The Factors Influencing E-Customer Satisfaction and Its Impact on E-Customer Loyalty Moderated by Guanxi in Pandemic Era

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Abstract. The quality level of integration between the channels is important and becomes one of the most significant innovations in fashion industry. Besides, the logistics service quality can also influence the e-customer satisfaction and get the e-customer loyalty. This study is conducted to indicate the relationship between those variables for apparel. The research data will be collected using online questionnaire with 303 e-customers with omnichannel experience in fashion during pandemic era. This quantitative research will be analyzed by using Structural Equation Model. The finding of this research is the logistic service quality and omnichannel customer experience significantly influence e-customer satisfaction and e-customer loyalty. However, omnichannel integrated quality has no impact to e-customer satisfaction and e-customer loyalty, even moderated with guanxi. The novelty of this study is the use of guanxi as moderating. This research supports the fashion industry in e-commerce to get their customer satisfaction and customer loyalty.

Keywords: e-customer satisfaction, e-customer loyalty, logistic service quality, omnichannel, fashion industry

1. Introduction

In the modern era like today, the internet is a medium that is used by the public in all fields, and the examples we most often encounter are the use of the internet in communication and business. Internet usage in each region around the world compared to the total population continues to multiply during this pandemic era. In South East Asia region, the number of active social media users increase 69% compared to total population based on (Hootsuite, 2021). Since Pandemic Covid-19 in New Normal Era to Post Normal Era, mostly people doing online activities, increase 13.2% from January 2020 to January 2021. In the past month, the online retail visitation become the most global e-commerce activity in any device, such as online searching for a product or service then purchase in any device.

Digital customer as internet users and mobile phone users slightly increase since 2020, as the pandemic situation has brought about digital adoption splatter. Users tried new digital services, more than 1 in every 3 customers started doing online transaction. Mostly the customer's order are meals or groceries and electronics, however, fashion industry in e-commerce still stable even slightly increase. Most of the new digital consumers intend to continue their newfound post-pandemic ways. This condition is supported with data (Hootsuite, 2021), which 125.6% of the population have mobile connections, where 73.7% internet users and 61.8% active as social media users. This condition also found in report from e-Conomy SEA (2020). Indonesia's new digital consumers, 9 in 10, is the fourth biggest population in Asia, after Philippines, Thailand, and Vietnam, who will continue to use online transaction for e-commerce and online media.

Another point needs to be concerned by the digital business in this post normal era, not only being digital but also need to create strong connection with customer to get e-customer satisfaction. The company can use websites, social media, and mobile apps to grab their customer satisfaction. In mobile connectivity, with 345.3 million number of mobile connections, 66.85% of the population in Indonesia ready to be digital consumers with 60.18% affordability of devices and services (Hootsuite, 2021). With this phenomenon, e-commerce needs omnichannel to support their activities. After e-customer satisfied, mostly e-customer will be loyal. However, even the customer satisfied, they are not loyal in some cases. There is customer habit that can influence the e-customer loyalty. E-Customer Satisfaction not always linear or increase e-Customer Loyalty (Rodríguez-Torrico et al., 2020; Thakur, 2019).

During the pandemic, changing of customer habits drastically. In this pandemic era, mostly service quality, especially logistic service quality increase and logistic service quality needs to be concerned. Other fact, logistic service quality influence e-customer satisfaction and e-customer loyalty. However, in some cases, logistic service quality not slightly influence e-customer satisfaction (Berlianto, 2017).

Other research findings reveal that the quality of electronic services partially affects customer satisfaction (Lynch & Barnes, 2020).

2. Literature Review

2.1. E-Customer Loyalty

Loyalty is a huge researched construct in marketing literature. The continuity of customer usage becomes the ultimate goal of the company, even though initial product or service trials are critical steps in the adoption process. One of the key factors to a firm's achievement (Senić & Marinković, 2014). Loyalty as a behaviour that refers to the individual's overall enclosure to the brand or the company (Hallowell, 1996). Additionally, loyalty can also be defined as an attitude that reflects customers go over purchasing the same product or service from the same store, even there are other available alternatives in the market (Lenka et al., 2009).

