Development a New Scale for Consumers' Perception About the Ethics of Retailers in B2C E-Commerce in Developing Countries: Evidence from Vietnam

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Abstract
In recent years, along with the economic growth, the electronic commerce in Vietnam has a significant development but its increase hasn't achieved the full potential. One of the biggest restraints is the lack of customers' trust toward the online sellers. Beside honest sellers, there exist also some sellers who are still opportunist, cheating their customers. These issues concern the business ethics. The ethics in electronic commerce that is a part of business ethics has been attracted by a lot of scholars and managers in the world. However, almost all of the studies in this issue have been executed in developed countries. It's a gap that is necessarily to fill up. Therefore, the main objective of this study is to develop and valid a new scale to measure the sellers' ethics in e – commerce with customers' perspective in the context of Vietnam - one of the most dynamic developing countries in the world. The authors expect this scale will be a basement for the future researches that can give a deeper understanding about the ethics and for better e - commerce environment in the next years.
Keywords: Ethics, E-retailers, E-commerce, Vietnam, Developing country

1. INTRODUCTION

In recent years, with the development of technology in general and information technology in particular, e-commerce has developed rapidly around the world. According to the Global Business-to-Customer (B2C) report in 2016, there are 2.52 billion people use the Internet worldwide; 1,436 billion people participated in purchasing online; the revenue estimated is about 2,671 billion US dollars of which 62% of tangible products and 38% of services; Asia Pacific is the region with the largest share of the world with 1,057 billion US dollars; China leads the world in e-commerce with 766.5 billion US dollars. In Vietnam, according to the e-commerce report, by January 2017, Vietnam's population was 93.94 million (whereas 31% in urban areas), 50.05 million Internet users, 124.7 million telephone subscribers with 47.9 million mobile Internet subscribers, 87% of daily Internet users; 29% of population participates in purchasing online; Total of e-commerce sales volume was 1.8 billion US dollars (55 US dollars per capita), compared with 1582 US dollars per capita worldwide and 1486 US dollars per capita in the Asia-Pacific region. Thus, with the income per capita of about 2400 US dollars in 2017, the potential development of e-commerce in Vietnam is very potential.

In comparison with traditional commerce, e-commerce has many advantages such as convenience, unlimited by space and time, customers can shop anywhere and anytime. It also helps consumers to save time and costs with many discount promotions. Moreover, in a flat world today, e-commerce cross – border is more and more popular that means Vietnamese customers can buy at Amazon.com (USA) or Taobao.com (China)... Sales from e-commerce cross-border is increasing. However, due to the spatial distortion, lack of face to face interact between buyers and sellers, due to the lag time between payment and delivery of goods, there are significant risks to the buyer by the opportunism of some sellers, the information asymmetry, the high-tech crimes that can make consumers losing individual sensitive and important information (such as bank accounts) [1]. Previous studies showed that consumer trust and loyalty in e-commerce is low [2, 3]. E-commerce is a potential environment for unethical actions (counterfeit goods, poor quality goods, improper product placement and disclosure of personal information [4, 5].

Many studies have shown that business ethics is one of the most important issues that has attention of consumers, scholars and managers [6], [7]. However, to date most studies have been conducted in developed countries, with little studies conducted in developing countries [8]. This is a gap that requires more in-depth and comprehensive research in developing countries – very potential markets in the future. Moreover, many studies showed that in developing countries the legal system, infrastructure… have not been consistent with the

development of e-commerce. The support services for e-commerce are not also sufficient so consumer trust is low, many people still give priority to buy direct in brick and mortar stores. It is necessary to build and develop the trust of consumer in e-commerce [8]. One of the vital factors of it is the business ethics [9, 10]

Vietnam is a developing country with impressive economic growth over these recent years. This is an opportunity for e-commerce to develop rapidly in the future. In addition, for e-commerce development, the Ministry of Industry and Commerce established the e-commerce and digital department to consult the building of laws to create the basement for e-commerce development. However, e-commerce in Vietnam has not developed adequately with the potential of existing infrastructure and legal documents are still incomplete to regulate and create fair competition as well as protection of human rights, as well as consumer individual informations. The trust of consumers in Vietnam is still at very low level even in the direct selling because of a number of well-known brands violating ethics in business such as Khai silk (famous brand in silk) , THP (famous brand in drinking products)... Therefore, development a scale for measuring the consumers' perception about the ethics of retailers in e-commerce in Vietnam is necessary to help scholars and managers to have an insight understanding and adopting appropriate policies in practice.

