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Article

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MARKETING | RESEARCH ARTICLE

Justice and trustworthiness factors affecting customer loyalty with mediating role of satisfaction with complaint handling: Zalo OTT Vietnamese customer case

Nguyen Ngoc Quang¹ and Dao Cam Thuy^{2*}

Abstract: The main objective of this research is to expand the satisfaction with complaint handling theory to the OTT (Over The Top) application by examining the perceptions of justice and trustworthiness factors affecting customer loyalty mediating role of satisfaction complaint handling. A quantitative online survey was conducted based on a questionnaire of 520 Vietnamese users who have had complaints about Zalo OTT service in 2022. Confirmatory factor analysis was used to



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Quang Nguyen Ngoc is a lecturer of Marketing at Marketing Faculty – National Economics University (Vietnam). His research interests focus on consumer behavior and marketing management; recent studies related to customer behavioral psychology in retail banking, telecommunications services and mindfulness in hotel services. He is co-author of several books on marketing management and papers in *Journal of Engineering and Technology Management*, *Cogent Business & Management*, *International Journal of Psychosocial Rehabilitation* and *International Journal of Advanced Science and Technology*.

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PUBLIC INTEREST STATEMENT

The article's main objective is to expand the satisfaction with complaint handling theory to the OTT (Over The Top) application by examining the perceptions of justice and trustworthiness factors affecting customer loyalty with mediating role of satisfaction with complaint handling. Findings show that satisfaction with complaint handling is strongly influenced by consumer trustworthiness and three subfactors of justice (distributive justice, procedural justice, and interactional justice); it also plays a mediating role in the impact of justice and trustworthiness factors on customer loyalty. However, customer trustworthiness had the strongest direct impact on customer loyalty. This research can be used as a model in which firms base themselves on creating customer loyalty by manipulating justice, trustworthiness, and satisfaction with complaint-handling factors.

evaluate the reliability and validity of scales; then, structural equation modeling was used to assess the fitness of the research model, formulated hypotheses and the indirect relationships. Findings show that satisfaction with complaint handling is strongly influenced by consumer trustworthiness and three subfactors of justice; it also plays a mediating role in the impact of justice and trustworthiness factors on customer loyalty. However, customer trustworthiness has the strongest direct impact on customer loyalty. This research can be used as a model on which firms will base themselves to create customer loyalty by manipulating justice, trustworthiness and satisfaction with complaint-handling factors.

Subjects: Consumer Behaviour; Marketing Management; Relationship Marketing; Services Marketing; Brand Management

Keywords: Satisfaction with complaint handling; loyalty; trustworthiness; justice theory

1. Introduction

Service failures occur in online services more frequently than in traditional ones (Harris et al., 2006). At that time, customers could completely post their negative comments on review platforms, then online service providers have to handle these comments and take corrective action if necessary. Furthermore, malfunctioning to deal with client dissatisfaction denotes a lot of failures such as declining trustworthiness, customers leaving, and causing negative word of mouth, which is more influential than positive word of mouth (Berry & Parasuraman, 1991). Satisfaction with complaint handling has been imperative for corporates to keep positive customer relationships and rebuild customer loyalty in online services (Sparks et al., 2016).

Satisfaction with complaint handling (SATCOM) and trustworthiness are essential for customer retention and business profitability (Holloway et al., 2005). Research on customer behavior (Beazeale, 2009) shows that the cost of persuading a new client is five times higher than that of an existing client. There is a clear difference between well-managed or poorly-managed SATCOM and trustworthiness companies (Hart et al., 1990). Successful companies often encourage customers' complaints through policies of "active cooperation", then act to interact with the company to obtain SATCOM and trustworthiness; while most others (less successful) often take a passive approach to managing SATCOM and trustworthiness (Firnsthahl, 1989). Previous studies focus on empirical tests of the impact of consumer complaints handling on consumer loyalty (Luo et al., 2016; Tarhini & Hayek, 2021; Xu et al., 2019).

Previous studies experienced by empirical evidence indicate that SATCOM and trustworthiness impact on customer retention and loyalty (Smith et al., 1999; Tax et al., 1998). Other studies on the topic of online complaints are quite diverse, related to omnichannel service failures and recoveries using Facebook complaints (Rosenmayer et al., 2018); online complaint management system (Bhadouria, 2021); the impact of complaint handling on customers' satisfaction and loyalty in online shopping (Tarhini & Hayek, 2021); model of drives purchase intention for paid mobile apps with perceived value (Hsu & Lin, 2014); model of online impacting factors complaint intention and service recovery expectation in the case of e-banking service in Vietnam (Q. Nguyen et al., 2021); the relation between service quality, customer satisfaction, complaints, and loyalty in online shopping environment in Pakistan (Wattoo & Iqbal, 2022). Orsingher et al. (2010) and Santos and Fernandes (2011) studied the impact of justice factors on SATCOM and other dependent variables such as trust in the firm's site, trust in online retailing ambient online and customer loyalty. Nevertheless, very few studies conducted on this issue have focused on the online service environment, especially OTT (Over The Top) applications.

Zalo (OTT application) allows users to text and call other users on mobile or computer platforms, launched in 2012 by VNG (Vietnam's leading internet & technology company). It is a premier

chatting platform, which had more than 100 million users worldwide in 2019; it witnesses 900 million messages, 50 million minutes of calls and 45 million pictures delivered daily via the Zalo app. There is a list of Zalo features including text messaging; images, stories and multimedia sharing; group activities; updating information from official accounts of organizations, brands, and celebrities; consumer loan services; transportation bookings; public transport information; doctor appointment bookings; news feeds; weather updates; payment by Zalo Pay; shopping by Zalo shop and so on. It is considered a “super app” which provides users with a range of features beyond the app’s primary purpose. (<https://www.vng.com.vn/index.html>).

The new finding of this study is to evaluate simultaneously the impact of justice theory and trustworthiness on customer loyalty with mediating role of SATCOM in the context of OTT service. A theoretical framework was created and verified by confirmatory factor analysis (CFA) to evaluate the research results based on a comparison with previous research. Therefore, the purpose of the research includes (1) evaluating the cause-and-effect relationship among the justice factor, SATCOM, trustworthiness, and the loyalty factor, (2) testing the mediating role of SATCOM. Besides the quantitative model tested in this study will help administrators of OTT services develop solutions to get and maintain customer loyalty and positive word of mouth as well as bring satisfaction to their complaints.

