

## The Adoption of SERVQUAL Model on the Study of Customer Satisfaction of ACLEDA Unity Toanchet

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### ABSTRACT

*This study aims to analyze customer satisfaction with ToanChet, a local mobile banking app of Cambodia, using the service quality model or SERVQUAL. ToanChet is based on service quality, reliability, Assurance, Tangibles, Empathy and Responsiveness. The study employed a quantitative approach with a sample size of more than 120 people to analyze service quality in the app. All dimensions of customer satisfaction are strongly associated statistically while there are rooms for the app to be improved. The study shows that the customers are satisfied with the overall service quality. The study is a useful contribution to the related parties, especially ACLEDA Bank and customers. Further studies should be conducted in some other ways such as different sample size, sampling method, country, comparison, research design approach, companies or banks and models.*

**Keywords:** SERVQUAL, customer satisfaction, mobile banking.

## 1. Introduction

Service quality is the ability to satisfy customer through the performance of service providers. It is very important in the service sector because it has always been identified as the positive connection that can result in profits and customer satisfaction (Kalidas, 2014). Notably, financial sector companies strategically compete to increase their market share of income. Among these companies, the banks have changed dramatically by shifting from the traditional practice to the modern system of branchless banking to serve their customers even better. Adopting state-of-the-art technology has allowed banks to update themselves to another level and ingeniously adapt to the banking innovation and enlarge their numbers of customer base (Saleem & Rashid, 2011).

Mobile banking is a new idea and trend that have arisen over the recent years, creating new streaming in the finance and manufacturing fields. Mobile banking has the undertakings as it is directed by mobile phone, a wireless platform for the development of value in banking transactions by clients (AMIRI & Faghani, 2012). Mobile banking system is convenient because of its flexibility for customers to do the transactions anywhere and anytime at ease. Delivering quality service in a new and competitive environment is the secret to a sustainable competitive advantage. Satisfying customers has thus become a major target for professionals, administrators and academics. Satisfaction of customers could bring a positive impact on the organization's productivity (Saleem & Rashid, 2011)

There are not many documents accessible about the study on this issue in Cambodia, and mostly the focus areas are not about mobile banking. For instance, there are research studies about Cambodia's health service quality (Yasuoka, Poudel, Ly, Nguon, Soheat & Jimba, 2012, Hasegawa, Yasuoka, Ly, Nguon & Jimba, 2013, Soeters & Griffiths, 2003), education quality (Chen, Sok & Sok, 2007), bus service quality (Sum, Champahom, Ratanavaraha & Jomnonkwao, 2019; Ok & Hengsadeeikul, 2018). There is a study conducted on the service quality of One Window Service Office using SERVQUAL Model. This study mainly focusses on one facility that combines the government services and information in order to save time and effort of citizens to get the service that they need. In addition, the study focused on the perception of citizens' satisfaction. Thus, the researcher suggested and encouraged other researchers to focus on the specific services rather than solely to work on the study of customer satisfaction of the service (Vutha, 2013). Therefore, this current study aims to fill in the gap of the previous studies by examining ACLEDA customers' satisfaction with ACLEDA ToanChet using SERVQUAL Model.

### 1.1 Research objective and research question

The objective of this research is to analyze customer satisfaction with ACLEDA ToanChet by adopting SERVQUAL Model. In this regard, the study aims to answer one research question, "To what extent are customers satisfied with the service quality of ACLEDA ToanChet?"

## 1.2 Significance of the study

This study is contributed to banks, microfinance institution and customers by showing the impacts, root problem, solutions and recommendation to improve the service delivery to customers by understanding their needs and wants. The study also gives insight for the companies to adopt the convenient and modern options to reach the customer's preferences that obtain the valued customers and attract new target customers.

## 2. Literature Review

### 2.1 Customer satisfaction

According to Zhang, Vonderembse, & Lim (2003), customer satisfaction is the degree in which customers feel about the worthiness of the price they have paid for the product or service and they feel that how much they have paid for are worth it. Some researchers believe that customer's satisfaction is reaction in terms of emotion toward the gap between what they have expected and what they receive. Customer satisfaction can be measured as the satisfaction from the previous attributes, such as the reward and expectation. Alternatively, it is the conceptual response of the customer to the purchase and use of the product or service that come from the comparison to the expectation. Cengiz (2010) asserts that customer satisfaction could not only be defined by the standard or the quality of the products or services, but by the relationship between the customer and the service provider.