This work's end is to answer the following research question: What are the components of consumer perceptions about online vendor ethics in developing countries? The main objective in this paper is to develop a suitable scale of retailers' ethics in the consumers' perspective in developing countries with evidence from Vietnam. This scale could be valuable for managers and policy makers in their works in contributing their companies and also the e-commerce in general. To achieve this goal, we conducted three studies:

Research 1: Items generation
Research 2: Items purification
Research 3: Reliability assessment and construct validation

2. Framework for research:
2.1. Marketing ethics
According to Churchill 1979, the first step in building the scale is to detail the scope of that scale. Morality is generally understood as human behavior in the sense of right and wrong [7]. Ethics is considered to be the concept of man's morality, it belongs to good - bad, right - wrong, used in three areas: the human conscience, the system of rules morals and punishments are sometimes called moral values; It ties in with the culture, religion, humanism, philosophy and the rules of a society about how to behave from this system. Ethics refers to the good of behavior because "virtue is considered to be all possible moral principles or conductive values [11]. In philosophy, there are two basic doctrines when evaluating ethics: deontological and teleological. Theory of obligation that an individual judges action is right or wrong by promoting ethical obligations, rules, or laws. Theoretically it is necessary to consider the possible outcomes behind a specific rule, action or alternative path and try to predict good or bad results that will come with actions or exposures [12, 13]. From there we understand business ethics as a set of principles, norms that regulate, evaluate, guide and control the behavior of business subjects. Business ethics is the ethical category used in business. Morality is not ambiguous, it is actually tied to business interests. In a business, marketing is a very easy subject to ethical issues. As discussed above, the category of marketing ethics is understood as the ethical issues that apply in the marketing of the business from marketing strategy to marketing tactics, information to customers. and behave with the customer [12, 13]. Simply put, if you say "customer is God" then you have to do right with that. Beginning in the 1960s with the study of [14] and particularly with the classic study of [15] (1986) "General Theory of Marketing Ethics," detailed the issues of the category Marketing ethics is followed by a series of studies on this subject.

There are five trends in ethical marketing research [16]:

Firstly, research focuses on the topic of business ethics as a function of strategic marketing (product, price, distribution, promotion, ...).

Secondly, research involves the specialized aspect of marketing ethics

Thirdly, research focuses on how decisions are made about ethical issues

Fourthly, the study explores consumer perceptions of corporate non-compliance

Fifth, consumer perceptions of ethics in consumption

2.2. Ethical issues in e-commerce
This study builds a customer-perceived ethical framework for online retailers (OE). We define OE as a positive consumer perception of the behavior of online retailers [6]. In dealing with customers in a security, secure, honest and sincere manner as well as ensuring the interests of customers. Previous studies have frequently addressed the issue of online transaction safety, such as fraudulent activity, the violation of user privacy, and the truthfulness of information provision [17, 18] . A number of studies have examined the role of government in ensuring the safety and security of information in the Internet environment. [6] studied consumer perceptions of online shopping. Three of the four topics covered are business ethics, privacy, system security, online fraud. [19]

identify aspects such as access, copyright, information security, child protection, information security and trust. [6] develops a measure of the ethical awareness of retailers in e-commerce, which consists of four components: information security, confidentiality, deception, and enforcement. Previous studies have indicated a lack of understanding of the ethics of sellers in e-commerce [10, 20]. In developing countries, the role of customer service is important [21, 22] Thus, in this study authors develop a composite scale with the initial assumption of receiving The ethics of the retailer in terms of customer consist of 5 elements: Security, Privacy, Non-deception, Fulfillment and Customer Services.