2. Theory background

2.1. Research overview

2.1.1. Justice theory

The concept of justice is often mentioned in social transactions (Wu, 2013). Researchers in this field emphasize the role justice plays in shaping subsequent transactions (Awa et al., 2016; Smith et al., 1999; Tia Vialdo Ginting & Nazaruddin, 2020; Voorhees & Brady, 2005). Colquitt et al. (2001) synthesized 183 studies related to the topic of justice and classified them into three groups: Distributive justice, Procedural justice, and Interactional justice.

There are a lot of studies in service that have identified the relationship between justice theory and customer satisfaction (Awa et al., 2016; Holloway et al., 2005; Martínez-Tur et al., 2006; Tia Vialdo Ginting & Nazaruddin, 2020). Research by Martínez-Tur et al. (2006) in the field of hotel-restaurant shows that interactional justice is the factor having the strongest impact compared to the other two factors. Maxham and Netemeyer (2002) have a study in the construction field giving the conclusion that procedural justice and interactional justice have a stronger impact on satisfaction than distributive justice. Research results of other authors also show that there is an impact of justice on satisfaction with different weights by countries and fields (Tarhini & Hayek, 2021).

Distributive justice: Refers to the perception that an individual evaluates the justice of an exchange by comparing the costs and benefits received from the exchange (Awa et al., 2016; Martínez-Tur et al., 2006; Tia Vialdo Ginting & Nazaruddin, 2020). Smith et al. (1999) demonstrated that the perception of distributive justice has an effect on customer satisfaction, thereby affecting the intention to complain.

Procedural justice: It was mentioned by Leventhal (1980); Awa et al. (2016), and Tia Vialdo Ginting and Nazaruddin (2020) with six criteria, which people may assess whether a provisioning procedure is fair or unfair. In short, provision procedures will be perceived as fairer if they (1) are applied consistently by people and over time (consistency criteria), (2) prevent personal self-interest and “blind allegiance to narrow preconceptions” (bias suppression criteria), (3) ensure that decisions are based on as much good information and informed opinion as possible (accuracy criteria), (4) provide opportunities to modify and reverse incorrect decisions (correctability criteria), (5) reflect the concerns of all subgroups and individuals who may be affected by them

(representativeness criteria), (6) are “compatible with prevailing moral and ethical values accepted by the individual” (ethicality criteria). Many studies show that individuals who believe in procedural justice are more satisfied with outcomes, even if they are unfavorable (Krehbiel & Cropanzano, 2000; Lind & Tyler, 1988; Tia Vialdo Ginting & Nazaruddin, 2020).

Interactional justice: Bies and Moag (1986) separated the individual-related aspects of procedural justice and called the concept interactional justice. Interactional justice is justice perceived through individual behavior (of employees) that clients receive in the decision-making process (Awa et al., 2016; Burton et al., 2005; Martínez-Tur et al., 2006; Tia Vialdo Ginting & Nazaruddin, 2020). There are four criteria for assessing interactive justice: (1) Justification for the decision; (2) Honesty; (3) Respect; (4) Degree of exclusivity. The research of Son and Kim (2008) introduces the concept of interactional justice as the degree to which online customers perceive the company's honesty and trustworthiness in complying with its commitments related to individual information security.

2.1.2. Trustworthiness

Trustworthiness is defined by Pavlou (2003) as a belief in certain interactions, and it is difficult to forecast their outcomes. According to Hoffman et al. (1999), trustworthiness is the extent to which consumers feel certain and less risky in their online service. The earlier works show that the customers' trustworthiness in internet service is an important factor affecting their online shopping behavior (Gefen et al., 2003; N. Q. Nguyen et al., 2020; Pavlou, 2003; Wen et al., 2011). Lack of trust has been recognized as one of the main reasons preventing consumers from connecting to online services (Jarvenpaa et al., 2000; Tia Vialdo Ginting & Nazaruddin, 2020). Trustworthiness was examined by the previous works from three main perspectives which are online seller characteristics, application characteristics, and customer characteristics (Chiu et al., 2009). The seller's characteristics include size and reputation (Benedicktus et al., 2010). In this study, trustworthiness refers to a belief in online OTT apps that will deliver quality OTT service as committed.

2.1.3. Satisfaction with complaint handling—SATCOM

Customer satisfaction is the post-purchase judgment followed by a consumption experience; it possesses both cognitive and affective factors (Bhadouria, 2021; Bitner, 1990; Oliver, 1999; Rosenmayer et al., 2018). Crosby and Stevens (1987) identified three dimensions of service satisfaction including employee satisfaction, organization satisfaction, and core service satisfaction. In this context, the last dimension is concentrated on research.

Satisfaction is related to evaluations of justice in several complain circumstances (Messick & Cook, 1983). It is broadly known that consumer satisfaction with the complaint outcomes from the evaluation of features concerning the ending results, which means they get distributive justice. The process solving is directed to the result, which means they get procedural justice and the way that the client has been serviced and communicated throughout the incident. This means they get interactional justice. Moreover, customers also rate the fairness of these three factors (Liao, 2007; Orsingher et al., 2010). Narayan et al. (2021) researched the SATCOM and its effect on customer loyalty for micro, small and medium-sized enterprises in a business-to-business situation. The result shows that SATCOM is a significant factor in customer retention. Wattoo and Iqbal (2022) tested the relationship between service quality, client satisfaction, complaints, and loyalty in the online environment in Pakistan, the results show that the handling of complaints affects service quality, customer satisfaction as well as customer loyalty.

2.1.4. Loyalty

Customer loyalty has two factors including customer repurchase intention and positive WOM (Awa et al., 2016; Reichheld & Scheffer, 2000). Theoretical and empirical research highlight trustworthiness as a major factor in the long time relationships between customers and businesses (Agustin & Singh, 2005; Dao Cam & Nguyen Ngoc, 2022; Morgan & Hunt, 1994; N. Q. Nguyen et al., 2020; Nooteboom et al., 1997). The research of Luo et al. (2016), Xu et al. (2019) and Tarhini and Hayek

(2021) also implemented empirical tests on the impact of consumer complaints handling on customer loyalty. In online services, trustworthiness seems to be much more important because of no physical interaction and the tangible characteristics are in the conventional transaction. Thus, the e-service will be dependent on credibility and trustworthiness between customers and a positive attitude toward the online service in the future. These arguments have been confirmed by N. Q. Nguyen et al. (2020), Pavlou (2003), Santos and Fernandes (2011) established the relationship between trustworthiness and loyalty in the online context.

