

Implementation of the Combination Model of Expectation Confirmation Theory and WebQual 4.0 in CRM Analysis of Post-Pandemic ShopeeFood Customer Loyalty

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ABSTRACTS

Online Food Delivery (OFD) is a service where consumers can order food online through a specific platform or application, and the food is then prepared by restaurants or food service providers and delivered directly to the consumer's address. Shopee is one of the largest and most popular e-commerce platforms in Indonesia, with one of its rapidly growing services being ShopeeFood, a food delivery service feature. Shopee has also expanded into several Southeast Asian countries and Taiwan since its launch in 2015. The aim of this research is to demonstrate the implementation of a combination of WebQual 4.0 and ECT in analyzing the relationship between CRM and customer loyalty and to determine the influence of the relationships among variables studied on ShopeeFood customer loyalty. This research adopts a quantitative approach with sample criteria including people from Java Island who have used ShopeeFood and are between 19-34 years old. This study obtained valid data from 186 respondents through a survey distributed via social media. The majority of respondents were female, aged 19-26, and were high school or vocational school graduates. The results show that of the 9 hypotheses tested, 7 were accepted and 2 were rejected. Among these hypotheses, several factors affecting user loyalty towards various online food delivery platforms include user satisfaction and CRM. Additionally, information quality, expectation, and CRM also influence user satisfaction. Expectation also affects confirmation. On the other hand, the tests conducted on the usability, service quality, and confirmation variables did not influence user satisfaction in this study.

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1. INTRODUCTION

The millennial generation and those after them now have to face a pandemic that has changed all forms of activities to be conducted in a limited manner. The pandemic event began in early 2020, or more precisely in March, with the spread of the Covid-19 virus worldwide (Kim & Crimmins, 2020). The pandemic situation that has been ongoing has forced people, especially the millennial generation who should be in their productive years, to limit interactions with others in order to avoid the spread of the virus. This has led the millennial generation to come up with various solutions in the food delivery sector where consumers can order food without having to leave their homes. Various companies have emerged offering online food delivery services, including the international marketplace Shopee.

ShopeeFood was first introduced to the public in 2020. ShopeeFood was able to withstand the onslaught of its competitors that had been established earlier, including GoFood which was launched in Indonesia in 2015 and GrabFood in 2016. This is the reason why this research chose ShopeeFood as the object of study. A study related to the growth of food delivery services during the pandemic in the Asian region is largely dominated by various Southeast Asian countries (Sachitanand, 2020). The increase that occurred during the pandemic has been very high. Especially Indonesia, which experienced a 63% increase. Our neighbor Singapore also made it to the list of the highest increases with a very significant rise of 343%, or almost four times the use of food delivery services before the pandemic.

The author is interested in examining the relationship between various variables such as customer loyalty with CRM by applying a combined model of Expectation Confirmation Theory (ECT) and WebQual 4.0. Website quality, often abbreviated as WebQual, is one of the methods or techniques for measuring the quality of websites and applications based on the perspective of end-users, according to Endarwan and Murtiningsih (2020), and ECT is a theory used to understand consumer satisfaction and post-purchase customer behavior (Malik & Rao, 2019). The purpose of this research is to demonstrate the implementation of the combination of WebQual 4.0 and ECT in analyzing the relationship between CRM and customer loyalty, and to determine the influence of the relationships between the variables studied on the customer loyalty of ShopeeFood

2. RESEARCH FRAMEWORK

The conceptual model that serves as the theoretical foundation for the study topic is known as the research framework (Sugiyono, 2013). The author will use the proposed methods and objectives mentioned in this study as a guide or reference. In the context of research, a hypothesis is a temporary assumption or proposition that serves as a potential answer to the formulated research problem (Tanjung, 2015). Based on the explained model, the research hypothesis related to the factors influencing customer satisfaction and loyalty towards ShopeeFood can be formulated as follows, with some modifications from previous studies:

- The loyalty variable has been adapted and used in the context of repurchase intention, in line with the research conducted by (Lin *et al.*, 2009). Loyal customers are characterized by their willingness to make repeat purchases, recommend to others, and engage in similar actions (Mousavi *et al.*, 2015).
- Deleting the performance variable and retaining the confirmation variable because both variables have similarities that explain the influence of perceived performance on users in relation to their initial expectations and determine the extent to which their expectations are met (Gunawan *et al.*, 2022).