### 2.2 Service quality

There is still a debate for more than two decades about the definition of service quality (Prakash & Mohanty, 2013). Service quality is the customer's impression on the service providers and their services. In the literature term, service quality has been defined as the overall assessment on the performance of the services evaluated by the customers (Sharma & Malviya, 2011). However, some argue that service quality is a global judgement or attitude relating to a particular service (Fogli, 2006).

Customer satisfaction has a significant connection with the service quality of the product or service. Service quality has a positive impact on the customer satisfaction, which means that the better the service, the better customer satisfaction. Cambodia mobile banking app ToanChet needs to scale up its service quality in order to measure the satisfaction that customers have on the app. A model, which measures the service quality, is needed to scale the ToanChet service quality (Desiyanti, Sudja, & Martini, 2018).

### 2.3 Customer expectation

Customer expectation has been defined as what customers want from products or services. It is developed from what is created in the minds of the customers according to their individual experiences and preferences (Bayraktar, 2020).

## 2.4 Customer perception

Customer perception is prejudiced by the experiences that customers had already received from the similar services or products (Lekhanya & Dlamini, 2017). Customer perception of the service quality is based on the evaluation of a particular service delivery (Mmutle, 2017). Lekhanya and Dlamini (2017) say that customer perception can be biased by previous experiences.

## 2.5 Conceptual framework

Model (SERVQUAL) was used to analyze customer satisfaction on ACLEDA ToanChet. It mainly focuses on the Gap 5 of customer expected service to perceived service. This is the adopted framework from the previous study (AMIRI & Faghani, 2012).

SERVQUAL model are Reliability, Assurance, Tangibles, Responsiveness, Empathy, which is also known as RATER model (Buttle, 1996, p.9).

- Reliability: the ability to perform the promised service dependably and accurately.
- Assurance: employee's knowledge and courtesy and their ability to inspire trust and confidence.
- Tangibles: appearance of physical facilities, equipment, personnel.
- Empathy: caring, customer understanding, easy to access, good communication and attention have been provided to customers.
- Responsiveness: the willingness to help customers and provide prompt service (Naik, Gantasala & Prabhakar, 2010).

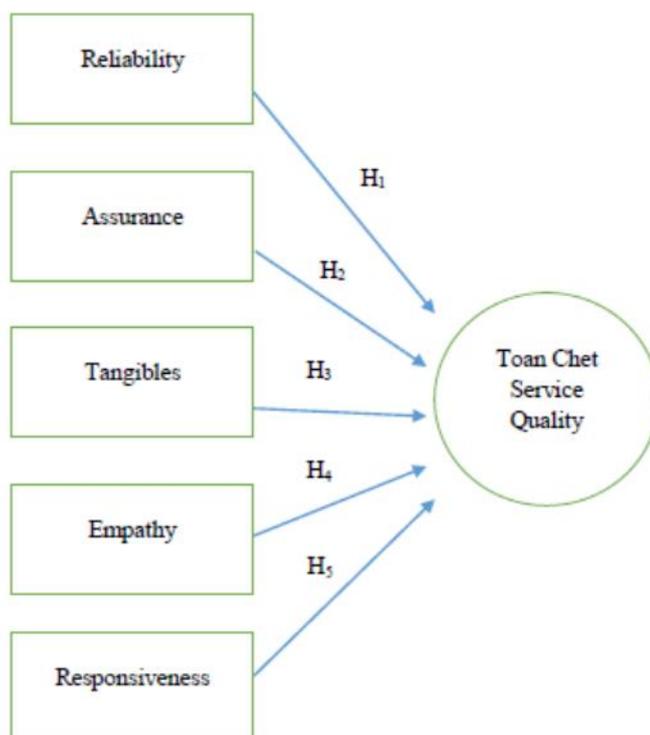


Figure 1: Conceptual Model

## 2.6 Research hypothesis

ToanChet is a mobile banking app was developed and based in Phnom Penh, Cambodia. The study will test five hypotheses focusing on the service quality of a mobile banking app in the industry of mobile banking in Cambodia or ToanChet's app service quality dimensions on customer satisfaction will be measured.

- H1: Reliability has a positive impact on service quality of ACLEDA ToanChet.
- H2: Assurance has a positive impact on service quality of ACLEDA ToanChet.
- H3: Tangibles has a positive impact on service quality of ACLEDA ToanChet.
- H4: Empathy has a positive impact on service quality of ACLEDA ToanChet.
- H5: Responsiveness has a positive impact on service quality of ACLEDA ToanChet.