3. Develop a scale
3.1. Item generation
The author assembles a preliminary questionnaire consisting of 35 indicators based on the synthesis of previous studies [6, 10, 17, 18, 23]. By using group interviews (each group of 6 to 8 people who have ever shopped online) with convenient random sampling. The purpose of this study is to assist in the process of defining dimensions of the scale, to develop new indicators wherever possible, to make deep estimates of the use of terminology and to limit duplication and confusion questions. The interviewer first asks questions related to the interviewer's purchase experience, then looks at whom they buy from, what they consider before and after buying, their perceptions to the seller's ethical issues such as privacy, security, honesty, transactional and customer service. We then applied the expert approach to 10 PhD students in marketing to assess whether the indicators and scales were appropriate. After reading the concepts and explanations related to the business ethics of online sellers, they arrange the indicators into one of five safe, private, honest, enforceable, customer service or inappropriate. The criteria is to have at least 6 people evaluate and arrange similarly. After this study, ten observations were removed and the remaining 25 observed for further study.

3.2. Item purification
3.2.1. Summary of research
This study used a questionnaire to investigate the data collection. Investigators are graduate students and doctoral students at Hanoi universities as they are potential customers and are sensitive to new ones. The number of valid questionnaires collected was 157 with the information summarized in Table 1:
3.2.2. Preliminary survey information
Table 1: Summary of sample survey information

	Information	Quantity	%
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
Profession	Student	80	51.0
	Teacher	41	26.1
	Officer	36	22.9
Income	Below 5 million VND	95	60.5
	From 5 to 10 million VND	55	35.0
	Over 10 million VND	7	4.5

Source: Analysis of authors
3.2.3. Reliability testing by Cronbach Anpha coefficient
Cronbach's Alpha reliability coefficient is used first to remove unsuitable variables. By convention, a set of questionnaires rated as good must have a Cronbach's Alpha coefficient from 0.8 to nearly 1, from 0.7 to 0.8 to be used. However, some researchers believe that the Cronbach's Alpha coefficient from 0.6 is used in the concept of measurement that is new to respondents in the context of the study [24, 25].

The total variable correlation coefficient is the correlation coefficient of one variable with the average of the other variables in the same scale. Therefore, the higher this coefficient, the higher the correlation of variables with other variables in the same group. The total variable correlation coefficient will be chosen when greater than 0.3. Conversely, if the correlation coefficient of less than 0.3 is considered rubbish, it will be excluded from the scale [24, 25]. After this step, eight observations were excluded due to unsatisfactory, and the remaining 17 observations were further analyzed.

Table 2: Summary of Cronbach's Alpha test results

Symbol	Average	Variance	Total correlation	Cronbach's Alpha if deleted items
Factor S with Cronbach's Alpha: 0.821				
S1	11.5478	2.672	.567	.809
S2	11.5987	2.498	.623	.784
S3	11.5924	2.499	.662	.766
S4	11.6369	2.310	.726	.735
Factor P with Cronbach's Alpha: 0.861				
P1	7.4268	1.733	.756	.786
P2	7.3631	1.707	.743	.798
P3	7.3885	1.778	.709	.829
Factor D with Cronbach's Alpha: 0.741				
D1	7.9172	1.102	.532	.696
D4	7.9936	1.083	.541	.686
D5	7.9236	1.097	.631	.585
Factor F with Cronbach's Alpha: 0.709				
F1	7.8599	.826	.503	.659
F2	7.9172	.961	.536	.612
F4	7.9299	.912	.551	.589
Factor CS with Cronbach's Alpha: 0.790				
CS1	10.8089	2.399	.664	.710
CS3	11.1210	2.299	.540	.775
CS4	10.9172	2.294	.642	.716
CS6	10.9682	2.505	.567	.754

Source: Analysis of authors

3.2.4. Analyzing the EFA Factor

Exploratory Factor Analysis (EFA) is a statistical analysis method used to abbreviate a set of many interdependent observation variables into a set of variables (called factors) that are less likely to have them, more meaningful but should contain most of the information of the initial set [25]

Composition scales of satisfactory overall ethical con- cepts in reliability evaluation will be used in the EFA. After measuring the scales by the Cronbach's Alpha coefficient, the five factors with 17 observed variables were included in the factor analysis.

