

The Effect Of Brand Image And E-Service Quality On Customer Loyalty With Customer Satisfaction As A Mediation Variable (Study On Gopay E-Payment Users For Food And Beverages In Subang)

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ABSTRACT

The rapid development of technology has triggered changes in the behavior and lifestyle of people who want something to be done instantly. This has an impact on the company because of the fierce competition and requires companies to develop strategies so that they can compete and survive by utilizing technological developments that occur, one of which is the electronic payment system.

This research was conducted to determine the influence of Brand Image and E-Service Quality on customer loyalty through customer satisfaction as mediation (case study of Gopay e-payment users for manakan payments and beverages by delivery). This study used a descriptive method with an explanatory survey. The data used were primary data obtained by distributing questionnaires online to 100 respondents with purposive sampling techniques, and secondary data from several books, research journals, and internet media.

The results showed that perasially (t-test) the variables of Brand Image and E-Service Quality had a significant effect on customer satisfaction. Then the variables of Brand Image and E-Service Quality have a direct and significant effect on customer loyalty. Based on the results of the path analysis, it shows that customer satisfaction variables can mediate Brand Image and E-Service Quality to customer loyalty. Simultaneous results (test f) show that the variables of Brand Image and E-Service Quality have an indirect effect on customer loyalty through customer satisfaction.

Keywords: Brand Image, E-Service Quality, Customer Satisfaction, and Customer Loyalty.

1. Introduction

Technological developments change people's behavior and lifestyle, especially in the pattern of interaction with business, economy, social and culture. This has had a substantial impact on society in the form of new jobs, increased access to internet services, and better connectivity to the global community. Indirectly, the existence of technology makes someone want convenience in every

activity, including purchasing activities (Ngafifi, 2014). As a result of the use of this technology, there has been a shift in consumer behavior which has become a new *trend* , starting from making purchases *offline* to becoming *online*.

Customer loyalty is a parameter for a company to create a competitive and sustainable advantage so that the company can continue to develop better in the long term. Tjiptono (2014) reveals that customer loyalty *is* a commitment that is firmly held by a consumer to repurchase or subscribe to a preferred product or service consistently in the future. Customer loyalty is basically a crucial strategic goal for the company. According to Keiningham, et al (2007) it is important for companies to strive to create consumer loyalty with relatively customer involvement in long-term relationships with the company so that consumers do not switch to other products or services.

Companies must try thye best effort to be able to meet the needs of the community to create consumer loyalty, but in the form of utilizing technological developments, for example in the payment system. The payment system currently being campaigned for is an electronic payment system or *electronic payment* , which is a digital payment method using electronic money media that has been developed by *financial technology -based companies* that are in line with the times. Updates on technology-based financial services are now starting to become inherent in people's daily lives. According to the Asia Development Bank (2016), electronic payments globally have been considered an adequate means to reduce the level of costs of providing financial services. Meanwhile, according to Mustapha (2018:11) in Nigeria, the presence of *financial technology* has a positive impact on sustainable economic growth and has great potential for financial inclusion.

Reporting from the official website (Indonesia.go.id, 2021), in Indonesia there are two types of electronic money which are distinguished by storage media, namely *chip-based* and *server-based*, examples of *chip -based electronic money* are Tap Cash BNI, Flazz BCA, *E-Money*. Mandiri, Mega Cash, Brizzi BRI, Blink BTN, and Jak *Card* Bank DKI, while digital wallet services or electronic payment instruments are included in *server -based electronic money* , these types of services include GoPay, OVO, DANA and LinkAja.

