# A COMPARATIVE ANALYSIS OF MALE AND FEMALE CUSTOMERS PERCEPTION OF BRILINK POS TERMINAL PERFORMANCE IN MANADO

ANALISA KOMPARATIF PERSEPSI PELANGGAN PRIA DAN WANITA TENTANG KINERJA POS TERMINAL BRILINK DI MANADO

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Abstract: The use of Point-of-Sales Terminals or also known as EDC Machine overcome problems that can come up when customers make a transaction. Some of the problems in question are security when carrying cash, consumer awareness about the existing non-cash system, perceived ease of transaction and of course the benefits that can be felt when transaction non-cash using POS Terminal EDC machine. This study aims to analyze whether there are significant differences between male and female customers perception on BRILink POS Terminal performance based on Security of Operation, Consumer Awareness, Perceived Ease of Use, and Perceived Usefulness. This research uses quantitative method with comparative analysis. Questionnaire in this case is used to collected data from respondents. This research tests through compare means, independent sample T-test in a sample of 100 respondents, divided 50 male and 50 female customers in Manado. Findings of this research indicate that there is no significant difference perception of male and female customers perception on BRILink POS Terminal performance. From the results, it is recommended for BRI Company continue to improve the service quality, especially in terms of consumer awareness about transactions at BRILink using POS Terminal.

Keywords: point-of-sales, security of operation, consumer awareness, peou, pu, BRILink

Abstrak: Penggunaan POS Terminal atau juga dikenal sebagai Mesin EDC mengatasi masalah ketika pelanggan melakukan transaksi. Beberapa masalah yang dimaksud adalah keamanan saat membawa uang tunai, kesadaran konsumen tentang sistem non tunai yang ada, kemudahan transaksi yang dirasakan dan manfaat yang bisa dirasakan ketika transaksi non tunai menggunakan mesin POS Terminal. Penelitian ini bertujuan untuk menganalisis apakah ada perbedaan yang signifikan antara persepsi pelanggan pria dan wanita pada kinerja POS Terminal BRILink berdasarkan Keamanan Operasi, Kesadaran Konsumen, Persepsi Penggunaan yang Mudah Digunakan, dan Persepsi Manfaat yang Digunakan. Penelitian ini menggunakan metode kuantitatif dengan analisis komparatif. Angket dalam hal ini digunakan untuk mengumpulkan data dari responden. Penelitian ini menguji melalui cara perbandingan, uji-T sampel independen dalam sampel 100 responden, 50 pelanggan pria dan 50 wanita di Manado. Temuan penelitian ini menunjukkan bahwa tidak ada perbedaan persepsi yang signifikan antara persepsi pelanggan pria dan wanita terhadap kinerja POS Terminal BRILink. Bagi BRI untuk terus meningkatkan kualitas layanan, terutama dalam hal kesadaran konsumen tentang transaksi di BRILink menggunakan POS Terminal

**Kata Kunci:** titik penjualan, keamanan operasi, kesadaram konsumen, persepsi keamanan pengguna, manfaat yang dirasakan, BRILink

#### INTRODUCTION

#### Research Background

Bank are now developing more easiness of payment through electronic payment such as mobile banking, internet banking, SMS banking, ATM, and POS Terminal. And also bank started campaigning about the use of electronic money. One of the goals to be achieved is financial freedom, so more people can access financial service from banks.

One of the conventional banks owned by the Indonesia government is Bank Rakyat Indonesia. BRI always strives to provide innovative and competitive products and service to meet the expectations and needs of customers, clients, and society in general. The bank issued a non-cash payment instrument that can be found anywhere to make payments and non-cash transaction. Banking services can also launch their network without having to create outlets, such as sub-branch offices, micro service, and BRILink. And BRILink are one of the service products owned by BRI.

BRILink service provides innovation in the world of finance, especially banking to facilitate access to people who do not yet banking services. BRILink using Point-of-Sales Terminal as the tools of transaction. POS Terminal is an electronic device used to process card payments at retail locations, such as restaurants, department store, and etc. BRI provides POS Terminal and is given to BRILink agents who have business or businesses to carry out banking service and/or other financial activities not through office networks.

In the other hand, there were appeared of new company that provide easiness of payment to reduce time and cost. In Indonesia there are OVO, LinkAja, DANA, Jenius, Grabpay, GoPaym and so on. Those mentioned before are way of electronic payment nowadays that might become a big competitor to bank's POS Terminal payment system.

