

# Determining Bank 4.0 Customer Loyalty

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## ABSTRACT

This study aims to investigate the effects of both experiential quality and customer trust in the formation of Bank 4.0 customer loyalty. To answer the proposed research objectives, this study distributed 205 self-administered questionnaires into digital Bank 4.0 customers in Greater Malang region, East-Java Province, Indonesia. Partial Least Squares technique was employed to analyse the data. The results showed that both experiential quality and customer trust were the predictors of customer loyalty. Apart from its essential effect on customer loyalty, experiential quality also has a significant effect in creating customer trust. The mediating analysis found that customer trust mediated the effect of experiential quality on customer loyalty. Upon the completion of research objectives, this study provides both theoretical and practical contributions.

**Keywords:** *Bank 4.0, customer loyalty, customer trust, experiential quality*

## 1. INTRODUCTION

The development of internet technology causes the rapid changes in many sectors including banking sector [1]. Bank 4.0 is one of new services offered by banking sector as the results from internet technology enhancement. While many banks have offered Bank 4.0 services, lack of published studies found in the literatures. [2] suggested that Bank 4.0 is a banking service delivered real-time using digital technology and artificial intelligent without any requirements for physical interaction between customers and service providers. As the nature of Bank 4.0 is different with the common e-banking services, there is a need to do further exploration about the application on Bank 4.0.

Bank marketing literatures suggest the customer loyalty is a crucial element as it will provide many benefits for the bank [1], [3], [4]. Refer to stimulus-organism-response (S-O-R) paradigm [5], individuals need to have a stimulus in performing particular response. Previous studies contended that experiential quality as a stimulus received by customers plays important roles in affecting individual's internal states leading to a particular behavior such as customer loyalty. Studies in banking sector notes that trust is individual's internal state affecting customer loyalty [4], [6]. To have a high customer trust, a bank needs to provide an excellent stimulus to the customers. [4] explained that experiential quality is one of potential contributors in creating customer trust.

Although the notion of experiential quality, customer trust and customer loyalty have been investigated widely in the area of banking sector, in the knowledge of authors, there is no study has investigated these constructs in the area of Bank 4.0. Thus, this study aims to investigate the role of experiential quality and customer trust in the formation of customer loyalty. Upon the completion of this study, both theoretical and practical contributions are provided.

## 2. LITERATURE REVIEW

### 2.1. S-O-R Paradigm and Customer Loyalty

Stimulus – organism – response (S-O-R) paradigm is a conceptual framework explaining about the formation of individual's response [5]. This framework explained that individual's response is a result of stimulus mediated by an internal state. This framework has been used widely in marketing domain to explain the formation of customer loyalty [7], [8]. These studies suggested that stimuli such as service quality, good experience and brand image are important stimuli in generating customer loyalty.

Theoretically, the notion of customer loyalty can be divided into three concepts [9]. It is suggested that loyalty might be behavioral loyalty, attitudinal loyalty and composite loyalty. For this study, the concept of attitudinal loyalty of behavioral intention is used to measure the construct of customer loyalty.

### 2.2. Determinants of Customer Loyalty

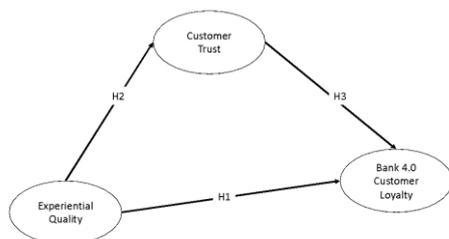
The framework of S-O-R suggested that to perform a particular behavior, individuals need to receive stimulus. Marketing domain explained that experiential quality has a positive significant effect on customer loyalty. Scholars [10], [11] argued that the better experience quality the higher customer loyalty will be. [12] explained that experience is a result of the interaction between customers and the service providers. In the context of Bank 4.0, experience is about the interaction between customers and the Bank 4.0 application as well as the support system behind the services. Hence, in this context, Bank 4.0 experiential quality is defined as the superior interaction between Bank 4.0 users and the service provider including the infrastructure.