## 3. Methods

### 3.1 Research design

The study employed quantitative approach to examine customer satisfaction with the service quality of ACLEDA ToanChet. In other words, the quantitative method was used in this research study to answer the research question.

### 3.2 Sampling and sampling frame

The study applied convenience sampling because it might be impossible to get the list of ToanChet users due to the privacy of the bank data and the respondents to be selected were those who were near the researcher. The respondents were selected at ACLEDA Bank Plc, with the assistance of the bank staff, to identify the ToanChet users and sought the approval to participate in the study. Thus, convenience sampling is more suitable for this study and Cambodia current situation of COVID-19 pandemic. For the sample size, the numbers were calculated by the using the formula of Cochram (1977). There are two steps involved in the calculation such as calculating sample size for infinite population and adjusting sample size to the required population. The percentage of 4300 populations is 50, confidence level 92% and error is 0.08.

**Step 1:** sample size for Infinite Population calculation

$$S = [ Z^2 \times P (1 - P) ] / M^2$$

$$S = (1.75)^2 \times 0.5 \times (1-0.5) / 0.08^2 = 119.62$$

**Step 2:** Adjust the sample size to the Required Population

$$\text{Adj. } S = S / [ 1 + [(S - 1) / N] ]$$

$$\text{Adj. } S = 119.62 / [ 1 + [(119.62 - 1) / 14300] ] = 116.40$$

S is sample size; Z is the given confidence level of Z value; P is the percentage of population; M is the confidence interval or error; and N is the population.

So, the sample size to be conducted is rounded up to 120.

### 3.3 Research tool

The questionnaire was selected for this study. The questionnaire is divided into three categories such as demographic profile, ACLEDA ToanChet and customer satisfaction. The respondents answered 32 questions about their expectation and perception toward ToanChet. In the last part of the question, customers could make suggestions to improve service quality. Customers could also suggest what they would like to do to improve the service quality and reached level of customer satisfaction (Gibson, 2009). The questionnaire was sent as the paper-based questionnaire and the main location to collect the data was located at ACLEDA Bank Head office based in Phnom Penh, Cambodia. The questionnaire was designed in both Khmer and English versions and sent out to the respondents who are the ToanChet users (Ndamnsa, 2013).

In preparation of the major study, the researcher chose a number of samples to pilot the questionnaire. In the pilot study, the validity and reliability of the questionnaire were checked as it is considered the main way to look through in the questionnaire (Srinivasan & Lohith, 2017). For the pilot sample size, Iddagoda (2017) suggested that it should be 10 to 20 in size, so before conducting the actual data collection, 20 pilot tests via E-Surveys were used to test the questionnaires. After the Cronbach's Alpha data analysis, the tool was proved reliable at 93.5%.

Reliability refers to the degree to which a test is consistent and stable in measuring what it is intended to measure. Cronbach's alpha is used to test the internal consistency of the research tool and Cronbarch's alpha reliability. Coefficient is considered a measure of scale reliability. The result of the test of Cronbarch's Alpha of each variable greater than 0.7 means that all constructed variables and factors are reliable for the research (Nunnally, 1994)

Validity refers to the degree to which the test actually measures what it claims to measure. Validity tells whether the test scores are measuring the right things for a particular use of the test. It is also the extent to which inferences, conclusions, and decisions made on the basis of test scores are appropriate and meaningful (Livingston, Carlson, Bridgeman, Golub-smith & Stone, 2018).

The validity test is acceptable only if the statements in the research tool are correlated and understandable to the respondents, while reliability test is used to test the research instrument consistency and the result could be considered reliable when the percentages are close to +1. The outcomes of the Pilot Cronbach's Alpha are in acceptable level in both tests. The result for validity test of the research instrument showed that the SERVQUAL dimensions in the questionnaire are significantly correlated with one another, which leads to the conclusion that the items are valid to use for the major study. Per the respondents' comments, the questions in the research tool are understandable.

### 3.4 Data analysis

The study used quantitative data analysis, which employed both descriptive statistics and inferential statistics (Khan, Khan, Khan, Yar & Khan, 2014). Results came from the perception score of each statement minus the expectation score of every statement in the questionnaire (Almomani, 2017). In order to find each dimension result, the calculation of

the mean score of the statements in each dimension in perception extract expectation. This method was applied to every dimension of SERVQUAL in the survey and the result of the score coming from the means of each dimension.