If you look at the *trend* in Indonesia, consumers often use *server-based e-payments* rather than *chip-based e-payments* . This is evidenced by the results of the Kata Data Insight Center (KIC) research, which states that 11.1% of respondents use funds every day. Dana is a type of *server -based e-payment* used by the public. Meanwhile, consumers who use chip-based *e-payments* every day are in second place with 9.1%. The research classifies *chip -based e-payments* under the Flazz BCA, *E-Money* Mandiri, and Brizzi brands. Consumers who rarely use *chip -based e-payments* are 27.3%, this increase is the second largest after Shopee Pay, which is a type of *server -based e-payment* . (Katadata.co.id, 2022)

1.1 Identification of problems

- How *Brand Image* of Gopay *e-payment* users in Subang?
- How *E-Service Quality* Gopay *e-payment* users in Subang?
- How *Customer Satisfaction* with Gopay *e-payment* users in Subang?
- How *Customer Loyalty* Gopay *e-payment* users in Subang?
- Does *Brand Image* affect *Customer Satisfaction* on GoPay *e-payment* users in Subang?
- Does *E-Service Quality* affect *Customer Satisfaction* for GoPay *e-payment* users in Subang?

- Does *Image* and *E-Service Quality* affect *Customer Satisfaction* on GoPay *e-payment* users in Subang?
- Does *Brand Image* directly affect *Customer Loyalty* for GoPay *e-payment* users in Subang?
- Does *E-Service Quality* have a direct effect towards *Customer Loyalty* to GoPay *e-payment* users in Subang?
- Does *Customer Satisfaction* affect *Customer Loyalty* for GoPay *e-payment* users in Subang?
- Does *Brand Image* indirectly affect *Customer Loyalty* through *Customer Satisfaction* on GoPay *e-payment* users in Subang?
- Does *E-Service Quality* indirectly affect *Customer Loyalty* through *Customer Satisfaction* on GoPay *e-payment* users in Subang?
- Does *Brand Image* and *E-Service Quality* indirectly affect *Customer Loyalty* through *Customer Satisfaction* on GoPay *e-payment* users in Subang?

2. Literature Review

2.1 Theoretical Basis

2.1.1 Marketing Management

Marketing management is an analysis of the planning, implementation and *control* of programs that have been planned regarding the exchanges desired by consumers with the aim of obtaining individual benefits and mutual benefits (Lupiyoadi 2016:6)

2.1.2 Brand Equity

Equity is a series of associations and behaviors of customers, distribution channels, and parent companies in which it is likely that a brand will get a larger sales volume than it would have without the associated brand name. (Tjiptono 21017:134)

2.1.3 Brand Image

Brand Image is a set of *tangible* and *intangible properties*, such as ideas, beliefs, values, interests and functions of the device that make it unique and different (Hasan 2013:210)

The dimensions of Brand image: Strength, Uniqueness, Favorite

2.1.4 Marketing Mix

The marketing mix is a set of marketing tools used by the company to get the perception of the desired target market (kottler &Amstrong 2018)

7P in marketing mix can be describe as: Product, Price, Place, Promotion, People, Process, Physical evidence/envirenment

2.1.5 E-Service Quality

E-Service Quality is a service provided to internet network consumers as an extension of the ability of a site to facilitate shopping, purchasing, and distribution activities effectively and efficiently (Kimora 2013:109), dimensions of E-Service Quality: efficiency, reliability, Fulfillment, Privacy, Responsiveness, Compensation, Contact

2.1.6 Consumer Behaviour

Consumer behavior is the study of the processes involved when individuals or groups select, purchase, use, or create products, services, ideas or experiences to satisfy needs and wants (Solomon (2018:28))

2.1.7 Cunsomer Satisfaction

An individual's feeling of pleasure or disappointment that arises after comparing the performance (outcome) of the product thought to the expected performance (or result). If the performance is below expectations, then the customer is not satisfied. If performance exceeds expectations, the customer is very satisfied or happy (Kotler (2018;177))

Dimension of customer satisfaction: Remain Loyal, Buy The product Offered, Recommend products, Willing to pay more, Give feedback

2.1.8 Customer Loyaty

Customer loyalty is a non-random purchase made from time to time by several decision-making units (Griffin in Buchari (2014;274), Dimension of customer loyalty: Makes regular repeat purchase, purchase across product and services lines, recommend products to others, immune to other product from comperitior

2.2 Previous Research

On Gupta (2017) E-wallet users in Varanasi City, shows a correlation between *Relationship Management* and *Customers Loyalty*. Based on these results, it can be concluded that the regression model is appropriate. To have loyal customers in Paytm Enterprise, marketers need to build solid relationships with customers by focusing on independent variables .