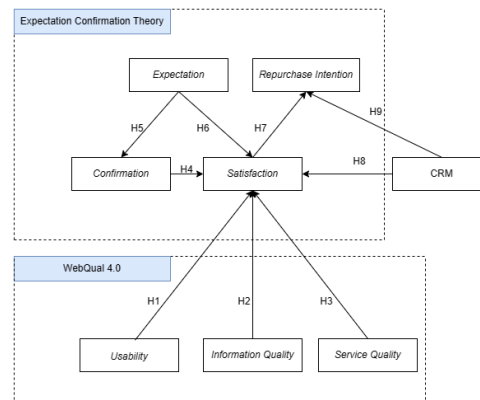


Figure 1. Research Framework

3. RESEARCH FRAMEWORK

3.1 SAMPLING

In the context of this research, sampling was conducted using one of the non-probability sampling techniques, namely purposive sampling. The sample used is ShopeeFood users who meet the criteria of a productive age of 15 to 64 years (Sukmaningrum & Imron, 2017), but according to Databoks (2018), through a survey by the Indonesian Internet Service Providers Association (APJII), nearly half of the total internet users in Indonesia are in the age group of 19-34 years. Therefore, this study uses the criteria of 19-34 years and having shopping experience on Shopee. Meanwhile, the domicile used in this study is users located on the island of Java because Java is the island with the highest penetration and contribution rates in Indonesia, with a penetration rate of 83.64% and a contribution rate of 57.82% (Santika, 2024).

The sample size or number of respondents to be used is calculated using the formula developed by (Hair *et al.*, 2021). The formula proposed by Hair is a method that takes into account the total number of existing indicator items, then multiplies it by a factor between 5 and 10. In this study, there are 33 statements that will be used. Therefore, the minimum number of respondents required is $33 \times 5 = 165$, while the maximum limit is $33 \times 10 = 330$. Therefore, the number of respondents to be included in this study is at least 165 respondents.

3.2 RESEARCH INSTRUMENT

The research has been conducted using data collection techniques in the form of distributing online Google form questionnaires to respondents through various social media platforms such as Instagram, Telegram, and WhatsApp. The instrument used is a questionnaire consisting of two parts. The first part of this research instrument includes the demographic profile of the respondents, and the second part contains 33 questions that serve as indicators of the research variables. The measurement scale used in this study is the Likert scale. This research instrument employs five answer choices represented by a number, ranging from 5 (strongly agree) to 1 (strongly disagree).

3.3 DATA ANALYSIS

3.3.1 Measurement Model

A model that explains the connection between latent variables (constructs) and their indicators is called a measurement model (Juliandi, 2018). The tests used in the Measurement model are the validity test and the reliability test.

3.3.2 Structural Model

According to Ghozali (2014), the evaluation of the structural model is the process of evaluating the relationships between latent variables as proposed in the previous hypothesis within an analytical model. The evaluation of the structural model is conducted through six stages: path coefficient, coefficient of determination, t-test, effect size, predictive relevance, and relative impact. Before these stages are carried out, this research conducts a model fit (goodness-of-fit) analysis to determine how well the expected model structure aligns with the empirical data. This can help identify model specification errors (Hair *et al.*, 2017).

4. RESULTS AND DISCUSSION

4.1 Demographic Analysis

Based on the data collection process that has been carried out, a total of 202 respondents filled out the online questionnaire. However, not all of the collected data met the criteria. There were five data points that did not meet the criteria, including two respondents residing outside Java Island and three duplicate data points. Therefore, from the total data collected, 197 respondents met the criteria, which fulfills the initial target of at least 165 respondents.

4.2 Measurement Model

Based on the results of data collection and screening, there are 186 data points whose validity was tested, including validity tests such as convergent validity and discriminant validity, as well as reliability tests such as internal consistency reliability. In PLS-SEM, data validity testing is also referred to as measurement model testing (outer model).

4.1.2 Validity Test

4.2.1.1 Convergent Validity

The first test conducted in the validity test is convergent validity. The validity level of an indicator can be considered acceptable if the outer loading value of each indicator is at least 0.7 (Hair *et al.*, 2017).