2.2. Research hypotheses

Based on the synthesis of the studies mentioned above, the proposed model has provided the relationship between different factors in Figure 1 below. Finally, it can determine whether the proposed factors impact consumers' loyalty with two sub-factors which are return intentions and word of mouth.

2.2.1. Research model factors

Independent factors affecting SATCOM include procedural justice, interactional justice, distributive justice and the trustworthiness factor.

Independent factors affecting the dependent factor of loyalty with mediating role of SATCOM include procedural justice, interactional justice, distributive justice and the trustworthiness factor.

The independent factor of trustworthiness affects the dependent factor of loyalty.

2.2.2. Research hypotheses

H1a: Procedural justice perceptions affect positively SATCOM.

H1b: Interactional justice perceptions affect positively SATCOM.

H1c: Distributive justice perceptions affect positively SATCOM.

H2a: The effects of perceptions of procedural justice on loyalty are mediated by SATCOM.

H2b: SATCOM mediates the relationship between the perceived effect of interactive justice on loyalty.

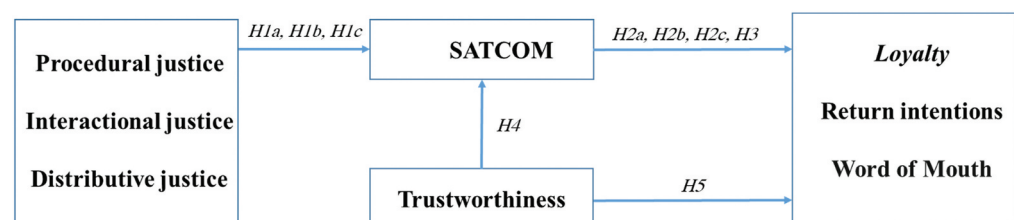
H2c: SATCOM mediates the relationship between the perceived effects of distributive justice on loyalty.

H3: SATCOM will have a positive impact on loyalty.

H4: Trustworthiness will have a positive impact on loyalty.

H5: The effects of trustworthiness on loyalty are mediated by SATCOM.

Figure 1. Proposed research model.



2.2.3. SATCOM and trustworthiness

The outcomes of SATCOM and trustworthiness are illustrated by the customer satisfaction theory, return intentions and word-of-mouth behavior (Reichheld & Schefter, 2000; Wattoo & Iqbal, 2022). Return intention is considered an indicator of attitudinal loyalty and is determined as the ability to buy in the future from the same seller. In this situation, the service provider is related to the error/recovery situation (Bhadouria, 2021; Holloway et al., 2005; Rosenmayer et al., 2018). Return intention is a particularly important behavior after giving complaints about customer disappointment, then feeling satisfied with the way the firm has handled their problems (Maxham, 2001; Q. Nguyen et al., 2021). The strong positive relationship between SATCOM and trustworthiness with return intention is consistent in this research. WOM comprises delivering potential clients an idea about the firm or its product. In SATCOM, a service provider could change clients' mindsets by blowing out positive ideas and safeguarding SATCOM (Maxham, 2001; Q. Nguyen et al., 2021). This study has recognized the existence of a positive relationship between SATCOM and trustworthiness with WOM. If complaints are successfully resolved, the negative WOM will be reduced, then clients could recommend the online service to others such as friends and relatives (Blodgett et al., 1997; Maxham, 2001; Orsingher et al., 2010; Q. Nguyen et al., 2021; Santos & Fernandes, 2011).

2.2.4. The mediational role of SATCOM

The model in Figure 1 suggests the impact of justice factors (distributive, procedural, interactional justice) on loyalty (return intention and WOM) are indirect by their effects on SATCOM; the effect of trustworthiness on loyalty is both side direct and indirect way. This argument is compatible with other complaint handling and trustworthiness studies, in which satisfaction is usually the essential mediating factor that mediates justice factors and loyalty factors (Ambrose et al., 2007; Orsingher et al., 2010; Santos & Fernandes, 2011). Nevertheless, researchers have not always clearly analyzed mediation, many researchers have not integrated SATCOM factors in their frameworks, they indirectly consider SATCOM as the driver factor of WOM return intention, and overall satisfaction (Orsingher et al., 2010; Santos & Fernandes, 2011). Some other researchs assumes the mediating role of SATCOM between justice factors and outcome factors without checking for mediation (Orsingher et al., 2010; Santos & Fernandes, 2011). With the mediating role of SATCOM, the authors give a hypothesis on the impacts of the justice factors and trustworthiness on loyalty.

3. Research methodology

3.1. Measurement scale

The questionnaire was designed to cover all components of the research framework presented in Figure 1. Scaled measures modified from prior studies on *Satisfaction with Complaint handling* literature were applied. The measures of procedural (6 items), interactional (6 items), distributive justice (4 items), and satisfaction with complaint handling (3 items) were brought from Tax et al. (1998); trustworthiness (8 items; 4 related to trust in the Zalo App and 4 related to trust in the online communication situation) were modified from Sirdeshmukh et al. (2002); return intention (4 items) and positive word-of-mouth (3 items) were modified from Oliver (1999). Study constructs have been created as Table 1 follows.

3.2. Research sample

The questionnaire was written in both Vietnamese and English for the convenience of respondents. Two other independent translators then retranslated the question form from Vietnamese to English and vice versa to confirm its validity. The final bilingual questionnaire was presented to a small number of customers of the Zalo OTT App to confirm that it was understandable to the respondents.