On research conducted by hasim et al (2020) in Malaysia show *Brand Image* has a positive effect on *Customer Satisfaction*, *Price* has a negative effect on *Customer Satisfsaction*, *Service Quality* has a positive effect on *Customer Satisfaction*, *Trust* has a positive effect on *Customer Satisfaction*.

Others research conducted by Valencia (2022) for shopeepay E-wallet users in Indonesia showed The results showed that *Service Innovation* and *Service Delivery* were mediated by *Customer Satisfaction*, and *Customer Satisfaction* itself had a positive and significant effect on *Customer Loyalty of ShopeePay users* in Indonesia. These findings indicate that ShopeePay Indonesia needs to develop *Service Innovation* and *Service Delivery* that meet customer needs and expectations to achieve *Customer Loyalty*

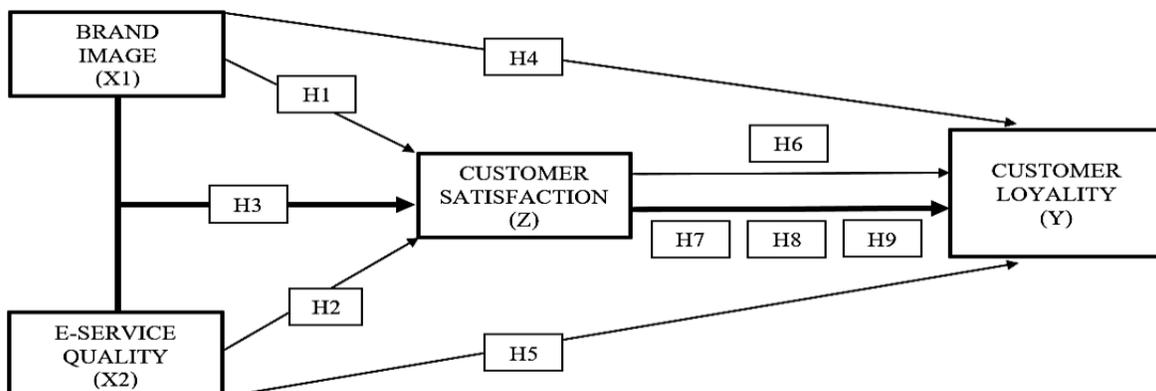


Figure 1. Hypothesis Flowchart

3. Research Methodology

3.1 Research Methode

The method used in this research is an *explanatory survey research method* with descriptive and verification research types. According to Sugiyono (2018:6) descriptive research is research that describes what is happening to an object being studied.

3.2 Data Collection Technique

Primary data obtained by the questionnaire that shared to responden, and secondary data obtained by collecting theory, statement and data from library research

3.3 Population And Samples

The population I this study was citizen in subang city, then from the population, and then from the total population, 100 samples are taken that represent the criteria: subang residents, have used Gopay e-payments to buy and pay food and beverages

3.4 Measurement Scale

Analyzing the data produced, a measurement scale is needed, Sugiyono (2018:157) states that the Measurement Scale is an agreement that is used as a benchmark to determine the length of the short interval that exists on the measuring instrument when used in measurements that will produce quantitative data. The measurement of the variables used in this study is a *numerical scale/multiple rating list scale*. According to Cooper & Schindler (2013) the numerical scale has the same interval that separates their point scale. On a numerical scale, there are 5 scale points, 7 scale points or 10 scale points. Researchers used a 7-point scale in this study.

4. Results

4.1 Descriptive Analysis Of Research Variables

4.1.1 Respondents Response On Brand Images

On the total score that has been obtained, the variable X1 (*Brand Image*) on interval range of 3,176 – 3,690 with good information. In this case, it shows that the *Brand Image* on GoPay 's *e-payment* for food and beverage payments by *delivery order* is considered good, and all the indicators on *Brand Image*, the *favorable* dimension with the ease of brand spoken indicators got the highest score of 595 with a percentage of 85%. This shows that the respondents gave a good assessment of these indicators. As for the product's physical appearance indicator from the strength dimension , it gets the lowest score of 563 with a percentage of 80%. This shows that the respondents gave a less favorable assessment of these indicators compared to other indicators.

