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ECSI MODELLING FOR MSME CUSTOMER SATISFACTION DUE TO CASHLESS AND CASH TRANSACTIONS

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ABSTRACT

This paper aims to examine the effect of using traditional transaction (Cash) and non-cash transaction (Cashless) on customer satisfaction and loyalty in the MSME business using the European Customer Satisfaction Index (ECSI) model. ECSI is a model that can be used to figure out how strong and in which way do the things that affect customer satisfaction and loyalty. Collect 100 questionnaire data that will be used for the conceptual model. The collected data are analyzed according to the structural equation modeling technique using the SmartPLS software version 4. The statistics indicate that Cashless Transactions are more prevalent on daily transactions, but users of Cash Transactions tend to be the most significant on customer satisfaction and loyalty. Despite the widespread adoption of E-Wallets for Cashless Transactions, these tools have not proven effective in assisting MSME owners in fostering customer satisfaction and loyalty. The findings showed that trust variables had a positive influence on customer satisfaction. This research is presumed to assist MSME actors in maintaining as well as enhancing customer satisfaction and loyalty, which is related to continuing to adopt Cash Transactions or improving MSME business using Cashless Transactions services.

Keywords: ECSI, Loyalty, Satisfaction, Cashless

1. INTRODUCTION

Transactions involving cash payments are now considered an activity of the past, while digital payment methods have become an activity with a significant potential in the e-commerce sector [1]. Financial technology may replace banks in payment systems [2]. As digital technology progresses, cashless societies will emerge [3]. Cashless societies undertake all transactions digitally [4]. Savings, convenience, and security are endless as our civilisation moves toward cashlessness [5].

Many consumers prefer cash transactions since they are familiar with the system [6]. According to [7], expanding Cashless Transactions encourages consumers and enterprises to use cashless, paperless digital payments. E-commerce and other payments employ digital payment systems [8]. E-Wallets enable users save and retrieve credit card, bank account, and other digital transaction data [9].

Financial technology can help develop MSME business [2]. Expansion of financial technology things like E-Wallets, some consumers have switched from cash transactions to cashless transactions. However, the development of the current era of cashless society raises several concerns, because realizing a cashless society has its own challenges, as there are indications that many people still use cash for transactions. Utilizing cashless transactions as a transaction medium can make customers satisfied and even customers become loyal.

Consumer satisfaction and loyalty will lead the business to be competitive [10]. Customer loyalty [11] is the feeling customers get when their needs are satisfied. Consumer satisfaction with a product or service indicates how effectively it meets client expectations. This is one of the most telling signs of a customer's intent to buy and their dedication to a certain brand.

During the transition to a cashless society, businesses, especially those in the micro, small, and medium-sized enterprise (MSME) sector, may capitalize on the growing popularity of non-cash payment methods. Still, there are indications that MSME companies aren't interested in adopting

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digital technologies like cashless transaction because they aren't confident in the security of E-Wallet services. Based on a sample of direct observations during activities in Southeast Asia, namely the Jakarta Raya Fair (PRJ) 2022, it was found that 34 out of 100 tenants were still using cash transactions as a payment method. Even though with the development of technology today we should be able to involve more cashless transactions.

Therefore, this study aims to assist MSME actors in maintaining as well as enhancing customer satisfaction and loyalty, which is related to continuing to adopt cash transactions or improving MSME business using cashless transactions services. This is intended so that MSME actors can understand customer behavior regarding the factors that influence customers using or not using Cash Transactions and Cashless Transactions on customer satisfaction as well as loyalty.

This study examined cash and cashless transaction consumer satisfaction and loyalty. Factor analysis was based on (Anderson & Fornell, 2000)'s customer satisfaction model. This study takes the European Customer Satisfaction Index (ECSI) framework model which has been modified according to research needs and follows the relationship between variables that will be needed in research.

2. LITERATURE REVIEW

This study uses the European Customer happiness Index (ECSI) paradigm to examine how cash and cashless transactions affect customer satisfaction and loyalty in MSME enterprises. This research is expected to assist MSME actors maintain and increase customer satisfaction and loyalty by continuing to embrace Cash Transactions or enhancing MSME companies using Cashless Transactions services. ECSI is a model to measure customer satisfaction [12]. The ECSI model measured degree and direction of customer satisfaction factors [13]. ECSI models [14] have seven latent variables. Satisfaction follows quality, value, image, and consumer expectations. Figure 1 below shows, the relationship between the variables that illustrates the adjustment made to the ECSI model as a result of the inclusion of new constructs such as trust and Intention to Use, which aims to assist in understanding why customers stick with Cashless and Cash Transactions. Figure 1 can be found at the bottom of this page. Following this, in the next portion of this chapter, we will define each construct that is a part of the model.