2.2. E-Customer Satisfaction

The satisfaction of the customer is commonly illustrate as the discrepancy between the expectations before purchase and the judgements after purchase (Ghofar et al., 1988). The customer's appraisement of an e-retail's service with their prior respect of the purchasing experience can be explained as e-customer satisfaction. Thus, has been found to be the most important element assigning e-customer loyalty in both online and offline contexts. (Sai Vijay et al., 2019).

2.3. Logistic Service Quality

Electronic service quality can be defined as the extent to which a site can facilitate effective and efficient shopping, purchasing and delivery. Privacy and security are important component as a concept in logistic service quality. Tangible components, Fulfilment method, Informative actions can be indicated as that important component. In direct to customer in e-commerce, the impact of Logistics Service Quality (LSQ) on customer satisfaction was shown by current research (Cao & Li, 2018). These studies examined LSQ within company and customer context from a customer perspective. There are two LSQ factors: operational LSQ and relational LSQ. Operational LSQ is "the ability to perform the promised service dependably and accurately", while relational LSQ is "the store's (or service provider's) ability to understand customer needs and expectations".

2.4. Omnichannel Customer Experience

The findings discovered that these fashion consumers experience an emotional rollercoaster of positive and negative feelings throughout their omnichannel experience. The emotions identified in the data collection were classed as either positive or negative based upon the work of the channel. Customer Experience is explained as customers internal and subjective response to their interplay with a firm's point of interaction directly and indirectly (Lemon & Verhoef, 2016). The

experience of customers with some channels takes place during customer interaction with a retailer's various channels (Verhoef et al., 2015)

2.5. Omnichannel Integrated Quality

The physical and virtual channels integration through omnichannel service delivery is the point to the service quality enhancement (Hossain et al., 2020). The omnichannel integration quality services remain flaked and mostly conceptual. The integration and experience between channels are the focus of omnichannel business, where all customers freely choose the equal channels without any miss information or repetition. Channel integration quality is defined as the ability to provide customers with a seamless and unified service experience across different channels (Shen et al., 2018). As a result, we assure that channel integration quality is more aligned to address the concerns of omnichannel.

2.6. Guanxi

Guanxi (Nugroho et al., 2019) clarified as informal relationships between buyers and sellers that could form in a digital-based market environment, consisting of mutual understanding, reciprocity, and harmonious relationships. To achieve the business transaction, mutual understanding was defined as the basic of the guanxi created between the buyer and the seller with the fulfilment of several requirements by both parties. The second dimension is reciprocal favors were accounted as the exchanged of goodwill between parties, for creating a guanxi. A harmonious relationship was defined as the top raw material needed to obtain a guanxi relationship. Creating those relationship is the major focus of Chinese communications. Based on the previous studies, the concept of guanxi is defined as a kinship relationship based on mutual trust and harmony between two parties to achieve certain business benefits.

3. Hypothesis Development

As previous description, this research is started with finding some phenomenon around e-commerce in pandemic era with omnichannel experience, then investigating the factors that can influence E-Customer Satisfaction and get the loyalty from E-Customer. Specifically, the variables that influence the E-Customer Satisfaction and E-Customer Loyalty directly and indirectly in this research are Logistics Service Quality, Omnichannel Customer Experience, and Omnichannel Integrated Quality. With some gap founded while early exploring, *Guanxi* become moderating variable in this research.

3.1. The Relationship between Logistics Service Quality and E-Customer Satisfaction for Fashion Industry in Pandemic Era

The result from previous study that there are relationship between Logistics Service Quality and E-Customer Satisfaction in omnichannel capability, without providing

good services such as logistic service quality, it is not possible to achieve customer satisfaction. (Sorkun et al., 2020)

Hypothesis 1: Logistics Service Quality is positively associated with E-Customer Satisfaction.