4.1.2 Respondents Response On E-Service Quality

Based on the total score that has been obtained, the variable X2 (*E-Service Quality*) is in the interval 6346 – 7374 with good information. In this case, it shows that *the E-Service Quality* on GoPay 's *e-payment* for food and beverage payments by *delivery order* is considered good, and Of all indicators on *E-Service Quality*, the dimension of efficiency with the indicator of the ability to access *the website* getting the highest score of 600 with a percentage of 86%. This shows that the respondents gave a good assessment of these indicators. As for the warranty indicator, the cost of

handling failed products from the compensation dimension get the lowest score of 550 with a percentage of 79%.

4.1.3 Respondents response Regarding customer satisfaction

Of all indicators on *Customer Satisfaction*, the dimension remains loyal with the indicator satisfied to get the highest score of 592 with a percentage of 85%. This shows that the respondents gave a good assessment of these indicators. As for the indicator recommending a product from the dimensions of recommending a product get the lowest score of 550 with a percentage of 79%. This shows that the respondents gave a less favorable assessment of these indicators compared to other indicators.

4.1.4 Respondents response on Customer Loyalty

Based on the total score that has been obtained, the variable Z (*Customer Satisfaction*) is on an interval scale of 3.176 – 3.690 with good information. In this case, it shows that *Customer Loyalty on GoPay's e-payment* for food and beverage payments by *delivery order* is considered good, Of all indicators on *Customer Loyalty*, the dimension refers to other with the indicator of recommending products to others , the highest score is 577 with a percentage of 82%. This shows that the respondents gave a good assessment of these indicators. As for the indicators demonstrating the superiority of the product from the dimensions *demonstrates immunity to the pull of the competition* get the lowest score of 554 with a percentage of 79%.

4.2 Data Hypothesis test result

4.2.1 Determination Test Results (R²) (Model I)

Table 1. Coefficient of Determination Test (Model I)

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.867 ^a	.752	.747	2.16956
a. Predictors: (Constant), <i>E-Service Quality</i> , <i>Brand Image</i>				
b. Dependent Variable: Customer Satisfaction				

Model Summary table above, it can be concluded that the R value is 0.752 or 75.2%, which means that there is a relationship between the Z variable (*Customer Satisfaction*) and the independent variables (*Brand Image* and *E-Service Quality*). As for the results of Adjust R Square of 0.747 or 74.7%, which means that there is an influence of the independent variable on the mediating variable of 74.7%. (While the remaining 100% - 74.7% = 25.3%) is influenced by other variables not examined in other studies.

4.2.2 Partial T Test (model 1)

Table 2. Partial Test (T Test)

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	1,727	1.906		.906	.367		
<i>Brand Image</i>	.274	.070	.288	3.911	.000	.470	2.128

<i>E-Service Quality</i>	.334	.039	.635	8,607	.000	.470	2.128
a. Dependent Variable: Customer Satisfaction							

Then the formulation of the hypothesis based on the table above is as follows:

- *Brand Image* hypothesis based on table 4.27 show that $T_{count} > T_{table}$ where $3.911 > 1.984$ with a significant level of $0.000 < 0.05$, which means that *Brand Image* has a positive and significant influence on *Customer Satisfaction*.
H1 : There is an influence of *Brand Image* on *Customer Satisfaction*. Received.
- *E-Service Quality* hypothesis based on table 4.28 show that $T_{count} > T_{table}$ where $8.607 > 1.984$ with a significant level of $0.000 < 0.05$, which means that *E-Service Quality* has a positive and significant influence on *Customer Satisfaction*.
H2 : There is an effect of *E-Service Quality* on *Customer Satisfaction*. Received.