The authors conducted a survey by an online google form. It also was supported by Zalo App's database. The respondents are users who have used the Zalo service since January 2022 and had been disappointed and left their complaints about the Zalo OTT service. Zalo currently has many channels to receive customer feedback such as <https://developers.zalo.me>, <https://oa.zalo.me>,

Table 1. Measurement scale

Variable	Source
Procedural justice	Tax et al. (1998)
1. I can talk to them in detail about my problem with Zalo OTT service	
2. I am given some control over the outcome of the complaint with Zalo OTT service	
3. My complaints are answered quickly with Zalo OTT service	
4. To accommodate my needs, they have adjusted their complaints handling procedures with Zalo OTT service	
5. I get support to voice my complaints with Zalo OTT service	
6. They took responsibility for my complaint with Zalo OTT service	
Interactional justice	Tax et al. (1998)
1. They (Zalo OTT service) communicated honestly with me	
2. They (Zalo OTT service) were courteous to me	
3. I was given a reasonable explanation as to why the original problem occurred with the Zalo OTT service	
4. They seemed very concerned about my problem with Zalo OTT service	
5. They did everything to solve my complaint with Zalo OTT service	
6. They apologized for the problem with Zalo OTT service	
Distributive justice	Tax et al. (1998)
1. The result of the complaint with Zalo OTT service was fair	
2. In resolving the complaint, Zalo gave me what I needed	
3. The result of the complaint with Zalo OTT service was what I expected	
4. In resolving the complaint, Zalo tried hard to give me what I expected	
Satisfaction with Complaint handling - SATCOM	Tax et al. (1998)
1. I was happy with how Zalo OTT service handled my complaint	
2. I was pleased with how the complaint with Zalo OTT service was dealt with	
3. Overall I was satisfied with the way the complaint with Zalo OTT service was handled	
Trustworthiness	Modified from Sirdeshmukh et al. (2002)
Customer Trust in the Zalo OTT application	
<i>I feel that the Zalo OTT application is:</i>	
1. Very Undependable/Very Dependable	
2. Very Incompetent/Very Competent	
3. Of Very Low Integrity/Of Very High Integrity	
4. Very Unresponsive to Customers/Very Responsive to Customers	
Customer Trust in the Online service of the Zalo OTT application	
<i>I feel that the Online service of the Zalo OTT application is:</i>	
1. Very Undependable/Very Dependable	
2. Very Incompetent/Very Competent	
3. Of Very Low Integrity/Of Very High Integrity	
4. Very Unresponsive to Customers/Very Responsive to Cust	

(Continued)

Table 1. (Continued)

Variable	Source
loyalty factor	Modified from Oliver (1999)
Return intentions	
1. I will use Zalo OTT service again	
2. I will use more Zalo OTT services in the future	
3. I consider Zalo OTT service as my number one choice to use related services?	
4. I will use the new application of Zalo OTT service	
Word of Mouth	
1. I will recommend Zalo OTT service to colleagues, relatives, neighbors, and friends	
3. I will use both online and offline channels to speak well about Zalo OTT service to colleagues, relatives, neighbors, and friends	
3. I will encourage and recommend your colleagues, relatives, neighbors, and friends to use Zalo OTT service	

hotline: 1900 561 558, and feedback@zalo.me. In which feedback@zalo.me is commonly used by individual users to respond to service failures. Therefore, approximately 520 completed questionnaires were collected randomly from the feedback@zalo.me database for the study.

The questionnaire included 34 variables; therefore, with at least 5 observations for each variable (Bentler & Chou, 1987), the minimum sample size is $34 \times 5 = 170$ observations. However, to increase the quality of the research, 520 valid questionnaires have been collected. All of the variables are five points Likert scale, with the rating scale as follows: (1) totally disagree to (5) totally agree. Data were analyzed on SPSS 22 and AMOS 21 software to test the relationships between factors and for structural equations modeling analysis, and to qualify the validity of scales and reliability.

4. Research findings

4.1. Measuring the validity of scales and reliability

The exploratory factor analysis (EFA) has been conducted to make sure the uni-dimensionality of the hidden variable and factor, explicitly principal factor analysis (Promax rotation) which ensued in the independence of factors. According to the recommendations of Anderson and Gerbing (1988), preceding investigative structure equation modeling, the convergent and discriminant factor validity has been performed by Confirmatory Factor Analysis (CFA) with AMOS software. Table 2 below indicates the findings of this investigation.

According to Hair et al. (2006), the appropriate indicators show the model fit with the succeeding standards: $\text{Chi-square/DF} < 5$, $\text{GFI} > 0.9$, $\text{CFI} > 0.9$, $\text{RMSEA} < 0.1$, with a large enough sample size. The results in Table 2 show that the model suits the investigation data. Therefore, trustworthiness and loyalty factors get convergent validity. In short, measurement models are good in theory and practice. In the following part, the authors examined the full model fit with Structural Equations Modeling. In this way, the authors evaluated the effect of the justice factor and trustworthiness factor on the dependent loyalty factor and SATCOM (SATF) mediating role.

Furthermore, the authors evaluated the Composite Reliability (CR) and the Average Variance Extracted (AVE) to assess the scale reliability. According to Hair et al. (2006), the scale is considered a convergent value and the observed variable is not correlated with other observed variables in the same factors when $\text{CR} > 0.7$ and $\text{AVE} > 0.5$. Table 3 shows the results of CR and AVE.

Table 2. Exploratory factor analysis and confirmatory factor analysis				
	Justice Factor* ¹ PRJ1-PRJ5 INJ1-INJ6 DIJ1-DIJ4	Trustworthiness** TRU1-TRU4 TRU5-TRU8	SATCOM SAT1-SAT3	Loyalty*** RET1-RET4 WOM1-WOM3
Cronbach's α	0.834; 0.865; 0.727	0.806 & 0.772	0.868	0.818 & 0.792
KMO test	0.839	0.851	0.866	0.848
Bartlett	$p < 0.05$	$p < 0.05$	$p < 0.05$	$p < 0.05$
EFA	23.18%; 21.06; 17.78	36.52% & 26.12%	66.385%	35.63% & 27.41%
CFA	5.614	4.198	4.117	4.679
Chi-square/Df				
GFI	0.927	0.938	0.957	0.964
CFI	0.919	0.947	0.963	0.978
RMSEA	0.065	0.054	0.045	0.063

Source: Author's primary research

^{1*} Justice factor (PRJF) has been built from three sub-factors including the first sub-factor, procedural justice (PRJ) through 5 variables (PRJ1-PRJ5), interactional justice (INJ) through 6 variables (INJ1-INJ6) and distributive justice (DIJ) through 4 variables (DIJ1-DIJ4).