Table 3: Results of exploratory factor analysis

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

Source: Analysis of authors

The results of factor analysis (Table 3) allow us to draw on five factors:

• First factor: Security policy (S)

S1: Privacy policy is easy to understand

S2: Terms and conditions of trade are clearly displayed before purchase

S3: Website provides secure payment methods
S4: Website has the proper security features.
• Second factor: Privacy (P)
P1: Website explains how to use personal information of customers.
P2: The customer only needs to provide the personal information necessary for performing the transaction.
P3: Privacy policy information is clearly stated.
Factor 3: Non-deception (D) - Inverted questions
D1: Seller exaggerates the benefits and characteristics of their services
D4: Sellers take advantage of inexperienced buyers to direct them to purchase
D5: The seller tries to persuade customers to buy something they do not need
• Fourth Factor: Fulfillment (F)
F1: The price displayed on the website is the actual amount invoiced.
F2: Customer products are exactly as described on the website.
F4: The seller has done the right thing
• Factor 5: Customer Service (CS)
CS1: The seller is always willing and willing to meet my requirements
CS3: When customers have problems, the seller always resolved hearted.
CS4: Good after-sales service
CS6: When the goods have problems customers can return easily

3.3. Study 3: reliability assessment and construct validation
3.3.1. Introduction of research samples
In this study, the author reevaluates the reliability and relevance of the scale to develop the concept of overall moral measurement. The overall OE morality is a latent variable formed from five concepts: Privacy, Privacy, Non-deception, Fulfillment, and Customer Service. The results of Study 2 were analyzed on a sample of 221 survey samples, with the information summarized in Table 4:

Table 4: Summary of survey sample data in the study 2

	Information	Số lượng	Tỷ lệ (%)
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
Profession	Student	85	38.5
	Teacher	47	21.3
	Officer	89	40.3
Income	Below 5 million VND	133	60.2
	From 5 to 10 million VND	67	30.3
	Over 10 million VND	21	9.5

Source: Analysis of authors

3.3.2. Confirmatory Factor Analysis CFA
In scale testing, the CFA method in linear SEM analysis has many advantages over conventional methods such as correlation coefficients, factor analysis EFA because CFA allows us to verify the theoretical structure of the measurement scales as the relationship between a measurement variable and other measurement variables without deviation from the measurement error.

From the EFA results in the preliminary study, there are five main concepts S, P, D, F, CS used in constructing latent variables as overall morality. Figure 1 shows the results of CFA analysis with 18 observation variables - 5 factors.
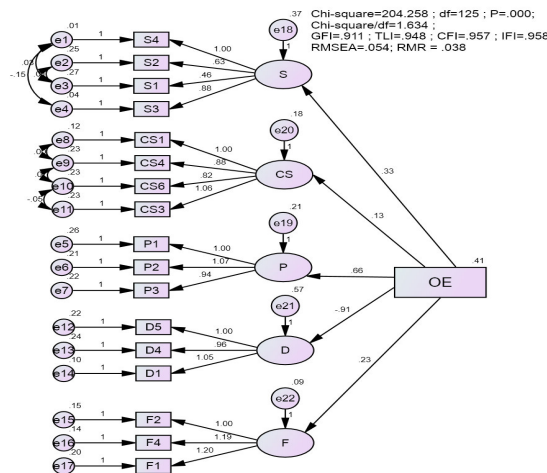
3.3.3. Verification of market relevance and unidirectionality

Table 5: Results of the CFA assessment with market data

Indices	P	CMIN/df	CFI	GFI	TLI	IFI	RMR	RMSEA
Results	0.000	1.616	0.960	0.916	0. 950	0.960	0.022	0.053
Criterion	<0.5	<3	> 0.9	>0.9	>0.9	>0.9	< 0.09	<0.08

Source: Analysis of authors

The CFA results show that the model is consistent with market data: Chi squared = 176.133, degree of freedom df = 109 (p = 0.000). The CMIN / df, CFI, GFI, IFI, TLI, RMR, RMSEA compliance metrics were also acceptable and acceptable in the research context of the project, as shown in Table 5

3.3.4. Comprehensive reliability and extraction deviation:

This study also evaluates the reliability of each scale by calculating the composite reliability (CR) and the mean difference (AVE). The results indicate that the scales have good reliability, since the composite reliability of each scale is greater than 0.70, and the AVE of each scale is greater than 0.50 [24, 25] (see Table 6). Consequently, the components of the scale are retained in the next study