4.2.3 Simultaneous F test Results (model 1)

Table 3. Simultaneous Test (F Test)

		ANOVA ^a				
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1386012	2	693.006	147,229	.000 ^b
	Residual	456.578	97	4.707		
	Total	1842,590	99			
a. Dependent Variable: Customer Satisfaction						
b. Predictors: (Constant), <i>E-Service Quality</i> , <i>Brand Image</i>						

Source: SPSS output results, 2022

From table 4.2 above shows the ANOVA test or F test obtained from $F_{count} > F_{table}$, namely $147,229 > 3.09$ with a significant level of 0.000. So it can be concluded that *Brand Image* and *E-Service Quality* together (simultaneously) have a significant effect on *Customer Satisfaction*.
H3: There is an influence of *Brand Image* and *E-Service Quality* on *Customer Satisfaction*. Received.

4.2.4 Determination Test Results (R^2) (Model II)

Table 4. Coefficient of Determination Test (Model II)

Model Summary ^b				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.920 ^a	.847	.842	1.85628
a. Predictors: (Constant), Customer Satisfaction, <i>Brand Image</i> , <i>E-Service Quality</i>				
b. Dependent Variable: Customer Loyalty				

Source: SPSS output results, 2022

Model Summary table above, it can be concluded that the R value is 0.847 or 84.7%, which means that there is a relationship between the dependent variable (*Customer Loyalty*) with the independent variables (*Brand Image* and *E-Service Quality*) and the mediating variable (*Customer*

Satisfaction). As for the results of Adjust R Square of 0.842 or 84.2%, which means that there is an influence of the independent variable on the mediating variable of 84.2%. (While the remaining 100% - 84.2% = 15.8%) is influenced by other variables not examined in other studies.

4.2.5 Partial Test Results (T-Test Model II)

Table 5. Partial Test (T Test)

Model	Coefficients ^a						
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-2,946	1,637		-1,799	.075		
<i>Brand Image</i>	.188	.064	.183	2,925	.004	.406	2,463
<i>E-Service Quality</i>	.195	.044	.342	4.418	.000	.266	3,753
Customer Satisfaction	.499	.087	.461	5.739	.000	.248	4.036

a. Dependent Variable: Customer Loyalty

Source: SPSS output results, 2022

Then the formulation of the hypothesis based on the table above is as follows:

- *Brand Image* hypothesis based on table 4.30 show that $T_{count} > T_{table}$ where $2,925 > 1,984$ with a significant level of $0.000 < 0.05$, which means that *Brand Image* has a positive and significant influence on *Customer Loyalty*.

H4 : There is an influence of *Brand Image* on *Customer Loyalty*. Received.

- *E-Service Quality* hypothesis based on table 4.28 show that $T_{count} > T_{table}$ where $4.418 > 1.984$ with a significant level of $0.000 < 0.05$, which means that *E-Service Quality* has a positive and significant influence on *Customer Loyalty*.

H5: There is an effect of *E-Service Quality* on *Customer Loyalty*. Received.

- *Customer Satisfaction* hypothesis based on table 4.28 show that $T_{count} > T_{table}$ where $5.739 > 1.984$ with a significant level of $0.000 < 0.05$, which means that *Customer Satisfaction* has a positive and significant influence on *Customer Loyalty*.

H6 : There is an influence of *Customer Satisfaction* on *Customer Loyalty*. Received.

4.2.6 Simultaneous Test Results (F Test Model II)

Table 6. Simultaneous Test (F Test)

Model	ANOVA ^a					
		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1827,956	3	609,319	176,831	.000 ^b
	Residual	330,794	96	3.446		
	Total	2158,750	99			

a. Dependent Variable: Customer Loyalty
b. Predictors: (Constant), Customer Satisfaction, *Brand Image*, *E-Service Quality*

Source: SPSS output results, 2022

From table 4.3 1 above shows the ANOVA test or *F test* obtained from $F_{count} > F_{table}$, namely $176,831 > 3.09$ with a significant level of 0.000. So it can be concluded that *Brand Image* and *E-*

Service Quality together (simultaneously) have a significant effect on *Customer Satisfaction* through *Customer Satisfaction* .

H9: There is an influence of *Brand Image* and *E-Service Quality* on *Customer Loyalty* through *Customer Satisfaction* . Received.