Table 1. Results of the Convergent Validity Calculation of the Final Outer Loading Value

NO	Variable	Outer loadings	Explanation	NO	Variable	Outer loadings	Explanation
1	C1	0,712	Valid	15	IQ3	0,724	Valid
2	C2	0,802	Valid	16	IQ4	0,731	Valid
3	C3	0,793	Valid	17	RI1	0,758	Valid
4	CRM1	0,768	Valid	18	RI2	0,774	Valid
5	CRM2	0,732	Valid	19	RI3	0,82	Valid
6	CRM3	0,74	Valid	20	RI4	0,815	Valid
7	CRM4	0,863	Valid	21	S1	0,809	Valid
8	CRM5	0,754	Valid	22	S2	0,774	Valid
9	CRM6	0,713	Valid	23	S4	0,819	Valid
10	E1	0,805	Valid	24	SQ1	0,773	Valid
11	E2	0,711	Valid	25	SQ4	0,822	Valid
12	E3	0,703	Valid	26	U1	0,828	Valid
13	E4	0,702	Valid	27	U2	0,818	Valid
14	IQ2	0,823	Valid	28	U4	0,887	Valid

Based on Table 1, it is known that a total of 28 indicators in this study are all valid, as evidenced by outer loading values greater than 0.7. Indicator C1 has an outer loading value of 0.712, followed by indicator C2 with 0.802, and so on, up to the last indicator U4 with an outer loading value of 0.887. Outer loading values greater than 0.7 indicate that each indicator within a variable has a high degree of similarity or identity, which is captured by the variable (Hair *et al.*, 2017).

4.2.1.2 Discriminant Validity

The Discriminant Validity test is conducted with the aim of demonstrating that a variable is unique and captures phenomena not represented by other variables in the model. Based on the cross-loading calculations in Table 2, it can be seen that the outer loading of each indicator on its variable is greater compared to the outer loading value of that indicator on other variables. This means that the indicators on each variable capture the same phenomenon when compared to other variables.

Table 2. Cross Loading Calculation Results.

	C	CRM	E	IQ	RI	S	SQ	U
C1	0,712	0,428	0,261	0,336	0,379	0,366	0,335	0,356
C2	0,802	0,359	0,287	0,223	0,304	0,405	0,236	0,325
C3	0,793	0,44	0,51	0,252	0,412	0,41	0,318	0,268
CRM1	0,271	0,768	0,356	0,319	0,33	0,401	0,428	0,289
CRM2	0,404	0,732	0,42	0,441	0,47	0,529	0,533	0,382
CRM3	0,412	0,74	0,572	0,377	0,523	0,472	0,527	0,417
CRM4	0,518	0,863	0,672	0,323	0,658	0,603	0,482	0,476
CRM5	0,431	0,754	0,632	0,288	0,558	0,518	0,414	0,38
CRM6	0,326	0,713	0,202	0,307	0,236	0,467	0,448	0,435
E1	0,321	0,484	0,805	0,054	0,574	0,381	0,197	0,212
E2	0,401	0,535	0,711	0,266	0,514	0,501	0,396	0,269
E3	0,277	0,33	0,703	0,261	0,524	0,398	0,29	0,231
E4	0,382	0,548	0,702	0,192	0,351	0,356	0,259	0,242
IQ2	0,254	0,416	0,196	0,823	0,267	0,466	0,477	0,549
IQ3	0,336	0,332	0,253	0,724	0,275	0,325	0,444	0,373
IQ4	0,201	0,237	0,179	0,731	0,236	0,279	0,401	0,439
RI1	0,2	0,43	0,418	0,325	0,758	0,357	0,281	0,338
RI2	0,325	0,426	0,556	0,235	0,774	0,438	0,372	0,373
RI3	0,486	0,628	0,53	0,274	0,82	0,468	0,353	0,442
RI4	0,454	0,501	0,623	0,25	0,815	0,441	0,345	0,355
S1	0,419	0,491	0,418	0,298	0,433	0,809	0,33	0,314
S2	0,373	0,542	0,535	0,367	0,464	0,774	0,436	0,457
S4	0,44	0,555	0,407	0,498	0,401	0,819	0,456	0,405
SQ1	0,318	0,508	0,41	0,422	0,368	0,386	0,773	0,388
SQ4	0,297	0,482	0,241	0,503	0,318	0,43	0,822	0,387
U1	0,317	0,434	0,191	0,517	0,358	0,403	0,393	0,828
U2	0,351	0,395	0,333	0,472	0,439	0,408	0,381	0,818

The test for discriminant validity is then followed by the Fornell-Larcker criterion test, which states that the square root of the AVE of each variable must be greater than its

highest correlation with other variables. In Table 3, the results of the Fornell-Larcker criterion calculations are shown.