But even though it seems that non-cash payments are in demand, it doesn't mean they don't have problems. If you want to do non-cash transactions, you must be ready to face problems with the system, transaction tools, and other problems. Based on the previous studies, in many context, there appears to be a consensus that men and women differ in shopping style, behavior and perception. Our study attempts to evaluate the gender differences between males and female in Consumer behaviors, due to their impact on the economy that is worth examining. According to the literature review, gender differences have been observed as an influence on consumer behaviors. Understanding how a male and a female can help marketing managers and sales. Therefore, we tried to understand how gender issues influence the behavior behavior of students in terms of security operation, consumer awareness, perceived ease of use and perceived usefulness.

## **Research Objective**

This Research paper aims to analyze if there is a significant difference of perceptions of POS Terminal performance between male and female BRILink customers.

# THEORETICAL REVIEW

## **Marketing**

According to Peter and Olson (2010:4), Marketing is the appropriate philosophy for conducting business. The marketing suggest an organization should satisfy consumer needs and wants to make profits.

## **Consumer Behavior**

According to Walters (1974:7), consumer behaviour is the process whereby individuals decide whether, what, when, where, how, and from whom to purchase goods and services.

#### Bank

According to Kasmir (2008:2), bank is a financial institution whose activities collect funds from the society in the form of savings and then distributed it back to the society, as well as providing other banking services.

## **Point-of-Sales System**

Point-of-sale (POS) systems are a central mechanism of transactions that take place in a trading environment. The system is typically used to calculate the price of an item based on its measurement, then display it to the customer and finally generate a receipt, label or other print out. (Australian Government NMI, 2012).

## **Security of Operation**

Security can be breached through network or data transaction and transmission attacks as well as through unauthorized access to an account by false authentication. Mbogo (2010) states that the use of personal identification numbers and secret codes for transactions increases the security and privacy issues and that the key requirements for electronic financial transactions are confidentiality authentications, data integrity, non-repudiation, anonymity and privacy.

#### **Consumer Awareness**

Consumer awareness is fundamental for online channel adoption (M'sallem & Mzoughi, 2009)

#### Perceived Ease of Use

Perception of ease of use is one construction in the original model of the Technology Acceptance Model. This has the effect of creating favorable perceptions, encouraging users to accept and use new systems, (Davis et al., 1989:320)

#### **Perceived Usefulness**

Perception usefulness (PU) is one of the main constructs of the technology acceptance model TAM in which it is defined as "the degree to which a person believes that using a particular system would enhance his or her job performance". (Davis et al., 1989:320)

#### **Previous Research**

In the previous research by Akintunde (2016) stated that study is to determine the importance of Point-of-Sales terminal cannot be overlooked because it is one of the electronic means of transaction.

The previous research by Ashish (2009) shows the benefits provided by customers to banks through the use of Machine EDCs and ATMs. This study also tried to argue about how the imposition of fees for EDC transactions for Machines and third-party ATMs functions as counterproductive to the banking system and makes the payment system inefficient.

Based on the previous research by Saidi (2018) stated there are three research innovations: first, it adopts a new measure of bank performance—the sortino index; second, it relates market risk exposure of banks to electronic payment technologies; and third, it controls for "without effects" of these innovations on bank performance using interacting dummies.

# **Conceptual Framework**

## **BRILINK POS TERMNAL**

- Security of Operation
- Consumer Awareness
- Perceived Ease of Use
- Perceived Usefulness

# Female Customers

- Security Operation
- Consumen Awareness
- Perceived ease of Use
- Perceived Usefulness

## Male Customers

- Security Operation
- Consumen Awareness
- Perceived Ease of Use
- Perceived Usefulness

Figure 1. Conceptual Framework

Source: Data Analysis Method

# **Research Hypothesis**

- H1: There is significant difference of Customer Perception based on Security Operation between male and female customer of BRILink POS Terminal
- H2: There is significant difference of Customer Perception based on Consumer Awareness between male and female customer of BRILink POS Terminal
- H3: There is significant difference of Customer Perception based on Perceived Ease of Use between male and female customer of BRILink POS Terminal
- H4: There is significant difference of Customer Perception based on Perceived Usefulness between male and female customer of BRILink POS Terminal

#### RESEARCH METHOD

## Research Approach

This research uses a comparative research design to comparing what customer male and female think about POS Terminal or EDC Machine performance based on security operation, consumer awareness, perceived ease of use, and perceived usefulness in Manado City.