For the inferential statistics, ANOVA was used. In this analysis process, Statistical Package for Social Sciences (SPSS) was an essential tool to use as a medium in extracting the data, data transformation and analysis (Thomes, 2018). ANOVA table focuses on F test as well as paired sample T test correlation which were essential for this study because it showed the result of the correlation between independent variables and dependent variables ((Monther & Mahadevan, 2019, p.114s). Service quality and customer satisfaction were found associated with one another.

#### 4. Results and Discussions

##### 4.1 Demographic factors

The research shows that the female respondents are in the higher percentages than the males. There are only 39 males in the total of 120 people, while females are 81, accounting for 67.5%. The ages of the respondents range from 18 to over 55. The age of 26-35 is the highest among all ages, which results in 37.5% of the total responses. Those aged 45-55 and over 55 are the least. The result also shows that the occupations of those surveyed are business people, employees, teachers, students and households. 78.3% of respondents are employers/employees and 1\10 of 120 people are business people.

Table 1: Demographic Factor

	Category	Frequency	Percentage
Gender	Male	39	32.5%
	Female	81	67.5%
Age	18-25	36	30.0%
	26-35	45	37.5%
	36-45	37	30.8%
	46-55	1	.8%
	Over 55	1	.8%
Occupation	Businessman/Woman	12	10.0%
	Employer/Employee	94	78.3%
	Teacher	5	4.2%
	Student	6	5.0%
	Household	3	2.5%

Correlation analysis describes the direction of the linear relationship; the values can appear differently as negative (-1) or positive (+1) to determine to statistical relationship, and the values can also occur in zero if there is no significant association within variables (Pallant & Manual, 2001). This table indicates the correlation result of the customer satisfaction, SERVQUAL and the dimensions. Notably, the values are significantly correlated. SERVQUAL dimension are significantly associated with the customer

satisfaction as can be seen in Table 2. Moreover, SERVQUAL and the customer satisfaction are also correlated among the variables in a positive string.

Table 2: Correlation

	1	2	3	4	5	6	7
1. Reliability	1						
2. Assurance	.743**	1					
3. Tangibles	.653**	.801**	1				
4. Empathy	.638**	.618**	.688**	1			
5. Responsiveness	.608**	.618**	.694**	.732**	1		
6. Overall Satisfaction	.510**	.601**	.577**	.494**	.524**	1	
7. SERVQUAL	.837**	.870**	.888**	.859**	.856**	.627**	1

## 4.2 Key findings

SERVQUAL assesses service quality by measuring the actual perception of the service to the expectation of the service. Hence, service quality = consumer’s perception (P) – consumer’s expectation (E). The gap between the perceived service and expected service shows the customer’s satisfactory level, which means that high service quality leads to high satisfaction. For instance, positive score of SERVQUAL formula indicates customer satisfaction while negative score represents customer dissatisfaction (Almomani, 2017).

Table 3: Perceptions, Expectations and GAP Scores

Dimension	Perception	Expectation	GAP Score
<b>Reliability</b>	<b>4.1027</b>	<b>4.0333</b>	<b>0.0694</b>
The use of ToanChet is reliable.	4.35	4.05	0.3
ToanChet provides its service quickly.	4.2916	4.0083	0.2833
ToanChet is error free.	3.6666	4.0416	-0.375
<b>Assurance</b>	<b>4.2625</b>	<b>4.05</b>	<b>0.2125</b>
I feel secure while making transactions through ToanChet.	4.2333	4.0166	0.2166
ToanChet does not share my personal information with others.	4.2916	4.0833	0.2083
<b>Tangibility</b>	<b>4.1291</b>	<b>4.075</b>	<b>0.0541</b>
ToanChet technology is up to date.	4.2583	4.1333	0.125
There are a lot of supporting information and guidelines on how to use the app.	4	4.0166	-0.0166
<b>Empathy</b>	<b>4.1666</b>	<b>4.0791</b>	<b>0.0875</b>
ToanChet is available all the time.	4.175	4.0833	0.0916
ToanChet provides personal attention to customers.	4.1583	4.075	0.0833

(continued)

Table 3: Perceptions, Expectations and GAP Scores(continued)