Table 3. Results of the Fornell-Larcker Criterion Calculation

	C	CRM	E	IQ	RI	S	SQ	U
C	0,77							
CRM	0,532	0,763						
E	0,48	0,658	0,731					
IQ	0,345	0,447	0,271	0,761				
RI	0,478	0,638	0,674	0,34	0,792			
S	0,512	0,663	0,569	0,487	0,541	0,801		
SQ	0,384	0,618	0,402	0,582	0,427	0,512	0,798	
U	0,401	0,524	0,33	0,607	0,481	0,494	0,485	0,845

Based on the calculation results of the Fornell-Larcker criterion shown in Table 3, it can be seen that all variables have a higher square root of AVE value for each variable compared to other variables. This indicates that the correlation of one variable with other variables is lower than that of the variable with itself, thus showing that one variable is different from the others. Viewed in terms of discriminant validity testing using cross loading and the Fornell-Larcker criterion, which have been appropriately applied, the indicators and variables in this study can be considered valid.

4.2.2 Reliability Test

According to Ramadhan *et al.* (2021), reliability is the measurement of how much an instrument or measuring tool can be trusted and relied upon in measuring a concept or variable being studied. If the instrument has a high level of reliability, then the data produced is more trustworthy and accurate. This test has two criteria, namely through the Cronbach's alpha coefficient and composite reliability. The results of the reliability test calculations are shown in Table 4.

Table 4. Results of Reliability Test Calculations

Variable	Cronbach's Alpha	Composite Reliability	Level
Confirmation (C)	0,664	0,814	Moderate
Customer Relationship Management (CRM)	0,858	0,893	High
Expectation (E)	0,711	0,821	High
Information Quality (IQ)	0,649	0,804	Moderate
Repurchase Intention (RI)	0,803	0,871	High
Satisfaction (S)	0,721	0,843	High
Service Quality (SQ)	0,431	0,778	Moderate
Usability (U)	0,799	0,882	High

Based on the results of the reliability test calculations in Table 4, it can be seen that there are seven variables classified with a high reliability level, namely CRM, E, RI, S, and U, and three variables with a moderate reliability level, namely C, IQ, and SQ. Ekolu and Quainoo (2019) state that if the Cronbach's alpha value is in the range of 0.5-0.7, it is still acceptable with a reliability level considered sufficient and must be supported by composite reliability > 0.7.

4.3 Structural Model

4.3.1 Model Fit

The purpose of this model fit is to assess how well the model performs and to minimize or avoid certain errors so that the proposed model aligns and fits the sample data (Muhson, 2022). Table 5 shows the results of the model fit calculations.

Table 5. Model Fit Calculation Results

	Saturated Model	Ambang Batas
SRMR	0,092	< 0,8
NFI	0,591	≥ 0,9
d_G	1,193	< 95
d_ULS	3,429	< 95

The results show that the model proposed in this study has met most of the established evaluation criteria. The SRMR criterion has a value of 0.092, which meets the requirement as it is below the threshold of 0.8. Furthermore, the d_ULS (Euclidean) value is recorded at 3.429 and the d_G (Geodesic) at 1.193, both of which meet the criteria as they are below the value of 95. However, on the Normed Fit Index (NFI) criterion, the obtained value is 0.591, which indicates that this model has not yet reached the optimal standard because it is below 0.9. According to Bentler and Bonett (1980), NFI has a value range between 0-1, where a value closer to 1 indicates a better model. Therefore, although the NFI value of 0.591 is quite adequate, this model cannot yet be categorized as a good fit.

4.3.2 Path Coefficient (β)

Path coefficient indicates the strength of the relationship between variables in the research model. This relationship strength ranges from -1 to +1. Table 6 shows the results of the path coefficient calculations.