#### Place and Time of Research

This research was conducted in Manado for three months, June to August, 2019.

## **Population and Sample**

Population in this research is all the customers of BRI. The sample size is 100 customers divided into 50 male and 50 female.

#### **Source of Data**

Primary data in this study is the result of the questionnaires. Secondary data in this study is about the various theories and related data. The data is taken from books, journals, and relevant literature from library and internet.

## **Operations Definition of Research Variable**

Table 1. Operational Definition of Research Variables

Variable	Defi <mark>nitio</mark> n	I <mark>ndic</mark> ator
Security of Operation	Process identifies critical information to determine if friendly actions can be observed by enemy intelligence, determines if information obtained by adversaries could be interpreted to be useful to them	Guaranteed transaction, Get transaction receipt, Maintained data confidentiality.
Consumer Awareness	Consumer is exposed to the product innovation; the consumer becomes aware of the new product but lacks information about it.	Knowledge of BRILink agents, Knowledge of EDC machines, Knowledge of the transaction system
Perceive ease of use	Perceived ease of Use is one construction in the original model of the Technology Acceptance Model. This has the effect of creating favorable perceptions, encouraging users to accept and use new systems	Easy to do transactions, Easy to get the place of transaction, The transaction is not complicated by the agent, Interaction with agents in the system explanation is clear and easy to understand

Perceived Usefulness

Perceived Usefulness is one of the main constructs of the technology acceptance model TAM in which it is defined as the degree to which a person believes that using a particular system would enhance his or her job performance

Use of the system is able to complete the transaction, Use of the system effective and efficient, Use of the system is beneficial to customers, Use of the system can increase the number of customer transactions

Source: Author's Note, 2019

## **Data Analysis Method**

# Validity and Reliability Test

Validity tests are used to measure the validity or validity of a questionnaire. The questions in the questionnaire can be said is valid if the correlation coefficient above 0.30 (Sugiyono 2013:40). Reliability is a test that shows the extent to which the stability and consistency of the measuring device used, thus providing relatively consistent results if the measurement is repeated. Cronbach's alpha is a measure of reliability that has values ranging from zero to one (Hair, 2010). And the Cronbach Alpha value is said to be reliable or acceptable if the value of Cronbach Alpha> 0.60 (Hair et.al, 2010).

## **Independent T-Test**

According to Sekaran and Bougie (2013), one sample t-test is used to test the hypothesis that the mean of the population from which a sample is drawn is equal to a comparison standard.

## **Normality Test**

Normality Test is done to find out whether the data taken comes from populations that are normally distributed or not. The purpose of normality test is to determine the distribution of data follow a normal distribution or not.

# RESULT AND DISCUSSION

Result Table 2. Validity Test

		SOP	CA	PEOU	PU	TOTAL
SOP	Pearson Correlation	1	.025	.190	.396**	.511**
	Sig. (2-tailed)		.807	.058	.000	.000
	N	100	100	100	100	100
CA	Pearson Correlation	.025	1	.268**	.085	.554**
	Sig. (2-tailed)	.807		.007	.403	.000
	N	100	100	100	100	150
PEOU	Pearson Correlation	.190	.268**	1	.479**	.782**
	Sig. (2-tailed)	.058	.007		.000	.000
	N	100	100	100	100	100
PU	Pearson Correlation	.396**	.085	.479**	1	.756**
	Sig. (2-tailed)	.000	.403	.000		.000
	N	100	100	100	100	100
TOTAL	Pearson Correlation	.511**	.554**	.782**	.756**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	100	100	100	1000	100

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed)

Source: Data Processed, 2019

Table 2 shows that the total correlation index is higher than 0.3 and below the significance level of 5%. Therefore, the data is considered valid.

Table 3.	Reliability	<b>Test Result</b>
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Cronbach's Alpha	N of Items
.756	5

Source: Data Processed, 2019

Table 3 shows that Alpha Cronbach is 0.756 which is above the acceptance limit of 0.6. Therefore, the research instrument is reliable.

# Independent t-Test

**Table 4. Group Statistics** 

Group Statistics							
	Gender N Mean St				Std. Error		
				Deviation	Mean		
Total Variable	Female	50	61.72	5.939	.840		
Total Variable	Male	50	62.60	6.916	.978		

Source: IBM SPSS Statistic 22.0 output 2019

From table 4, showed the result that the mean difference from total Male and total Female customers, where total Female customers 61.72 and total Male customers is 62.60. It means total Male Customers Perception of BRILink POS Terminal is more higher than total Female customers.