Apart from its effect on customer loyalty, experiential quality has also been recognized as the predictor of customer trust. [1] explained that customer trust is about the believe of customer about the ability of provider in performing the services. Previous studies suggested that the higher experiential quality is, the higher customer trust will be [4], [13].

As individual’s internal state, customer trust plays an important role in forming customer loyalty. Previous studies indicated the significant effect of customer trust on customer loyalty [14], [15]. These studies explained that the higher customer trust is, the higher customer loyalty will be. Based on these literature review:

- H1 : experiential quality has a positive significant effect on Bank 4.0 customer loyalty
- H2 : experiential quality has a positive significant effect on customer trust
- H3 : customer trust has a positive significant effect on Bank 4.0 customer loyalty
- H4 : customer trust mediated the effect of experiential quality on Bank 4.0 customer loyalty

Figure 1 depicted the conceptual model proposed in this study



H4: Customer trust mediates the effect of experiential quality on Bank 4.0 customer loyalty

Figure 1. Conceptual Model

### 3. METHODS

Two hundred and fifty self-administered questionnaires were distributed into digital Bank 4.0 customer in Greater Malang region, East-Java Province, Indonesia. However, only 205 questionnaires were completed and might be analyzed yielded 80.8% response rate. The demography profiles emerged from the survey are: 67.32% are male, around 61% are aged between 31 and 50. 59.40% have undergraduate degree, 50.49% are professional workers and around 50% have income between Rp.5.000.000 and Rp.10.000.000. Table. 1 summarizes the respondents’ demography profile. To analyze the data, this study used Partial Least Squares (PLS) with smartPLS 3.2. In analyzing the data, three steps PLS name outer model evaluation, inner model evaluation and Hypothesis test were performed.

Table 1. Respondent Profile

Variable		Sample	
		n	%
Gender	Male	136	67.32
	Female	66	32.67
Age	< 18	16	7.92
	18 - 30	40	19.80
	31 – 40	69	34.15
	41 – 50	55	27.22
	51 - 60	17	8.41
	>60	5	2.47
Education	High School	24	11.88
	Diploma	45	22.27
	Undegraduate	120	59.40
	Postgraduate	10	4.95
	Doctoral	3	1.48
Occupation	Government	77	38.11
	Professional	102	50.49
	Entrepreneur	21	10.40
	Student	1	0.49
	Other	1	0.49
Income	Rp. 1.000.000 – Rp. 5.000.000	73	36.13
	Rp. 5.000.000 – Rp. 10.000.000	100	49.50
	> Rp. 10.000.000	29	14.35

## 4. RESULTS

### 4.1. Outer Model Evaluation

Prior testing the proposed hypotheses, both outer and inner model were conducted to ensure the robustness of model. For this study outer model evaluation was conducted through three tests. They are convergent validity, discriminant validity and uni-dimensionality. Convergent validity was conducted through evaluating the score of outer loading and average variance extracted (AVE). To be free from convergent validity problems, the score of outer loading must be above than 0.7 for each items and AVE more than 0.5. The convergent analysis indicated that the score of outer loading varies between 0.876 and 0.943; and AVE varies between 0.775 and 0.833. This results mean there is no convergent validity problem indicated.

Discriminant validity analysis was conducted through comparing the score of square-root of AVE with the correlation among constructs [16]. For this study showed that the score of square-root of AVE for each construct is higher than its correlation with other variables. Thus, there is no discriminant validity detected.

Composite reliability was conducted to evaluate the uni-dimensionality of construct. To be uni-dimension, a construct must have composite reliability more than 0.7. For this study the score of composite reliability varies between 0.912 and 0.938. Thus, all constructs is uni-dimension. Table 2 summarizes the results of outer model evaluation.