Table 6. Path Coefficient Calculation Results

Variable Relationship	Path Coefficient
E → C	0,480
E → S	0,212
C → S	0,141
IQ → S	0,166
SQ → S	0,051

$U \rightarrow S$	0,086
$CRM \rightarrow S$	0,296
$CRM \rightarrow RI$	0,498
$S \rightarrow RI$	0,211

Based on Table 6, it can be seen that the strongest positive relationship is between the CRM variable and repurchase intention with a value of 0.498. Meanwhile, other independent variables also have a positive relationship with the dependent variable, as shown by the original sample path coefficient values in Table 9, and there are no negative relationships among the tested variables.

4.3.3 Coefficient Of Determinant (R^2)

The R^2 test can be interpreted as the extent to which the independent variable can explain changes in the dependent variable (Wijaya *et al.*, 2021). The R-square calculation results can be found in Table 7.

Table 7. Coefficient of Determinant Calculation Results

Variable	<i>R-square</i>
C	0,230
RI	0,432
S	0,539

In this study, Table 7 shows a variation in the obtained R-square values, ranging from 0.230 to 0.539. For example, in the confirmation variable, an R-square value of 0.230 was found, indicating that 23% of the confirmation variable is influenced by the independent variable, which is expectation. Meanwhile, the remaining 77% of the confirmation variable will be influenced by other variables not discussed in this study.

4.3.4 T-Test

Next, to test the significance and relevance of the coefficients, a bootstrapping analysis was conducted using one of the tools from the SmartPLS software. This analysis is used to examine the t-value and p-value simultaneously in hypothesis testing. The results of the t-value and p-value calculations can be found in Table 8.

Table 8. Results of Bootstrapping t-value and p-value Calculations

Hypothesis	Relationship	t-values	p-values	Explanation
H1	$U \rightarrow S$	1,097*	0,273*	Rejected
H2	$IQ \rightarrow S$	2,501	0,012	Accepted
H3	$SQ \rightarrow S$	0,655*	0,513*	Rejected
H4	$C \rightarrow S$	2,015	0,044	Accepted
H5	$E \rightarrow C$	8,222	0,000	Accepted
H6	$E \rightarrow S$	2,7	0,007	Accepted

H7	S → RI	2,303	0,021	Accepted
H8	CRM → S	3,655	0,000	Accepted
H9	CRM → RI	6,232	0,000	Accepted

From the results of the bootstrapping calculations, it can be seen that H2, H4 to H9 are all accepted because the p-value of each relationship is less than 0.05. However, there are two hypotheses that are rejected because the p-value > 0.05, namely 0.273, where the usability of the application does not have a direct positive effect on user satisfaction (H1 is rejected) and the quality of the application service does not have a direct positive effect on user satisfaction (H3 is rejected) with a p-value of 0.513. As for the t-values of each relationship, they are greater than 1.96 for H2, H4 to H9, which means that H2, H4 to H9 have statistically significant relationships. However, H1 and H3 have t-values of 1.097 and 0.655, respectively, indicating that the relationships in H1 and H3 are not statistically significant.

4.3.5 Effect Size (f^2)

Effect size test (f^2) tests an exogenous construct in terms of its contribution strength to explain a certain endogenous construct using the R^2 value (Ernawati *et al.*, 2021). In this study, if the f^2 value ranges from 0.02 to 0.15, the effect is small, while the effect will be moderate if it falls within the range of 0.15 to 0.35. Lastly, if the f^2 value is greater than 0.35, the effect is large. If the value is less than 0.02, it indicates no effect (Hair *et al.*, 2017). The results of the f Square calculation can be seen in Table 9.

Table 9. Effect Size Test Calculation Results

Relationship Between Variables	<i>f-Square</i>
E → C	0,299
E → S	0,053
C → S	0,029
IQ → S	0,031
SQ → S	0,003
U → S	0,009
CRM → S	0,071
CRM → RI	0,245
S → RI	0,044

Based on Table 9, it can be interpreted that expectation has a moderate effect on confirmation. Expectation has a small effect on satisfaction. Meanwhile, confirmation has a small effect on satisfaction, and so on, until satisfaction has a small effect on repurchase intention.

4.3.6 Predictive Relevansi (Q^2)

The predictive relevance test is a measure used in regression analysis to assess how well the regression model accurately predicts the dependent variable. If the Q^2 value exceeds zero, the model is considered to have predictive relevance. However, if the Q^2 value is less than zero, the model is considered to lack predictive relevance. The results of the Q-Square calculation can be seen in Table 10.