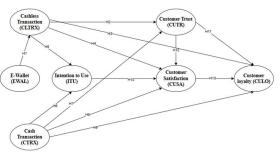


Figure 1: Proposed ECSI Model Development

2.1 E-wallet

According to [8], digital payment systems have lately found extensive usage. This was reported very recently. Customers have shown a large amount of interest in the method as a result of its affordability and the ease with which it may be utilized [7]. Making the transition to a Cashless Society is challenging, as traditional methods of conducting business with other people still see heavy use [15]. Why? Because there are more and more digital payment solutions available to help consumers make the switch from using cash to using electronic transactions [16]. Consumer attitudes, especially those of the Z generation, explaining the rise in E-Wallet service application usage during Covid-19 [17]. Ovo, Dana, ShopeePay, GoPay, and LinkAja are the top 5 E-Wallets utilized for financial transactions in Indonesia right now, according to research published by [18]. These are the top three most popular E-Wallets in Indonesia, according to a recent survey. Offering simple payment choices, such as the digital wallet service application (E-Wallet), can increase customer loyalty, according to [19].

To survive and even grow in the face of cutthroat competition, a business must first and foremost ensure the happiness and continued patronage of its customers. Customers' satisfaction and continued patronage are crucial in today's competitive business environment, especially among MSMEs (micro, small, and medium-sized enterprises). Only if it increases th user happiness and customer loyalty will a company's technology implementation yield a return on investment [16].

2.2 Cashless Transaction

Cashless Society defined by [1] as an individual or community that engages in Cashless transactions, which are defined as purchasing and selling transactions that don't involve cash, but instead use digital technology. The exponential growth of digital technology has led to the emergence and shift toward a Cashless Society [4]. Cash will be phased out of use in this civilization in favor of digital payment [3]. $\frac{31^{\text{st}}}{\text{© 2023 Little Lion Scientific}}$

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These developments provide limitless possibilities in terms of accessibility, safety, and ease of use, and they will allow individuals and communities to evolve technologically as a whole [5].

However, as the Cashless Society era progresses, many concerns and issues will arise about whether or not contemporary society is ready to make the transition [20]. The viability of Cashless Societies will be at the center of these worries and problems [1]. Simply said, there will be challenges to be surmounted before a Cashless Society can become a reality. To overcome these challenges, businesses must figure out how to build and maintain client confidence, which is essential for ensuring that buyers feel safe and pleased with their purchases [21].

According to [6], found that the social and cultural situations of people who are used to using cash are a big reason why many people still prefer to pay with cash. There are still many people who prefer to deal solely in cash while making purchases. Researchers [22] found that a product or service's level of security was a major factor in determining whether or not a customer was satisfied with it. There are major safety issues about using digital transaction methods for financial transactions [23]. Simplified buying and selling made possible by digital wallets is seen as a potential benefit of doing away with cash in daily life via E-Wallets [24]. There are now Cashless societies emerging [1].

2.3 Cash Transaction

It is common practice for consumers to make purchases and pay for goods and services using cash (cash transactions), in which the buyer and seller exchange physical cash at the time of the transaction [1]. Many people still reportedly prefer to deal in cash, particularly for low-value transactions involving MSME [3]. Cash is still widely used because it is quick, easy, and anonymous [6].

However, no records of cash transactions exist [8]. Everyday cash use is also preferable as it provides the clearest picture of monetary outflows and inflows [20]. There are a number of public arguments in favor of using cash (cash) for monetary transactions, including fears over the security of personal information, the inherent dangers of information technology, and the fact that using cash is still somewhat of a cultural norm [1].

2.4 Intention to Use

According to [19] a behavioral predisposition to continue using is an intention to use. A user's motivations, like whether he plans to keep using it and whether or not he hopes to inspire others, provide insight into his or her unique usage. To better understand what motivates customers to use or not utilize Cashless Transactions via E-Wallet application services in the MSME sector, we've included an intention-to-use variable in our analysis. Predicting someone's intent to utilize something is possible by analyzing their attitude toward it. Also, as stated by [23], [25], Customers can have more faith in E-Wallet technology, which in turn leads to the formation of consumer intentions.

2.5 Customer Trust

The degree to which customers believe they can rely on an item or service is the most important factor in deciding whether the market will adopt it [22]. Each business needs a strong customer base to be successful., and this aspect helps businesses do just that [25], Trust can be considered as a vital attribute to possess in many various types of transactions between customers and sellers in order to attain the required degree of customer satisfaction [12]. According to [26], trust may be broken down into four categories, which are psychological states that can lead to trust. Trust has been shown to have a beneficial effect on interest in using electronic money. According to [25], trust variable reveals that many consumers are still more at ease with cash payments.

2.6 Customer Satisfaction

Customer satisfaction [27], [28], is a way to figure out how well an item or service meets customer needs. The implications for customer satisfaction when contrasting monetary and emotional worth customers place on an item or service [29]. It is believed that MSME operating in culinary industry will achieve higher levels of both value and customer happiness if they implement technology into their company operations [2]. As a consequence of the many advantages that the E-Wallet has provided a method of purchasing and selling products and services [17].

