results of conformity testing with market data

Target	P	CMIN/df	CFI	GFI	TLI	IFI	RMR	RMSEA
Result	0,000	1,616	0,960	0,916	0,950	0,960	0,022	0,053
Criteria	<0,5	<3	> 0,9	>0,9	>0,9	>0,9	< 0,09	<0,08

Source: Compiled by the author

Combined reliability and extracted variance
The results of evaluating the reliability of each scale by calculating the combined reliability (CR) and the extracted mean variance (AVE) (Table 6) show that, the scales have good reliability (the aggregate reliability of each scale is greater than 0.70; AVE is greater than 0.50 according to Bagozzi and Yi, 1988) [22]. Therefore, the components of the scale are retained to carry out the study in the next step.

Building OE scale model
According to the method of Dabholkar *et al* (1996), the author performed CFA analysis using Amos 20 to compare the fit of the 5-factor model with alternative models with fewer factors: 4-factor model (S+P, D, F, CS); 3-factor model (S+P, D+F, CS); 2-factor model (S+P+D+F and CS); one-factor model (S+P+D+F+CS) (Table 7). The results of SEM analysis (Table 7) show that the 5-factor model fits the data better than the remaining models, specifically: Chi squared is 204,258, degrees of freedom df is 125 (with p equal to 0.000); the indicators CMIN/df equal to 1.634; CFI equals 0.957; GFI equals 0.911; TLI equals 0.948; RMR equals 0.038; An RMSEA of 0.054 was satisfactory and accepted in the context of the study (Bagozzi and Yi, 1988) [22]. Therefore, the 5-factor model (Fig 2) reached values consistent with the obtained data set and suitable for inclusion in the next research step.

The results of the normalized regression (Table 8) show that, $\beta2 > \beta4 > \beta5 > \beta1 > \beta3$, therefore, the latent variable OE has the strongest impact on P, followed by D, F, S and finally CS.

Table 6: Statistical indicators of the OE scale

Scale	CR	AVE	Standard deviation	Correlation coefficients				
				S	P	D	F	CS
S	0,818	0,533	0,5027	1	0,299	-0,293	0,579	0,378
P	0,838	0,634	0,6871	0,299	1	-0,377	0,263	0,197
D	0,780	0,542	0,9937	-0,293	-0,377	1	-0,243	0,135
F	0,723	0,500	0,4441	0,579	0,579	-0,243	1	0,327
CS	0,946	0,814	0,4713	0,378	0,197	-0,135	0,327	1

Source: Compiled by the author

Table 7: Comparison of the fit of the 5-factor model with alternative models of OE

	Chi square (χ2)	CMIN/df	GFI	CFI	TLI (NNFI)	RMR	RMSEA
5 elements	204,258	1,634	0,911	0,957	0,948	0,038	0,054
4 elements	393,327	3,122	0,838	0,856	0,825	0,049	0,098
3 elements	278,751	2,362	0,884	0,914	0,888	0,071	0,079
2 elements	430,141	3,469	0,812	0,835	0,797	0,048	0,106
1 element	345,942	2,883	0,859	0,878	0,845	0,057	0,093
Standard		< 3	> 0,9	> 0,9	> 0,9	< 0,09	< 0,08

Source: Compiled by the author

Table 8: Normalized Regression Weights

			Estimated
S	<--	OE	0,327
P	<--	OE	0,672
CS	<--	OE	0,192
D	<--	OE	-0,610
F	<--	OE	0,436

Source: Compiled by the author

5. Conclusion
The main purpose of this study is to develop a scale to evaluate the ethics of e-commerce sellers from the perspective of consumers in developing countries with the context of Vietnam (a developing country, rich in potential for e-commerce development in the future). On the basis of inheriting previous studies, at the beginning of the study, a scale of 35 indicators was synthesized. Then, through a qualitative study and two quantitative studies, based on Amos software, the author has identified the ethical scale of sellers in e-commerce from the perspective of consumers' perception including: 5 components, which are: Safety policy; Privacy Policy; Honesty; Conduct transaction; and Customer Service, with 17 indicators.

However, this study still has some limitations because it has not used a scale to analyze the influence of component factors on customer behavior in e-commerce (such as: trust, satisfaction, intention to re-purchase); the study is contextual in Vietnam representing developing countries, so the scale may not be comprehensive and complete; the study only mentioned existing customers, not to potential customers.

The author hopes that the ethical scale of sellers in e-commerce from the perspective of consumers' perception will be the basis for conducting further studies in depth and on a broader scale (such as: analyzing the influence of salesperson's ethics on customer behavior; research object is potential customer; research context in many countries...). The author also hopes that this study will help businesses operating in the field of e-commerce better understand customers' expectations and perceptions about their own ethical issues, thereby, having appropriate policies to ensure the interests of customers, thereby, building trust and improving customer satisfaction and loytalty to the business.

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