**Table 2. Outer Model Evaluation**

Construct	Outer Loading	AVE	CR	CL	CT	EQ
CL1	0.876	0.775	0.912	0.880		
CL2	0.907					
CL3	0.857					
TR1	0.876	0.833	0.937	0.587	0.913	
TR2	0.917					
TR3	0.943					
EXP1	0.912	0.828	0.935	0.646	0.585	0.910
EXP2	0.935					
EXP3	0.882					

### 4.2. Inner Model Evaluation

Inner model evaluation was conducted to confirm the robustness of structural model. For this study, inner model evaluation was reflected through the score of coefficient determination, predictive relevance and goodness of fit index [17]. The following section discusses the results of inner model evaluation.

The score of coefficient determination ranged between xx and xx. As PLS aims to do a prediction, there is no cut-off value for the score coefficient determination [17]. Hence, the higher the score coefficient of determination is, the better the structural model will be. The estimation showed that the coefficient of determination ranged between 0.342 and 0.483.

Apart from coefficient of determination, to evaluate the robustness of structural model this study relies on the score of predictive relevance. [18] suggest that the score of predictive relevance must be larger than zero. For this study the score of predictive relevance varies between 0.523 and 0.623

Based on the score of coefficient determination and predictive relevance it can be concluded that the structural model is robust, hence hypotheses might be tested. Table 3 summarizes the results of inner model evaluation.

**Table 3. Inner Model Evaluation**

	R <sup>2</sup>	Q <sup>2</sup>
CL	0.483	0.523
CT	0.342	0.623
EQ		0.621

### 4.3. Hypotheses Test

Hypothesis 1 suggested the effect of experiential quality on customer loyalty. The statistical analysis showed that experiential quality has a positive significant effect on customer loyalty (b = 0.449; t = 4.178). It means Hypothesis 1 is supported. Similar to its effect on customer loyalty, this study indicated the positive significant effect of experiential quality on customer trust (b = 0.581; t = 8.059) as suggested by Hypothesis 2. The effect of customer trust on customer loyalty was suggested by Hypothesis 3. The statistical estimation found that customer trust has a positive significant effect on customer loyalty (b = 0.327; t = 3.195). Thus Hypothesis 3 is supported. The indirect effect of experiential quality on customer loyalty through customer trust was predicted by Hypothesis 4. The mediating analysis revealed that customer trust significantly mediated the effect of experiential quality on customer loyalty. Hence, Hypothesis 4 is supported. Table 4 summarizes the results of Hypothesis test.

**Table 4. Hypotheses Test**

	Path	Coefficient	t-statistic	
H1	EQ → CL	0.449	4.178	Supported
H2	EQ → CT	0.581	8.059	Supported
H3	CT → CL	0.327	3.195	Supported
H4	EQ → CT → CL	0.192	2.778	Supported

## 5. DISCUSSION AND CONCLUSION

Upon the completion of research objectives, this study contributed to both theoretical and practical perspectives. For theoretical contribution, this study explained the

interrelationship among experiential quality, customer trust and customer loyalty in the domain of Bank 4.0. This study validated the previous studies suggested the importance of experiential quality in forming customer loyalty [4], [13], [19]. The positive direct effect of experiential quality on customer loyalty indicated that the positive experience received by the customer upon the uses of Bank 4.0 is, the higher customer loyalty will be. In addition, theoretically this study showed the importance of customer trust on customer loyalty. The positive significant effect of customer trust on customer loyalty in accord to previous studies such as [20] and [21] who suggested the importance of trust on loyalty. Last, this study theoretically revealed that in affecting Bank 4.0 customer loyalty, experiential loyalty does not only have a direct but also indirect effect through customer trust.

Apart from its theoretical contributions, this study also offered practical implications. To begin with Bank 4.0 service provider should enhance customer experience by giving good quality services and systems. Providing excellent services and zero mistakes system will enhance the quality of experience from customers in using Bank 4.0 services. In addition, since customer trust has an important role both as the predictor of customer loyalty as well as mediating the effect of experiential quality on customer loyalty, Bank 4.0 providers should transparent in managing the services. Moreover, Bank 4.0 provider should also maintain the safety of customers when they are doing transactions through the application.

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