3.2. The Relationship between Omnichannel Customer Experience and E-Customer Satisfaction for Fashion Industry in Pandemic Era

Consistency, freedom in channel selection, and synchronization as the indicator of Omnichannel Customer Experience has the big effect on customer satisfaction with omnichannel interaction as studied in Journal of Marketing Management by Rodrigues et.al, 2020.

Hypothesis 2: Omnichannel Customer Experience is positively associated with E-Customer Satisfaction

3.3. The Relationship between Omnichannel Integrated Quality and E-Customer Satisfaction for Fashion Industry in Pandemic Era

In omnichannel banking studied, found there is strong relationship between Omnichannel Integrated Quality and E-Customer Satisfaction. It explained that customer is looking to use the channel according to their convenience. (Manel Hamouda, 2019)

Hypothesis 3: Omnichannel Integrated Quality is positively associated with E-Customer Satisfaction.

3.4. The Relationship between E-Customer Satisfaction and E-Customer Loyalty for Fashion Industry in Pandemic Era

The case study for online shopping in Vietnam (Giao et al., 2020), has shown that there is relation between E-Customer Satisfaction and E-Customer Loyalty.

Hypothesis 4: E-Customer Satisfaction is positively associated with E-Customer Loyalty

3.5. The Relationship between E-Customer Satisfaction and E-Customer Loyalty with *Guanxi* as Moderating for Fashion Industry in Pandemic Era

Most of the research have approved there are strong relationship between E-Customer Satisfaction and E-Customer Loyalty. One of the result of the case study from online shopping in Vietnam (Giao et al., 2020) and also fashion e-retailers in Spain (Rodríguez et al., 2020). Recent research on the satisfaction–loyalty relationship in the mobile commerce environment identifies varying relationship strengths across countries. (Aksoy et al., 2013)

Hypothesis 5: E-Customer Satisfaction is positively associated with E-Customer Loyalty moderated with Guanxi.

3.6. The Relationship between Logistics Service Quality and E-Customer Loyalty for Fashion Industry in Pandemic Era.

Further research would like to know the direct effect relationship between Logistics Service Quality to get E-Customer Loyalty. In this case during Pandemic era and through Omnichannel Customer Experience.

Hypothesis 6: Logistics Service Quality is positively associated with E-Customer Loyalty

3.7. The Relationship between Omnichannel Customer Experience and E-Customer Loyalty for Fashion Industry in Pandemic Era.

In Omnichannel baking integration quality, there found the positive relationship between Omnichannel Customer Experience and E-Customer Loyalty. As mention earlier, customer enjoy doing the transaction by choosing any channel by themselves. (Manel Hamouda, 2019)

Hypothesis 7: Omnichannel Customer Experience is positively associated with E-Customer Loyalty

3.8. The Relationship between Omnichannel Integrated Quality and E-Customer Loyalty for Fashion Industry in Pandemic Era

Further research would like to know the relationship between Omnichannel Integrated Quality and E-Customer Loyalty directly in Pandemic Era.

Hypothesis 3: Omnichannel Integrated Quality is positively associated with E-Customer Loyalty.

4. Methodology

This research adopts quantitative method research, which is an interconnected set of variables formed into propositions, or hypotheses, that designate the relationship among variables, usually in terms of magnitude or direction. A theory might be shown in a research study as an argument, discussion, figure, rationale, or conceptual framework, and it provides assistance in explaining phenomena that occur in the world (Cresswell & Cresswell, 2018).

The method of analysis in this study uses the multivariate statistical analysis method. Multivariate method refers to all statistical techniques that simultaneously analyze several measurements on the individual or object under study, analyze several variables representing measurements related to individuals, companies, events, activities, situations, and so on. The application of multivariate statistical techniques must be done first by dividing the data variables into independent and dependent classifications, and then indicating the dependence or interdependence techniques that need to be applied. (Hair et al., 2014)

The multi-variate statistic used in this study is the Structural Equation Model (SEM). SEM is a technique that allows separate relationships for each of a set of

dependent variables, providing a precise and most efficient estimation technique for a series of several separate regression equations estimated simultaneously. The analysis in this study uses SEM with the Partial Least Squares (PLS) application.