Dimension	Perception	Expectation	GAP Score
<b>Responsiveness</b>	<b>4.0361</b>	<b>4.0333</b>	<b>0.0027</b>
All ToanChet relevant transaction confirmation details are sent by SMS or email within 24 hours.	4.0916	4.0833	0.0083
I am always informed by the app when the services will be performed.	4.05	3.9666	0.0833
Response of service through mobile app is very quick and prompt.	3.9666	4.05	-0.0833
<b>SERVQUAL score (Perception – Expectation)</b>	<b>4.1394</b>	<b>4.0541</b>	<b>0.0852</b>

i) Reliability

Two of the statements used to measure the service quality of reliability of reliability dimension are positive. The highest gap is "The use of ToanChet is reliable" ranking at +0.3. Overall, the mean score of reliability (0.0694) has a positive point, especially on the quickness and reliability of the app.

ii) Assurance

ToanChet is a mobile banking app that aims to inspire the trust of its users. Customers are satisfied with the assurance dimension and secureness in using the app. The highest score was 0.2166, which is the highest score for the statement mentioned that customer feel secure when using the bank transaction.

iii) Tangibility

ToanChet's service quality meets customer expectations as the gap score is positive (0.0541) Customers are not satisfied with the supporting documents/guidelines as well as on how to use the app (-0.0166) The bank needs to take an extra care on the lack point to improve for the future update.

iv) Empathy

The statement "ToanChet is available all the time." has a positive gap score (0.0916) in the empathy dimension. Customers totally agreed that ToanChet provides personal attention for them and enables them to use the app anywhere anytime rather than directly going to the bank. This means that they feel better than performing banking transactions physically at the bank.

v) Responsiveness

ToanChet's responsiveness is determined by the confirmation via SMS, performance information and speed of the response in the service. Customers are satisfied with all the dimension of the service quality but unsatisfied with the prompt service section.

vi) Customer satisfaction

ToanChet is a mobile banking app that allows users to transfer money between bank accounts. The survey showed that nearly 60% of the respondents choose "Satisfied", 32.5% extremely satisfied in using the app and 8.3% neither satisfied nor dissatisfied.

❖ Cronbach Alpha

Cronbach Alpha is used to scale internally of the questions, and the result could range from zero to one (Pallant & Manual, 2001) As long as the value is 60/100, the data is considered acceptable (Bell, Bryman & Harley, 2018). The analysis indicates the Cronbach Alpha result of each dimension of SERVQUAL and all of the values demonstrate acceptable states in the tools as the result of each dimension exceeds 0.73.

❖ Reliability

The reliability test of 120 samples contributing to ToanChet users are analyzed to explore the degree of consistency of the research tool. The result shows that there is a slight difference between the results of the pilot 20 samples compared to 120 answers; however, the outcomes are still in good terms within the range to what is called reliable percentages close to the perfect term (0.912).

❖ Correlation Test

The results from the correlational analysis indicate that the correlations between the customer satisfaction and the dimensions are remarkably correlated. The correlation is significant because it builds a bridge to correlate between the variables in a positive string. In addition to the correlation, the measurements also build a bridge between the service provider and customer satisfaction. In the correlational analysis, all SERVQUAL dimensions are significantly correlated at the 0.01 level (2-tailed).

❖ Hypotheses Testing

Table 4: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	25.600	5	5.120	15.779	.000 <sup>b</sup>
1 Residual	36.991	114	.324		
Total	62.592	119			

a. Dependent Variable: Overall Satisfaction

b. Predictors: (Constant), Responsiveness, Reliability, Tangibles, Empathy, Assurance

As can be seen in the ANOVA table 4, there is a strong connection between dependent and independent variables. The correlation shows the significant relationship of both variables at less than 0.01; thereby, the proposed hypotheses cannot be rejected.

Table 5: Hypothesis

Hypotheses	Sig.	Result
H1: Reliability has a positive impact on service quality of ACLEDA ToChet.	0.000**	Support
H2: Assurance has a positive impact on service quality of ACLEDA ToanChet.	0.000**	Support
H3: Tangibles has a positive impact on service quality of ACLEDA ToanChet.	0.000**	Support
H4: Empathy has a positive impact on service quality of ACLEDA ToanChet.	0.000**	Support
H5: Responsiveness has a positive impact on service quality of ACLEDA ToanChet.	0.000**	Support

## 4.2 Discussion

The study was conducted mainly to measure the service quality of ACLEDA's ToanChet in order to link with customer satisfaction by adopting a model called SERVQUAL. A total number of 120 people participated in the survey. The gap analysis of the perception and expectation score is the major way to calculate the result.