^{**}Trustworthiness Factor (TRUF) has been built from two sub-factors (1) TRU1-TRU4 Consumer trust in the firm's website (Zalo OTT application); (2) TRU5-TRU8 Consumer trust in the online service of Zalo OTT application.

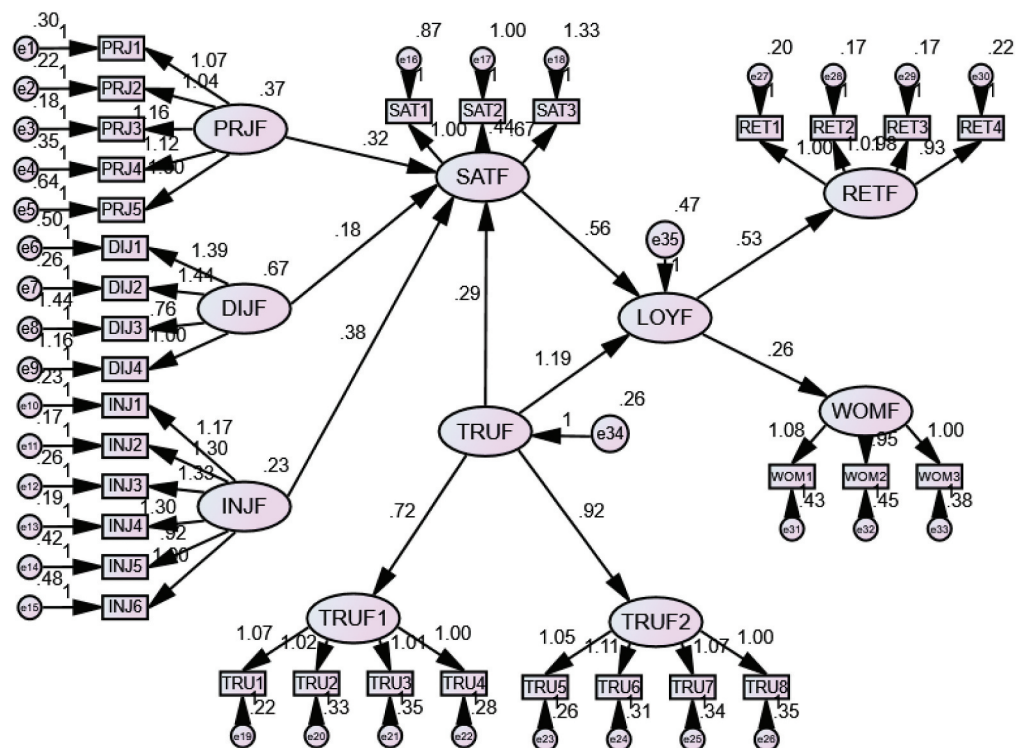
^{***}Loyalty Factor (LOYF) has been built from two sub-factors including the consumer return intentions (RET) through 4 variables (RET1-RET4) and positive WOM (WOMF) through 3 variables (WOM1-WOM3).

Table 3. Results of CR and AVE of scales

No.	Scale	Number of observed variables	CR	AVE
1	Procedural justice	5	0.773	0.587
2	Interactional justice	6	0.723	0.671
3	Distributive justice	4	0.810	0.653
4	Consumer trust in the firm's website	4	0.810	0.596
5	Consumer trust in the online service of the Zalo OTT application	4	0.744	0.625
6	Satisfaction with Complaint handling	3	0.774	0.623
7	consumer return intentions	4	0.731	0.562
8	Word of Mouth	3	0.785	0.634

Source: Author's primary research

Figure 2. Structural equation model.



Through the result of CR and AVE, it can be determined that the scale obtained from the formal quantitative investigation is qualified for the research model and the research hypotheses.

In addition, the authors used Harman's single-factor test for 33 variables in the model, the threshold value is 36.43% (less than 50%), thus there is no common method bias.

Table 4. Hypothesis results

Hypotheses	Linkage	Estimate	P-value	Result
H1a	PRJF→SATF	.32	***	Supported
H1b	INJF→SATF	.38	***	Supported
H1c	DIJF→SATF	.18	***	Supported
H3	SATF→LOYF	.56	***	Supported
H4	TRUF→LOYF	1.19	***	Supported

Source: Author's primary research

Table 5. Direct – indirect – total effect hypothesis results

Hypotheses	Linkage	Direct Effect	Indirect Effect	Total Effect	Result
H2a	PRJF→SATF→LOYF	.00	.178	.178	Supported
H2b	INJF→SATF→LOYF	.00	.211	.211	Supported
H2c	DIJF→SATF→LOYF	.00	.103	.103	Supported
H5	TRUF→SATF→LOYF	1.187	.162	1.349	Supported

Source: primary research

4.2. Evaluating the structural model by CFA and Structural Equations Modeling (SEM)

The predictable calculations of the structural equation model are displayed in Figure 2 as follows: Chi-square/DF = 4.94; GFI = 0.923; CFI = 0.931; RMSEA = 0.064.

According to Hair et al. (2006), the results related to suitable models change from situation to situation and be contingent expressively on the sample size, quantity of measured variables, and the commonalities of the factors. In this structural equation model, almost of fit indices are attempted with good results. The structural equation model is presented in Figure 2 and Table 4 shows the hypothesis results.

The results show that three subfactors of justice (procedural justice, interactional justice, and distributive justice) have a significantly positive impact on SATCOM with the unstandardized regression weights are 0.32; 0.38; 0.18 respectively, so hypotheses H1a, H1b, H1c are supported. The regression weights also show that procedural justice and interactional justice are much more important than distributive justice in this case. SATCOM (SATF) also has a significantly positive impact on the loyalty factor (LOYF), the unstandardized regression weight is 0.56, so H3 is supported. The trustworthiness factor (TRUF) has a significant and positive impact on the loyalty factor (LOYF), the unstandardized regression weight is 1.19, so H4 is supported with the strongest value.