5. Results and Discussion

The sample for this study is the Indonesian e-commerce customers who have omnichannel experience in fashion during this pandemic era. The analytical tool that will be used in taking the number of samples is using the theory according to Hair Jr et.al (2014), using the Structural Equation Model (SEM) that the number of samples must be more than the number of indicators to be analyzed and the determination of the number of samples refers to the number of indicators multiplied by 5. Number of Samples: Number of Indicators (n) x 5. According to the formula, with 6 variables there are 43 indicators, then the minimum number of respondents to be studied is 215 respondents. Most of the sample of this study is female with 55% respondents and 45% male respondents.
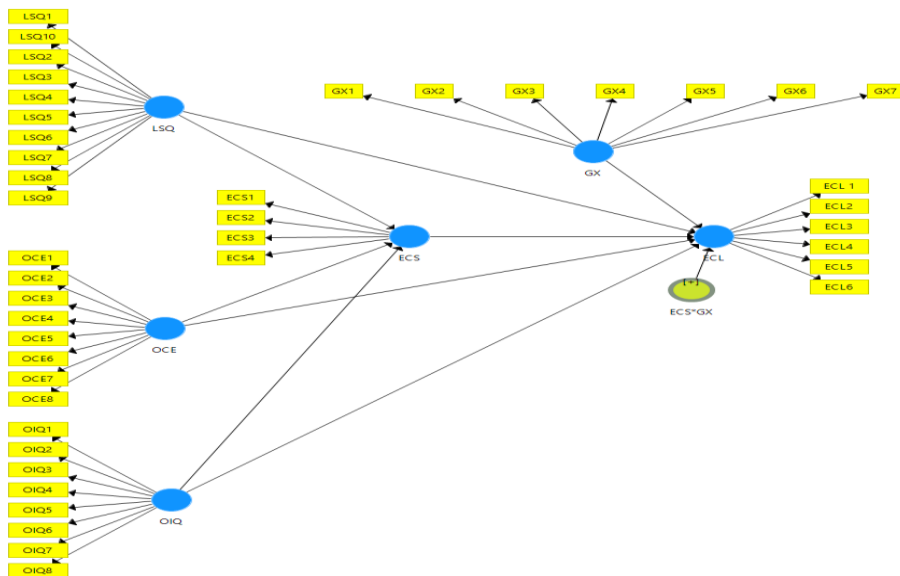

Fig. 5.1: Structure model

From Figure 5.1 found that Logistics Service Quality (LSQ) construct is measured by 10 indicators. The Omnichannel Customer Experience (OCE) construct is measured by 8 indicators. The Omnichannel Integrated Quality (OIQ) construct is also measured by 8 indicators. *Guanxi* (GX) is measured by 7 indicators. The E-Customer Satisfaction (ECS) construct is measured by 4 indicators, and last construct, E-Customer Loyalty (ELS), is measured by 6 indicators.

The direction of the arrow between the indicator and the latent construct is towards the indicators which indicate that the study uses relatively appropriate

reflective indicators to measure perception.   The relationship to be studied (hypothesis) is denoted by an arrow between the constructs.
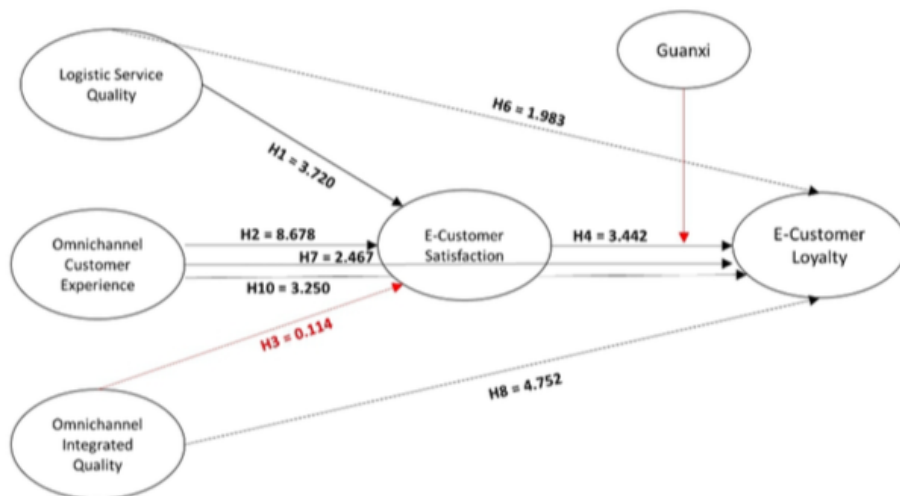