The result of the gap score measurement of the perception score with the expectation score shows that all dimensions such as reliability, assurance, tangibles, empathy and responsiveness are satisfactory to customers. The lowest gap score of the dimensions is responsiveness which is 0.0027 in the variance between perception and expectation. In the five dimensions, there are 12 questions to be asked in both perceptions and expectations.

Despite a few negative statements, ToanChet's overall performance remains at a satisfactory level. The positive feedback statements are a lot more than the negative statements. Customers feel secure while making the transactions due to the confidential customer data. ToanChet maintains a service standard in providing personal attention to customers; customers are also satisfied that all relevant transactions are sent to inform customers within 24 hours and always informed when app is ready to perform.

All the dimensions in SERVQUAL of this research are all in the satisfactory level and are significantly correlated with service quality and customer satisfaction. The result supports Asfour and Haddad (2014) which found there is a positive link between mobile banking service and customer satisfaction.

A study on service quality and customer satisfaction in Umea has found that customers are not satisfied with the service since the expectations are more than what have been provided (Ndamnsa, 2013). This was supported by another research on the assessment of service quality and customer satisfaction. However, Temba's findings were contradicted by this research, which has found customer is in the unsatisfactory level since the expectation scores are higher (Temba, 2013).

Customer satisfaction is accepted as the P-value is lower than the alpha, but responsiveness. There is a slight contradiction on the responsiveness as the hypothesis is rejected by some of the relationships between service quality. Alabboodi (2019) conducted a study on customer satisfaction effecting on service quality and has proven that assurance, tangibles, empathy, and reliability are accepted.

SERVQUAL is a valid measurement to measure the service quality and customer satisfaction of ToanChet. The overall service quality is satisfactory as most of the points are in an advantage level. However, it still needs some updates to seek the desired level of standard of service quality.

## **5. Conclusion and Recommendation**

### **5.1 Conclusion**

In order to meet customer expectations, service quality is the key to obtaining competitive advantage in this service delivered market as excellent services help to sustain customers' trust. Different effective strategies are being developed in order to meet the quality expectation, which leads to the rise in customer satisfaction and especially its relationship with customer to receive loyalty.

The main purpose of this study is to analyze customer satisfaction on ACLEDA ToanChet by adopting SERVQUAL Model. It is significant because there have not been any existing studies which investigate service quality and customer satisfaction in mobile banking in Cambodia so far. This study can serve as the starting point for other researchers who wish to further their studies.

All variables are strongly correlated and they are statistically significant, showing that there are connections among the variables. All proposed hypotheses have been accepted in this study. One of the most significant findings emerging is that all the variables are highly correlated with each other.

### **5.2 Implications for finance and banking**

Bank policy makers can use the findings of this study to analyze the weaknesses and strengths for the future strategic plans and further updates on the app to close the negative gaps for reaching higher level of customer satisfaction. The study also contributes to service firms aiming to improve the quality standards to satisfy their existing and future customers. In other words, this study could be a great contribution for banking sector and its customers.

The SERVQUAL Model is based on the overall performance, which means different sectors can result differently because the numbers of the questions may be reduced. The new model or different dimension should be considered for application as it could lead to a reduction in the number of questions and the amount of time taken to answer them.

The service provider should consider investing in new technology because customers prefer using the app that operates smoothly without any errors or interruptions. The responses of the app need to be quick and prompt and it would be better if the confirmation SMS send to the app users faster than the current time spent because users do not want to wait for the SMS messages about the code or relevant transactions.

### **5.3 Limitations and future research**

This thesis can be considered as the first research study conducting on service quality to customer satisfaction of ACLEDA Unity ToanChet user in Cambodia. The sample size of the research study is still small and scope of the study area is only in Phnom Penh City.

Further research is recommended to conduct with a larger sample size in order to obtain a more generalizable result to the population.

Research can be conducted on the service quality of mobile banking apps of the same bank or different banks to compare them with each other and see whether they are better or worse. The results can also be compared from year to year so that it could show whether the app has been improved by comparing the gap score in different years. Alternatively, the options can be a variety of mobile bank apps compared with one another.

Qualitative approach could be considered in future research to seek further insights into the issue. In other words, the researcher could interview to obtain the opinions of the banking industry expert and the manager's perspectives.

In the future study, SERVQUAL model is a similar tool to the SERVPERF model, but the difference is that it focuses only on the perception measure rather than comparing perception to expectation. It is advisable that another clone model be considered.

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