The figures of Table 5 show that SATCOM (SATF) mediates the relationship between procedural justice (PRJF) and loyalty factor (LOYF), indirect effect and total effects of unstandardized regression weights are 0.178, so H2a is accepted with marginal effectiveness. The combined direct and indirect effect of PRJF on LOYF is .178. That is, due to both direct (unmediated) and indirect (mediated) effects of PRJF on LOYF, when PRJF goes up by 1, LOYF goes up by 0.178. SATCOM (SATF) also mediates the relationship between interactional justice (INJF) and loyalty factor (LOYF), between distributive justice (DIJF) and loyalty factor (LOYF), total effects (indirect and direct effects) of unstandardized regression weights are 0.211 and 0.103 respectively, so H2b and H2c are accepted with marginal effectiveness. SATCOM factor (SATF) mediates the relationship between the trustworthiness factor (TRUF) and loyalty factor (LOYF), and the total effect of

unstandardized regression weights is 1.349 (indirect effect = 0.162 and direct effect = 1.187), so H5 is supported with the strongest efficiency.

5. Conclusions, implications, limitations and future research

5.1. Conclusions & implications

As the findings mentioned above, three factors of perceived justice, the factor of distributive justice has the weakest impact on SATCOM. This result is consistent with the characteristics of Zalo OTT services because its applications are completely free. The other two factors, interactive justice and procedural justice, have a stronger impact on SATCOM, in which interactive justice has the strongest impact. This finding suggests that complaining customers will assess the quality of the interaction and solutions of Zalo OTT service, the strongest effect on their loyalty than the perceived fairness of procedures and distributions. This result suggests Zalo administrators in improving satisfaction after customer complaints by automated distribution systems, limiting response time (as fast as possible) and having a feedback monitoring system (like call recording of contact center system) to control the consistency and quality of each customer feedback using the service

On the other hand, the staff's empathy, politeness, and willingness to give rational clarifications are extremely associated with SATCOM. The important role of personal communication has long been considered a key factor in service quality (Hsu & Lin, 2014; Zeithaml et al., 1990). In fact, when customers give complaints, they want fair interaction and help with their problems immediately. These three factors also have an indirect impact on customer loyalty with decreasing weights. Besides, the impact on return intention behavior is stronger than WOM. In research on administrative service, Hsu and Lin (2014) argued that individuals depend on interaction justice when choosing how to respond to authority appears, while they rely on procedure justice when choosing how to respond to the organization. In service circumstances, complaints are regularly handled by employee interaction; consequently, customers may believe in the interaction more than the procedure factor of justice. To enhance interactive effects with customers, Zalo needs to have a strict complaint resolution process, and employees who communicate directly with customers also need to be trained in a way to know how to interact with customers in different situations.

Trustworthiness with two subcomponents including client trust in the firm's Zalo OTT application (website) and customer trust in the online service of Zalo OTT application has the strongest impact on customer loyalty. Additionally, trustworthiness has an indirect impact on client loyalty through SATCOM, which reminds managers of the greater importance of trustworthiness in this model. This result is consistent with the study of Luo et al. (2016), Xu et al. (2019) and Tarhini and Hayek (2021). This can be a good suggestion for managers to create and reinforce customer trust with the website and Zalo online service by improving the speed of application access, and innovating the interface of the website or application to be friendly and convenient for customer behavior.

Justice factors and trustworthiness affecting customer loyalty with mediating role of SATCOM. Results of the mediating examination show that SATCOM is the bridge between the impact of justice and trustworthiness factors on return intention and word of mouth. This outcome is crucial for managers because positive WOM has an important impact on return intention. This also shows the reliability between what clients tell other clients and their intent to perform (Tarhini & Hayek, 2021). This result suggests that Zalo should evaluate customer satisfaction after they were resolved their complaints through various ways such as rating the app, leaving comments on social networks, or simply way like an automatic scoring system. In fact, Zalo has been applying part of the above suggestions. In addition, the application of artificial intelligence to handle customer complaints quickly, automatically and consistently also contributes to increased truthworthiness and loyalty to the Zalo application.

5.2. Limitations

Although this research develops the understanding of satisfaction with complaint handling, justice theory, trustworthiness, and loyalty; it does not comprise different roofs of satisfaction with complaint handling. The authors only referred to the concepts of justice theory and trustworthiness. For instance, this model does not contain the difficulty of the service disappointment among the satisfaction with complaint handling history. Furthermore, the authors are not able to incorporate in the model the service recovery elements and failure situation. Therefore, the possible prejudice for neglected variables exists, and this research model would be considered as a summary of the most general correlates of satisfaction with complaint handling. Second, other research proposes the relationship between satisfaction with complaint handling and its experiences and consequences may change with different kinds of services (Hsu & Lin, 2014; Luo et al., 2016; Xu et al., 2019), this research can not unravel the effect of different kinds of online service.

Future research

There are a lot of research topics concerning interactions among the factors of justice and its impact on customer trustworthiness, this will promote a better understanding of satisfaction with complaint-handling activities. The authors also boost the general knowledge of the role of switching costs and its direct or indirect impact on customer loyalty. There are also a lot of moderator factors that need to be investigated in the proposed model such as the attitude, and involvement of the client. The levels of the relationship between the customer, OTT service, and third parties can impact complainers' assessments of the recovery process and its consequences. Therefore, here are suggestions for future studies that include situational factors and individual customer factors.