Table 10. Predictive Relevant Calculation Results

Variable	Q^2 predict
C	0,205
RI	0,425
S	0,486

From Table 10, it can be seen that the research results show that all Q-Square values on the dependent variables are greater than zero, namely variable C with a value of 0.205, then variable RI with a value of 0.425, and variable S with a value of 0.486. Therefore, it can be said that the PLS path modeling in this study shows good predictive relevance.

4.3.7 Relative Impact (q^2)

Relative impact is a test that functions to measure the relative impact of a predictive relevance. According to Ernawati *et al.* (2021), the relative impact testing (q^2) is described with a threshold value of q^2 around 0.02, considered small, a q^2 value around 0.15 for medium impact, and a q^2 value around 0.35 classified as large impact.

Table 11. Relative Impact Calculation Results

Variable	$Q^2_{include}$	$Q^2_{exclude}$	$q^2 = \frac{Q^2_{include} - Q^2_{exclude}}{1 - Q^2_{include}}$
C → S	0,486	0,205	0,547
S → RI	0,425	0,486	-0,106

Based on Table 14, it can be seen that the q^2 values for each variable tested in this study. The relationship C → S has a large q^2 value of 0.547, which means C has a significant influence on variable S, while S → RI has no influence because its q^2 value is -0.106.

4.4 Analysis of Hypothesis Test Results

4.4.1 The influence of U on S

The first hypothesis in this study is that usability will positively affect user satisfaction or perceived satisfaction with the application. After conducting statistical testing, the p-value of the relationship between the variables was found to be 0.273 ($p > 0.05$) and the t-value was 1.097 ($t < 1.96$). From these results, it can be interpreted that usability does not have a direct positive impact on the user satisfaction experienced. (**H1 is rejected**).

The results of this study are in line with the research conducted by previous researchers Bintari et al. (2022), which showed that usability does not affect the satisfaction felt by users. Usability or the usefulness of an application is perceived by users through several indicators, namely in terms of ease of access and operation, clarity of interactions within the application, and the ease with which the application can be understood by users. According to this research, this will not affect user satisfaction in using the service. Furthermore, in terms of navigation, such as the ease of finding menus within an application, the usability variable will not correlate with user satisfaction.

4.4.2 The influence of IQ on S

After conducting the test, the p-value from the relationship between the variables was found to be 0.012 ($p < 0.05$) and the t-value was 2.501 ($t > 1.96$). From these results, it can be concluded that information quality positively affects perceived satisfaction, and the relationship is statistically significant. (**H2 is accepted**). The results of this study are consistent with the research of Giyanti and Suparti (2018), Roz (2020), as well as DS and Sanjaya (2021). Based on the findings of this study, it can be interpreted that the better the quality of information, the higher the level of user satisfaction, because ShopeeFood users feel that ShopeeFood has provided accurate, formatted, relevant, and up-to-date information according to their desires.

4.4.3 The influence of SQ on S

The third hypothesis is that the perceived service quality of the application will positively affect user satisfaction. After conducting the test, the p-value from the relationship between the variables was found to be 0.513 ($p > 0.05$) and the t-value was 0.655 ($t < 1.96$). From these findings, it can be interpreted that the perceived service quality of the application does not affect user satisfaction (**H3 is rejected**). With the rejection of H3, it means that users feel that the high or low quality of service will not affect their perception of satisfaction when using the ShopeeFood online food delivery service.

4.4.4 The influence of C on S

The next hypothesis is that confirmation positively affects satisfaction. The results of this study support the proposed hypothesis. After conducting statistical testing, it was found that the p-value of the relationship between trust and loyalty is 0.044 ($p < 0.05$) and the t-value is 2.015 ($t > 1.96$). These findings indicate that the relationship between confirmation and satisfaction does not have a positive impact (**H4 is accepted**). These findings are consistent with previous research conducted by Devrinno *et al.* (2023), Brilliana *et al.* (2020), Foroughi *et al.* (2019), and Susanto *et al.* (2016). With the acceptance of H4, it means that users feel that the higher the confirmation of user expectations, the greater the impact on user satisfaction perception in using the ShopeeFood online food delivery service.