4.2.7 Results of Regression Analysis / Path Analysis (Model I)

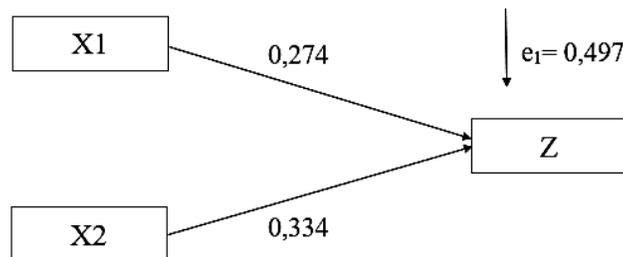


Figure 2 : Model I Path Diagram

4.2.8 Results of Regression Analysis / Path Analysis (Model I)

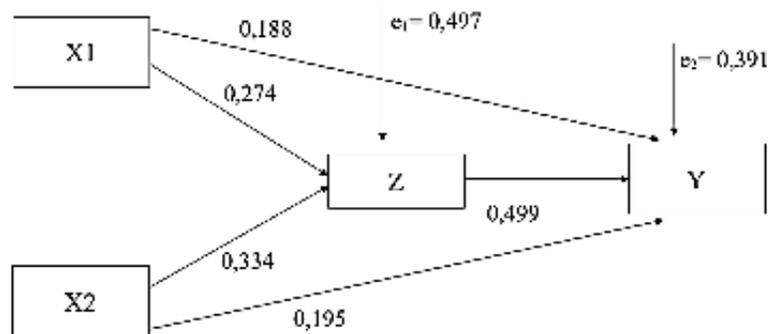


Figure 3 : Model II Path Diagram

5. Discussion

- *Brand Image of GoPay's e-payment* in Subang considered good
- *E-Service Quality* on GoPay's *e-payment* in Subang considered good,
- *Customer Satisfaction* on GoPay *e-payment* in Subang considered good
- *Customer Loyalty* on GoPay *e-payment* in Subang considered good,
- *Brand Image* (X1) has a significant effect on *Customer Satisfaction* (X2) the value of the variable X1 (*Brand Image*) $T_{count} > T_{table}$ with a value of $3.911 > 1.984$ and a significance value of $0.000 < 0.05$.
- *E-Service Quality* (X2) has a significant effect on *Customer Satisfaction* (X2) the value of the variable X2 (*E-Service Quality*) $T_{count} > T_{table}$ with a value of $8.607 > 1.984$ and a significance value of $0.000 < 0.05$.
- Based on the test results simultaneously *Brand Image* (X1) and *E-Service Quality* (X2) have a joint and significant effect on *Customer Satisfaction* (Z) the calculated F value $> F_{table}$ which is $147,229 > 3.09$ with a significant level of $0.000 < 0.05$.