Fig. 5.2: Research result

From Figure 5.2, there are two hypotheses which is not supported, H3 and H5. For hypothesis 3, the value t-statistic is $0,114 < 1,96$ and P-Value is $0,909 > 0,05$, which means that the influence of OIQ on ECS is not significant. The coefficient value shows a positive number, namely 0.009, which means that OIQ has a positive effect on ECS. So that the results of testing hypotheses-3 cannot be accepted or reject because OIQ has no significant effect on ECS. It means that Omnichannel Integrated Quality does not influence E-Customer Satisfaction in Pandemic era for fashion industry. For hypothesis 5, the value t-statistic is $0,019 < 1,96$ and P-Value is $0,985 > 0,05$, which means that influence of ECS on ECL with GX as a moderating is not significant.

The coefficient value shows a positive number, namely 0.001, which means that ECS has a positive effect on ECL with GX as a moderating. So that the results of testing hypotheses-5 cannot be accepted/reject because the influence ECS on ECL with GX as a moderating is not significant. It means *Guanxi* cannot moderating variable to increase effect of E-Customer Satisfaction on E-Customer Loyalty.

The hypotheses test is using the output of *path coefficients (Mean, STDEV, T-Values)*. It provided that if the t-statistics value obtained from the table is greater than 1.96 and the p-value < 0.05, the hypotheses between the existing variable is accepted. O the other hand, if the t-statistic value is less than 1.96 and the p-value > 0.05, then the hypotheses is rejected. Meanwhile, to find out the magnitude of the influence of each independent variable on the dependent variable, it can be seen from the path coefficient value.

Table 5.1: Path coefficients (Mean, STDEV, T-Values)

Hypotheses	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STERR|)	P-Value	Conclusion
Direct Effect						
LSQ -> ECS	0.233	0.235	0.063	3.720	0.000	Supported
OCE -> ECS	0.569	0.566	0.066	8.678	0.000	Supported
OIQ -> ECS	0.009	0.012	0.082	0.114	0.909	Not Supported
ECS -> ECL	0.199	0.197	0.058	3.442	0.001	Supported
ECS*GX -> ECL	0.001	0.002	0.027	0.019	0.985	Not Supported
LSQ -> ECL	0.191	0.201	0.097	1.983	0.048	Supported
OCE -> ECL	0.228	0.210	0.092	2.467	0.014	Supported
OIQ -> ECL	0.337	0.347	0.071	4.752	0.000	Supported

6. Conclusion

There are some points to be considered as the priority for e-commerce player especially in fashion industry to get their e-Customer Satisfaction and furthermore to get the e-Customer Loyalty. Based on the analysis from the online questionnaire and running with SEM-PLS application, Logistics Service Quality is one of the factors that assessed as the service excellent be the important factor that can influence customer get satisfaction in online shopping for fashion products during pandemic era. The effective and efficient logistics service quality is also another factor that can influence customers keep from switching to other vendors then become loyal. The kinship relationship between customer and vendor as one of the points from Guanxi, as moderating variable and novelty in this research, is also another important factor that significantly influence customer to be loyal in online shopping. The vendors need to build the strong relationship in advance for their long-term strategy.

This study is the first study to place Guanxi as a moderating between Satisfaction and Loyalty in some vendors for fashion industry during pandemic era. Further study can be done in the same industry with specific criteria of the respondents, such as non-metro only, which have limited internet connection. The other option for future research is from different industry, such as electronics devices.

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