Table 5. Independent Sample t-Test Result

Independent Samples Test										
	Levene's Test									
	for Equality of									
	Variances				t-test for Equality of Means					
								Std.	95% Con	fidence
						Sig.	Mean	Error	Interval	of the
						(2-	Differ	Differe	Differ	ence
		F	Sig.	t	df	tailed)	ence	nce	Lower	Upper
Total	Equal variances	1,455	,231	,683	98	,496	,880	1,289	-1,678	3,438
Variable	assumed									
	Equal variances			,683	95,808	,497	,880	1,289	-1,679	3,439
	not assumed									

Source: SPSS Output, 2019

Based on the Independent Sample Test output table in the Equal Variances Assumed section, the Sig. (2-tailed) is 0.497 > 0.05, so as the basic of decision making in the Independent Sample t-test can be concluded that  $H_0$  is accepted and  $H_a$  is rejected. Thus it can be concluded that there is no a significant difference between Total Male Customers and Total Female Customers.

#### **Discussion**

In this study tries to answer the problem statement as described earlier in this thesis. Therefore, this study has identified there are no significant differences between male and female customers perception of BRILink POS Terminal.

#### **Security of Operation**

As shown from the results in this study there were is no significant differences in Male and Female customers perception because there is no different in security of operation carried out when male and female customers make a transactions at BRILink using POS Terminal EDC machine because customers perception about the security of operation on BRILink POS Terminal EDC machine are safe and secure. Issues of security of operations or perceived security remain profound in e-payment researches (Oteh, et. al., 2017; Osakwe and Okeke 2016; Adesina and Ayo 2010; Rusu and Shen, 2011) and continue show significant impact on e-payments adoption.

#### **Consumer Awareness**

As shown from the results in this study there were is no significant differences in Male customers and Female customers perception because there is no different in Consumer Awareness carried out when customers make a transactions at BRILink using POS Terminal EDC machine because customers perception about the consumer awareness of customers are no lack of knowledge for the system using BRILink POS Terminal. Consumer Awareness thus H3 is fully supported and validated. This finding partly agrees with Masinge (2010).

#### **Perceived Ease of Use**

As shown from the results in this study there were is no significant differences in Male customers and Female customers perception because there is no different in Perceived Ease of Use carried out when customers make a transactions at BRILink using POS Terminal EDC machine because customers perception about using BRILink POS Terminal is easy to do and easy to understand the system. Issues of Perceived Easy of Use hence is fully supported and validated. This finding agrees with Osakwe and Okeke (2016); Adesina and Ayo (2010); Dass and Pal, (2011); and Rusu and Shen, (2012).

## **Perceived Usefulness**

As shown from the results in this study there were is no significant differences in Male customers and Female customers perception because there is no different in Perceived Usefulness carried out when customers make a transactions at BRILink using POS Terminal EDC machine because using BRILink POS Terminal give benefit to customers. Issues of Perceived Usefulness thus is fully supported and validated. This finding agrees with Osakwe and Okeke (2016); Adesina and Ayo (2010); and Rusu and Shen, (2012).

## CONCLUSION AND RECOMMENDATION

## **Conclusions**

Based on the data analysis and discussions, the conclusion of this research outline as follows:

- 1. There is no significant difference in Male customers and Female customers perceptions of POS Terminal performance based on Security of Operation
- 2. There in no significant difference in Male customers and Female customers perceptions of POS Terminal performance based on Consumer Awareness
- 3. There in no significant difference in Male customers and Female customers perceptions of POS Terminal performance based on Perceived Ease of Use
- 4. There in no significant difference in Male customers and Female customers perceptions of POS Terminal performance based on Perceive Usefulness

#### Recommendations

Recommendations for this research are:

- 1. BRI Company should continue to improve the security of operation in transactions, especially regarding electronic money
- 2. BRI Company should continue to improve the quality of POS Terminal EDC Machine and about the network on device, so there will be no network breakdown or error during transactions.
- 3. BRI Company must increase consumer awareness through make movements to increase consumer awareness and people knowledge about the POS Terminal EDC Machine on the BRILink program.
- 4. There is no need for BRI to differentiate its marketing efforts to male and female customers of BRILink

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