Table 6: Summary of statistical indicators of the overall ethical scale

Factor	CR	AVE	SD	Correlation coefficient				
				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: Analysis of authors

3.2.5. Build up the overall ethics model

By the method of [26], the author performs CFA analysis using Amos 20 comparing several factorial structures (see table 7). The author compares the suitability of the five-factor model with alternative models with fewer factors: four factors (S + P, D, F, CS); 3 factors (S + P, D + F, CS); 2 factors (S + P + D + F and CS); 1 factor (S + P + D + F + CS)

Table 7: Comparison of different models of the overall ethical concept OE

	Chi square (χ^2)	CMIN/df	GFI	CFI	NNFI (TLI)	RMR	RMSEA
5 factors	204.258	1.634	0.911	0.957	0.948	0.038	0.054
4 factors	393.327	3.122	0.838	0.856	0.825	0.049	0.098
3 factors	278.751	2.362	0.884	0.914	0.888	0.071	0.079
2 factors	430.141	3.469	0.812	0.835	0.797	0.048	0.106
1 factor	345.942	2.883	0.859	0.878	0.845	0.057	0.093
Criterion		**< 3**	**>0.9**	**>0.9**	**>0.9**	**< 0.09**	**<0.08**

Source: Analysis of authors

The results of the SEM analysis summarized in Table 6 show that the 5-factor model is more suited to data than other models. Specifically: Chi squared = 204,258, degrees of freedom df = 125 (with p = 0.000). Measures of CMIN / df, CFI = 0.957, GFI = 0.911, TLI = 0.948, RMR = 0.038, RMSEA = 0.054 were satisfactory and acceptable in the research context of the project. Therefore, the five-factor model as shown in Figure 2 has values that are consistent with market data and are appropriate for further study.

Normalization coefficient: This coefficient determines the order of impact but also the degree of contribution to the independent variable for the dependent variable

Table 8: Normalized regression weights

			Estimate
S	<---	OE	.327
P	<---	OE	.672
CS	<---	OE	.192
D	<---	OE	-.610
F	<---	OE	.436

Source: Analysis of authors

Based on the results in Table 8, we see in terms of magnitude: $\beta2 > \beta4 > \beta5 > \beta1 > \beta3$ so that the most potent OE variable affects P, followed by D, F, S and finally CS.

4. CONCLUSIONS AND RECOMMENDATIONS

The main purpose of this study is to develop a scale for a general assessment of customer perceptions about the ethics of online sellers in developing countries, in the context of Vietnam as a developing country. very dynamic, potential to develop e-commerce in the future much. Authors based on previous studies to compile a scale of 35 initial observations. Through a qualitative study and two quantitative studies, based on Amos software, the author analyzed and extracted a composite scale for consumer perceptions about the ethics of e-commerce sellers including 17 observes. However, the research still has some limitations such as not using the newly developed scale to analyze its impact on customer behavior in e-commerce such as trust, satisfaction, intention to purchase goods. The study is based in Vietnam representing the developing countries so the scale may not be comprehensive and sufficient. The research also only mentions the existing customers, not to mention potential customers.

The author hopes this will be the basis for more follow-up research on the ethical issue of e-commerce sellers in the coming time. We also hope that this research will help e-commerce businesses better understand consumers' ethical expectations and perceptions in order to have appropriate policies to ensure their benefits. For the customer, through which to build trust as well as improve their satisfaction and loyalty. Through this research, the authors also hope that this is the basis for managers and policymakers to better understand business ethics in order to have appropriate policies to create legal and platforms for the development of e-commerce in the future.