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References

- Agustin, C., & Singh, J. (2005). Curvilinear effects of consumer loyalty determinants in relational exchanges. *Journal of Marketing Research*, 42(1), 96–108. <https://doi.org/10.1509/jmkr.42.1.96.56961>
- Ambrose, M., Hess, R. H., & Ganesan, S. (2007). The relationship between justice and attitudes: An examination of justice effects on event and system-related attitudes. *Organizational Behavior and Human Decision Processes*, 103(1), 21–36. <https://doi.org/10.1016/j.obhdp.2007.01.001>
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: a review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411–423. <https://doi.org/10.1037/0033-2909.103.3.411>
- Awa, H. O., Ukoha, O., Ogwo, O. E., & Wright, L. T. (2016). Correlates of justice encounter in service recovery and word-of-mouth publicity. *Cogent Business & Management*, 3(1), 1179613. <https://doi.org/10.1080/23311975.2016.1179613>
- Beazeale, M. (2009). Word of Mouse: An assessment of electronic word-of-mouth research. *International Journal of Market Research*, 51(3), 297–318.
- Benedickts, R. L., Brady, M. K., Darke, P. R., & Voorhees, C. M. (2010). Conveying trustworthiness to online consumers: Reactions to consensus, physical store presence, brand familiarity, and generalized suspicion. *Journal of Retailing*, 86(4), 322–335. <https://doi.org/10.1016/j.jretai.2010.04.002>
- Bentler, P. M., & Chou, C. P. (1987). Practical issues in structural modeling. *Sociological Methods & Research*, 16(1), 78–117. <https://doi.org/10.1177/0049124187016001004>
- Berry, L., & Parasuraman, A. (1991). *Marketing services: Competing through quality*. The Free Press.
- Bhadouria, L. S. (2021). Online complaint management system (2021). *Turkish J Comput Math Educa*, 12(6), 5144–5150.
- Bies, R. J., & Moag, J. S. (1986). Interactional Justice: Communication criteria of fairness. In R. J. Lewicki, B. H. Sheppard, & M. H. Bazerman (Eds.), *Research on Negotiation in Organizations* (Vol. 1, pp. 43–55). JAI Press.
- Bitner, M. (1990). Evaluating service encounters: The effects of physical surroundings and employee responses. *Journal of Marketing*, 54(2), 69–82. <https://doi.org/10.1177/002224299005400206>
- Blodgett, J. G., Hill, D. J., & Tax, S. S. (1997). The effects of distributive, procedural, and interactional justice on postcomplaint behavior. *Journal of Retailing*, 73(2), 185–210. [https://doi.org/10.1016/S0022-4359\(97\)90003-8](https://doi.org/10.1016/S0022-4359(97)90003-8)
- Burton, J. P., Mitchell, T. R., & Lee, T. W. (2005). The role of self-esteem and social influences in aggressive reactions to interactional injustice. *Journal of Business & Psychology*, 20(1), 131–170. <https://doi.org/10.1007/s10869-005-6995-8>

- Chiu, C. M., Chang, C. C., Cheng, H. L., & Fang, Y. H. (2009). Determinants of customer repurchase intention in online shopping. *Online Information Review*, 33(4), 761–784. <https://doi.org/10.1108/14684520910985710>
- Colquitt, J. A., Conlon, D. E., Wesson, M. J., Porter, C. O. L. H., & Ng, Y. K. (2001). Justice at the millennium: A meta-analytic review of 25 years of organizational justice research. *JOURNAL of Applied Psychology*, 86(3), 425–445. <https://doi.org/10.1037/0021-9010.86.3.425>
- Crosby, L. A., & Stevens, N. (1987). Effects of relationship marketing on relationship satisfaction, retention and prices in the life insurance industry. *Journal of Marketing Research*, 24(4), 404–411. <https://doi.org/10.1177/002224378702400408>
- Dao Cam, T., & Nguyen Ngoc, Q. (2022). Factors affecting satisfaction and intention to repurchase retail banking services in Vietnam. *Cogent Business & Management*, 9(1), 2137952. <https://doi.org/10.1080/23311975.2022.2137952>
- Firnstahl, T. W. (1989). My Employees are my service guarantee. *Harvard Business Review*, 4, 28–34. <https://hbr.org/1989/07/my-employees-are-my-service-guarantee>
- Gefen, D., Karahanna, E., & Straub, D. W. (2003). Inexperience and experience with online stores: The importance of TAM and trust. *Engineering Management, IEEE Transactions On*, 50(3), 307–321. <https://doi.org/10.1109/TEM.2003.817277>
- Hair, B., Babin, A., & Tatha. (2006). *Multivariate data analysis*. Pearson Prentice Hall.
- Harris, K. E., Grewal, D., Mohr, L. A., & Bernhardt, K. L. (2006). Consumer responses to service recovery strategies: The moderating role of online versus offline environment. *Journal of Business Research*, 59(4), 425–431. <https://doi.org/10.1016/j.jbusres.2005.10.005>
- Hart, C. W. L., Heskett, J. L., & Sasser, W. E. (1990). The profitable art of service recovery. *Harvard Business Review*, 68(4), 148–156.
- Hoffman, D. L., Novak, T. P., & Peralta, M. A. (1999). Building consumer trust in online. *Communications of the ACM*, 42(4), 80–85. <https://doi.org/10.1145/299157.299175>
- Holloway, B. B., Wang, S., & Parish, J. T. (2005). The role of cumulative online purchasing experience in service recovery management. *Journal of Interactive Marketing*, 19(3), 54–66. <https://doi.org/10.1002/dir.20043>
- Hsu, C. L., & Lin, J. C. C. (2014). What drives purchase intention for paid mobile apps?—An expectation confirmation model with perceived value. *Electronic Commerce Research and Applications*, 14(1), 46–57. 2015. <https://doi.org/10.1016/j.eleap.2014.11.003>
- Jarvenpaa, S. L., Tractinsky, N., & Vitale, M. (2000). Consumer Trust in an Internet Store. *Information Technology & Management*, 1(1–2), 45–71. <https://doi.org/10.1023/A:1019104520776>
- Krehbiel, P. J., & Cropanzano, R. (2000). Procedural justice, outcome favorability, and emotion. *Social Justice Research*, 13(4), 339–360. <https://doi.org/10.1023/A:1007670909889>
- Leventhal, G. S. (1980). What should be done with equity theory? In K. J. Gergen, M. S. Greenberg, & R. H. Willis (Eds.), *Social Exchange: Advances in Theory and Research* (pp. 27–55). Plenum Press.
- Liao, H. (2007). Do it right this time: The role of employee recovery in customer-perceived justice and loyalty after service failures. *JOURNAL of Applied Psychology*, 92(2), 475–489. <https://doi.org/10.1037/0021-9010.92.2.475>
- Lind, A. E., & Tyler, T. R. (1988). *The social psychology of procedural justice*. Plenum.
- Luo, H., Han, X., & Yu, Y. (2016). An empirical study on the effect of consumer complaints handling on consumer loyalty. In: *Service Systems and Service Management (ICSSSM)*, 2016 13th International Conference on, IEEE; 2016.
- Martinez-Tur, V., Peiró, J. M., Ramos, J., & Moliner, C. (2006). Justice perceptions as predictors of customer satisfaction: the impact of distributive, procedural, and interactional justice. *Journal of Applied Social Psychology*, 36(1), 100–119. <https://doi.org/10.1111/j.0021-9029.2006.00005.x>
- Maxham, J. G., III. (2001). Service recovery's influence on consumer satisfaction, positive word-of-mouth, and purchase intentions. *Journal of Business Research*, 54(1), 11–24.
- Maxham, J. G., III, & Netemeyer, R. G. (2002). Modelling customers perceptions of complaint handling over time: The effects of perceived justice on satisfaction and intent. *Journal of Retailing*, 78(4), 239–252. [https://doi.org/10.1016/S0022-4359\(02\)00100-8](https://doi.org/10.1016/S0022-4359(02)00100-8)
- Messick, D., & Cook, K. (1983). *Equity theory: Psycho and socio perspectives*. Praeger.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20–38. <https://doi.org/10.1177/002224299405800302>
- Narayan, G. V., Srinivasulu, Y., & Suhail, P. (2021). Importance of customer complaint handling satisfaction for MSMEs in B2B context. *SEDME (Small Enterprises Development, Management & Extension Journal)*, 48(1), 57–65. <https://doi.org/10.1177/09708464211054884>
- Nguyen, Q., Ngo, A., & Mai, V. (2021). Factors impacting online complaint intention and service recovery expectation: The case of e-banking service in Vietnam. *International Journal of Data & Network Science*, 5(4), 659–666. 2021. <https://doi.org/10.5267/j.jidns.2021.8.001>
- Nguyen, N. Q., Toan, N. D., Nhung, T. H., & Dung, N. Q. (2020). Factors Affecting The Decision To Use Apps For Providing Online Food Ordering Service To Consumers In Hanoi. *International Journal of Advanced Science & Technology*, 29(8s), 4558–4569.
- Nooteboom, B., Berger, H., & Noorderhaven, N. G. (1997). Effects of trust and governance relational risk. *Academy of Management Journal*, 40(2), 308–338. <https://doi.org/10.2307/256885>
- Oliver, R. L. (1999). Whence customer loyalty. *Journal of Marketing*, 63(4_suppl1), 33–44. <https://doi.org/10.1177/00222429990634s105>
- Orsingher, C., Valentini, S., & de Angelis, M. (2010). A meta-analysis of satisfaction with complaint handling in services. *Journal of the Academy Marketing Science*, 38(2), 169–186. <https://doi.org/10.1007/s11747-009-0155-z>
- Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce*, 7(3), 69–103.
- Reichheld, F. F., & Schefter, P. (2000). E-loyalty. Your secret weapon on the web. *Harvard Business Review*, 78(4), 105–113.
- Rosenmayer, A., McQuilken, L., Robertson, N., & Ogden, S. (2018). Omni-channel service failures and recoveries: Refined typologies using Facebook complaints. *The Journal of Services Marketing*, 32(3), 269–285. 2018. <https://doi.org/10.1108/JSM-04-2017-0117>
- Santos, C. P., & Fernandes, D. V. H. (2011). Perceptions of justice after recovery efforts in internet purchasing: The impact on consumer trust and loyalty toward retailing sites and online shopping in