- Based on the test results partially *Brand Image* (X1) has a significant effect on *Customer Loyalty* (Y). This can be seen from the value of the variable X1 (*Brand Image*) $T_{count} > T_{table}$ with a value of $2,925 > 1,984$ and a significance value of $0.004 < 0.05$.
- *E-Service Quality* (X2) has a significant effect on *Customer Loyalty* (Y) the value of the variable X2 (*E-Service Quality*) $T_{count} > T_{table}$ with a value of $4.418 > 1.984$ and a significance value of $0.000 < 0.05$.
- *Customer Satisfaction* (Z) has a significant effect on *Customer Loyalty* (Y) the value of the variable Z (*Customer Satisfaction*) $T_{count} > T_{table}$ with a value of $5.739 > 1.984$ and a significance value of $0.000 < 0.05$.
- Based on the results of path analysis and sobel test X1 (*Brand Image*) has an indirect and significant effect on variable Y (*Customer Loyalty*) through the mediation variable Z (*Customer Satisfaction*) the value of $T_{arithmetic} > t_{table}$ with a value of $2.349 > 1.984$ and a significant value level of $0.018 < 0.05$.
- Based on the results of path analysis and sobel test X2 (*E-Service Quality*) has an indirect and significant effect on variable Y (*Customer Loyalty*) through mediation variable Z (*Customer Satisfaction*). This can be seen from the value of $T_{arithmetic} > t_{table}$ with a value of $3.936 > 1.984$ and a significant value level of $0.00 < 0.05$.
- Based on the results of the simultaneous test, *Brand Image* (X1) and *E-Service Quality* (X2) have a joint and significant effect on *Customer Loyalty* (Y) through *Customer Satisfaction* (Z) as a mediating variable. . This can be seen from the calculated F value $> F_{table}$ which is $176,831 > 3.09$ with a significant level of $0.000 < 0.05$. The results of the determinant coefficient test (R test) concluded that the *Adjusted R Square* was 0.842. This shows that 84.2% of the *Customer Loyalty variable* can be explained by the *Brand Image variable E-Service Quality* and *Customer satisfaction*. (While the remaining $100\% - 84.2\% = 15.8\%$) is influenced by other variables not examined in other studies.
- All independent and dependent variables as well as mediation from statistical test results are included in the good category range
- Based on the discussion related to partial hypothesis testing (T test) in Model I which states that the X1 variable, namely *Brand Image* , is influential and significant.
- Based on the discussion related to partial hypothesis testing (T test) in Model I which states that the X2 variable, namely *E-Service Quality* , is influential and significant.
- Based on the discussion related to partial hypothesis testing (T test) in Model II which states that the X1 variable, namely *Brand Image* , is influential and significant.
- Based on the discussion related to partial hypothesis testing (T test) in Model II which states that the X2 variable is *E-Service Quality* influential and significant.
- Based on the discussion related to partial hypothesis testing (T test) in Model II which states that variable Z, namely *Customer Satisfaction* , is influential and significant.

6. Conclusion

- All independent and dependent variables as well as mediation from statistical test results are included in the good category range
- The use of e-wallet for food and beverage payments has been well implemented in Subang
- Consumer satisfaction as a mediating variable has a significant effect

References

- Alma, Buchari. 2014. *Marketing Management and Service Marketing*. Bandung : Alphabeta.
- Armstrong and Kotler. 2015 *Marketing An Introduction*. England : Pearson Education Limited.
- Gupta, Jee Om, Singh Anurag. 2017. “ Impact of Relationship Management on Customer Loyalty of e-wallet Users: A Study of Paytm Enterprise. *SMS ” Journal of Entrepreneurship & Innovation*. Vol.3, No.2. pp.42-50.
- Hasim, Muhammad Asyraf, et al. 2020. “ Customer Expectations in E-wallet Services ”. *European Journal of Molecular & Clinical Medicine*. Vol.07, No.03.
- Rahayu, Rurie Wiedya 2018. “ The Influence of Perceived Benefits, Perceptions of Ease, Perception of Risk, and Technological Innovation on the Gopay Application from PT. Gojek Indonesia ”. *Thesis of Bachelor Degree Program in Accounting, Islamic University of Indonesia, Yogyakarta*, h. 5-
- Sangjae, Lee & Kun, Chang Lee. 2020. “ Comparative Study of Service Quality on VIP Customer Satisfaction in Internet Banking ” South Korea Case. *MDPI Sustainability*.
- Sugiyono. 2018. *Business Research Methods Quantitative, Qualitative, Combination , and R&D Approaches*. Edition 3. Bandung: Alphabeta.
- Tjiptono, Fandy. 2014. *Service Marketing. Principles, Applications, Research*. Yogyakarta : ANDI.
- Valencia, Devona and Layman, Chrisanty, V. 2021. “ E-wallet Service Innovation, Service Delivery, and Customer Satisfaction on Loyalty Within ShopeePay in Indonesia . *Journal of Ultima Management . Vol. 13, No.1*
- Wibowo, Setyo Ferry, et al, 2015. " The Effect of Perceived Benefits, Perceived Ease, Service Features, and Trust on Interest in Using E-Money Cards , " *JRMS Indonesian Science Management Research Journal, Vol. 6, No. 1*.
- Yadav, Miklesh Prasar & Arora, Madhu. 2018 . “ A Study on Impact on Customer Satisfaction for E-wallet Using Path Analysis model ” . *Proceedings of the 4th International Conference on Computers and Management*.