5. REFERENCES

1. Pavlou, P.A., H. Liang, and Y. Xue, *Understanding and mitigating uncertainty in online environments: a principal-agent perspective.* 2006.
2. Bhattacherjee, A., *Understanding information systems continuance: an expectation-confirmation model.* MIS quarterly, 2001: p. 351-370.
3. Bhattacherjee, A., *An empirical analysis of the antecedents of electronic commerce service continuance.* Decision support systems, 2001. **32**(2): p. 201-214.
4. Román, S. and P.J. Cuestas, *The perceptions of consumers regarding online retailers' ethics and their relationship with consumers' general internet expertise and word of mouth: a preliminary analysis.* Journal of Business Ethics, 2008. **83**(4): p. 641-656.
5. Miyazaki, A.D. and A. Fernandez, *Consumer perceptions of privacy and security risks for online shopping.* Journal of Consumer affairs, 2001. **35**(1): p. 27-44.
6. Roman, S., *The ethics of online retailing: a scale development and validation from the consumers' perspective.* Journal of Business Ethics, 2007. **72**(2): p. 131-148.
7. Gaski, J.F., *Does marketing ethics really have anything to say?–A critical inventory of the literature.* Journal of Business Ethics, 1999. **18**(3): p. 315-334.
8. Cheng, H.-F., et al., *Measuring perceived EC ethics using a transaction-process-based approach: Scale development and validation.* Electronic Commerce Research and Applications, 2014. **13**(1): p. 1-12.
9. Agag, G. and A.A. El-Masry, *Understanding consumer intention to participate in online travel community and effects on consumer intention to purchase travel online and WOM: An integration of innovation diffusion theory and TAM with trust.* Computers in human behavior, 2016. **60**: p. 97-111.
10. Limbu, Y.B., M. Wolf, and D. Lunsford, *Perceived ethics of online retailers and consumer behavioral intentions: The mediating roles of trust and attitude.* Journal of Research in Interactive Marketing, 2012. **6**(2): p. 133-154.
11. Sherwin, D.S., *The ethical roots of the business system.* Harvard Business Review, 1983. **61**(6): p. 183-192.
12. Shanahan, K.J. and M.R. Hyman, *The development of a virtue ethics scale.* Journal of Business Ethics,

2003. **42**(2): p. 197-208.

13. Barnett, C., et al., *Consuming ethics: articulating the subjects and spaces of ethical consumption.* Antipode, 2005. **37**(1): p. 23-45.

14. Bartels, R., *A model for ethics in marketing.* The Journal of Marketing, 1967: p. 20-26.

15. Hunt, S.D. and S. Vitell, *A general theory of marketing ethics.* Journal of macromarketing, 1986. **6**(1): p. 5-16.

16. Stead, B.A. and J. Gilbert, *Ethical issues in electronic commerce.* Journal of Business Ethics, 2001. **34**(2): p. 75-85.

17. Limbu, Y.B., M. Wolf, and D.L. Lunsford, *Consumers' perceptions of online ethics and its effects on satisfaction and loyalty.* Journal of Research in Interactive Marketing, 2011. **5**(1): p. 71-89.

18. Ngo, V.Q., *The Effects of Perceived Technology, Perceived Online Ethics on Consumer Trust in Website and Trust in E-Retailer.* The International Journal of Business & Management, 2015. **3**(11): p. 255.

19. Yang, M.-H., et al., *The effect of perceived ethical performance of shopping websites on consumer trust.* Journal of computer information systems, 2009. **50**(1): p. 15-24.

20. Agag, G. and A.A. El-Masry, *Understanding the determinants of hotel booking intentions and moderating role of habit.* International Journal of Hospitality Management, 2016. **54**: p. 52-67.

21. Zeithaml, V.A., A. Parasuraman, and A. Malhotra, *Service quality delivery through web sites: a critical review of extant knowledge.* Journal of the academy of marketing science, 2002. **30**(4): p. 362-375.

22. Wolfinbarger, M. and M.C. Gilly, *eTailQ: dimensionalizing, measuring and predicting etail quality.* Journal of retailing, 2003. **79**(3): p. 183-198.

23. Elbeltagi, I. and G. Agag, *E-retailing ethics and its impact on customer satisfaction and repurchase intention: a cultural and commitment-trust theory perspective.* Internet Research, 2016. **26**(1): p. 288-310.

24. Adams, J., et al., *Research methods for graduate business and social science students*. 2007: SAGE publications India.

25. Bagozzi, R.P. and Y. Yi, *On the evaluation of structural equation models.* Journal of the academy of marketing science, 1988. **16**(1): p. 74-94.