- general. *BAR - Brazilian Administration Review*, 8(3), 225–246. <https://doi.org/10.1590/S1807-76922011000300002>
- Sirdeshmukh, D., Singh, S., & Sabol, B. (2002). Consumer trust, value and loyalty in relational exchanges. *Journal of Marketing*, 66(1), 15–37. <https://doi.org/10.1509/jmkg.66.1.15.18449>
- Smith, A. K., Bolton, R. N., & Wagner, J. (1999). A model of customer satisfaction with service encounter involving failure and recovery. *Journal of Marketing Research*, 36(3), 356–372. <https://doi.org/10.1177/002224379903600305>
- Son, J., & Kim, S. (2008). Internet users' information privacy-protective responses: A taxonomy and a nomological model. *MIS Quarterly*, 32(3), 503–529. <https://doi.org/10.2307/25148854>
- Sparks, B. A., So, K. K. F., & Bradley, G. L. (2016). Responding to negative online reviews: The effects of hotel responses on customer inferences of trust and concern. *Tourism Management*, 53, 74–85. <https://doi.org/10.1016/j.tourman.2015.09.011>
- Tarhini, B., & Hayek, D. (2021). The effect of proper complaint handling on customers' satisfaction and loyalty in online shopping. In *Business Revolution in a Digital Era* (pp. 405–421). 2021. Springer.
- Tax, S. S., Brown, S. W., & Chandrashekar, M. (1998). Customer evaluations of service complaint experiences: Implications for relationship marketing. *Journal of Marketing*, 62(2), 60–72. <https://doi.org/10.1177/002224299806200205>
- Tia Vialdo Ginting, A., & Nazaruddin, R. P. W. (2020). The effect analysis of handling complaint on trust, word of mouth and consumer loyalty with customer satisfaction as moderating variable. *International Journal of Research and Review* 7 (4), 2020. April. <https://doi.org/10.4444/ijrr.1002/1932>
- Voorhees, C. M., & Brady, M. K. (2005). A service perspective on the drivers of complaint intentions. *Journal of Service Research*, 8(2), 192–205. <https://doi.org/10.1177/1094670505279702>
- Wattoo, M. U., & Iqbal, S. M. J. (2022). Unhiding nexus between service quality, customer satisfaction, complaints, and loyalty in online shopping environment in Pakistan. *SAGE Open*, 12(2), 21582440221097920. 2022. <https://doi.org/10.1177/2158244022109792021>
- Wen, C., Prybutok, V. R., & Xu, C. (2011). An integrated model for customer online repurchase intention. *Journal of Computer Information Systems*, 52(1), 14–23.
- Wu, L. (2013). The antecedents of customer satisfaction and its link to complaint intentions in online shopping: An integration of justice, technology, and trust. *International Journal of Information Management*, 33 (1), 166–176. 2013. <https://doi.org/10.1016/j.ijim.2012.09.001>
- Xu, X., Liu, W., & Gursay, D. (2019). The impacts of service failure and recovery efforts on airline customers' emotions and satisfaction. *Journal of Travel Research*, 58(6), 1034–1051. 2019. <https://doi.org/10.1177/0047287518789285>
- Zeithaml, V. A., Parasuraman, A., & Berry, L. L. (1990). *Delivering quality service: Balancing customer perceptions and expectations*. The Free Press Division of Macmillan.