4.4.5 The influence of E on C

After testing, the p-value of the relationship between the variables was found to be 0.000 ($p < 0.05$) and the t-value was 8.222 ($t > 1.96$). The relationship between the expectation variable and the confirmation variable is the most prominent inter-variable relationship, as it has the smallest p-value and the largest t-value among all the tested variable

relationships. From the results, it can be said that expectation positively affects confirmation and the relationship is statistically significant (**H5 is accepted**). The findings of this study are consistent with the research conducted by Bhattacharjee (2001) and Oliver (1980). According to Bhattacharjee (2001), confirmation is the extent to which users feel that their initial expectations of an application have been confirmed during actual use.

4.4.6 The influence of E on S

The next hypothesis proposed in this study is that expectation has a direct positive effect on satisfaction. After conducting the test, the p-value of the relationship between the variables was found to be 0.007 ($p < 0.05$) and the t-value was 2.7 ($t > 1.96$). From these results, it can be interpreted that expectation has a direct positive effect on satisfaction and the relationship is statistically significant. (**H6 is accepted**). The results of this study are consistent with previous research that expectation can directly influence satisfaction (Hammad *et al.*, 2013; Satriawan & Aryadi, 2019).

4.4.7 The influence of S on RI

The p-value obtained from the relationship between the variables was 0.021 ($p < 0.05$) and the t-value was 2.303 ($t > 1.96$). From these results, it can be said that satisfaction positively affects repurchase intention and the relationship is statistically significant (**H7 is accepted**). The findings of this study are consistent with the research conducted by Hasniati *et al.* (2021), Vashti and Antonio (2021), Nurdiansah and Widyastuti (2022). High consumer satisfaction will impact their desire to repurchase in the short or long term, or at least share positive stories or encourage others, friends, and family to repurchase.

4.4.8 The influence of CRM on S

The p-value obtained from the relationship between the variables was 0.000 ($p < 0.05$) and the t-value was 3.655 ($t > 1.96$). From these findings, it can be interpreted that CRM positively affects satisfaction and the relationship is statistically significant (**H8 is accepted**). The results of this study are in line with previous research (Emaluta *et al.*, 2021; Ridwan *et al.*, 2021; Salam, 2021) that CRM affects satisfaction in using online food delivery applications. With the acceptance of H8, it means that users feel that the higher the communication, commitment, and trust between consumers and service providers, the higher the perception of user satisfaction in using the ShopeeFood online food delivery service.

4.4.9 The influence of CRM on RI

The last hypothesis in this study is that CRM will positively affect repurchase intention. After conducting the test, the p-value of the relationship between the variables was found to be 0.000 ($p < 0.05$) and the t-value was 6.232 ($t > 1.96$). From these findings, it can be interpreted that CRM will positively affect repurchase intention and the relationship is statistically significant. (**H9 is accepted**). The results of this study are supported by previous research (Putra, 2024; Rachbini *et al.*, 2024). Users who have trust (one of the variables in CRM) in a product or application tend to use and adopt that product continuously in the long term.

5 CONCLUSION

This research aims to demonstrate the implementation of the combination of WebQual 4.0 and ECT in analyzing the relationship between CRM and customer loyalty, and to determine the influence of the relationships between the variables studied on ShopeeFood's customer loyalty. This research uses a quantitative method with Partial Least Squares Structural Equation Model (PLS-SEM). Data analysis is conducted using SmartPLS 4. Based on the results obtained, several conclusions can be drawn as follows. The combination dimensions of WebQual 4.0 and ECT can be well implemented and simultaneously have a positive effect on the relationship between CRM and customer loyalty. This is evidenced by CRM positively influencing loyalty, represented by repurchase intention. From these findings, it can be interpreted that CRM positively affects repurchase intention, which represents customer loyalty, and the relationship is statistically significant.

Of the total 9 hypotheses proposed in this study, the results show that 7 hypotheses were accepted and 2 hypotheses were rejected. Therefore, it can be concluded that the factors influencing user loyalty towards several online food delivery platforms are user satisfaction and CRM. Additionally, information quality, expectation, confirmation, and CRM also affect user satisfaction. Expectation also influences confirmation. On the other hand, the tests conducted on the variables of usability and service quality do not affect user satisfaction as examined in this study.

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