2.7 Customer Loyalty

Satisfied customers will be more willing to pay more for the benefits they have got, and they will be more able to tolerate increases in price; this will have an influence on gaining significant margins of customer loyalty [30], [31]. Ensuring that consumers' needs are met on a consistent basis can help cultivate positive relationships with those customers, which in turn will result in increased customer loyalty [12].

However, businesses need to be careful not to fall into the trap of believing that consumers must be satisfied at any cost, as different customers bring different levels of value to a firm [31]. According to what is said in (Corbishley et al, 2020), user loyalty

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is an individual's activity towards allegiance to a specific object that a particular person has a yearning for. It is highly crucial for a service provider to maintain the products they sell to their clients if they have the loyalty of the customers who utilize the item.

3. METHODOLOGY

The identification and formulation of problems relating to the topic of studying the elements that impact users in cash and non-cash transactions on MSME customer happiness and loyalty is the first step in the development of the theoretical framework that will be used in this study. The next stage is to gather data by utilizing a questionnaire that has been sent directly to respondents using Google Forms. This will be done as the following phase. Determination of the research sample will be carried out by using predetermined conditions, namely users who transact using cash and non-cash money. Then proceed with instrument testing which is carried out by testing the dependent and independent variables by conducting a Validity Test and Reliability Test. If all data has been filled in according to predetermined limits, then the next step is to perform data processing by Statistical Test using the partial correlation analysis method to prove the hypothesis that has been determined. Then from the results of the analysis that has been obtained, the researcher will provide conclusions and suggestions from the research results.

Through usage analysis of Cash and Cashless Transactions with the aim of being able to identify the variables that are most strongly related to customer satisfaction and loyalty. The correlations between the variables to be studied are shown in Figure 1, which is based on the ECSI model framework with certain modifications made for the sake of this investigation. The research hypothesis, based on the model, is as follows.

No	Hypothesis
H1	H ₀ : Variable E-Wallet Cannot Influence on
	Cashless Transaction
	H1: Variable E-Wallet Influence on Cashless
	Transaction
H2	H ₀ : Variable Cashless Transaction Cannot
	Influence on Customer Trust
	H ₁ : Variable Cashless Transaction Influence on
	Customer Trust
H3	H ₀ : Variable Cashless Transaction Cannot
	Influence on Customer Loyalty

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	H1: Variable Cashless Transaction Influence on
	Customer Loyalty
H4	H ₀ : Variable Cashless Transaction Cannot
	Influence on Customer Satisfaction
	H ₁ : Variable Cashless Transaction Influence on
	Customer Satisfaction
H5	H ₀ : Variable Cashless Transaction Cannot
	Influence on Intention to Use
	H1: Variable Cashless Transaction Influence on
	Intention to Use
H6	Ho: Variable Cash Transaction Cannot
	Influence on Intention to Use
	H ₁ : Variable Cash Transaction Influence on
	Intention to Use
H7	H ₀ : Variable Cash Transaction Cannot
	Influence on Customer Trust
	H1: Variable Cash Transaction Influence on
	Customer Trust
H8	H ₀ : Variable Cash Transaction Cannot
	Influence on Customer Satisfaction
	H1: Variable Cash Transaction Influence on
	Customer Satisfaction
H9	H ₀ : Variable Cash Transaction Cannot
	Influence on Customer Loyalty
	H ₁ : Variable Cash Transaction Influence on
	Customer Loyalty
H10	H ₀ : Variable Intention to Use Cannot Influence
	on Customer Satisfaction
	H ₁ : Variable Intention to Use Influence on
	Customer Satisfaction
H11	H ₀ : Variable Customer Trust Cannot Influence
	on Customer Satisfaction
	H1: Variable Customer Trust Influence on
	Customer Satisfaction
H12	H ₀ : Variable Customer Trust Cannot Influence
	on Customer Loyalty
	H ₁ : Variable Customer Trust Influence on
	Customer Loyalty
H13	H ₀ : Variable Customer Satisfaction Cannot
	Influence on Customer Loyalty
	H1: Variable Customer Satisfaction Influence
	on Customer Loyalty
	· ·

There are variables including Cashless, Cash, Intention to Use, Trust, Customer Satisfaction, and Customer Loyalty. From these variables there are indicators that will be used to assess each variable. In Table 2, detailed explanations of the indicators that will be applied to each variable's evaluation are provided below.

Variable	Source	Indicator
E-Wallet (EWAL)	[9], [17], [19]	Frequent use of (Frequency of Use) E-Wallets such as Ovo, Gopay, Shopeepay,

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		LinkAja and Dana for					
		transactions					
		Adopt non-cash transactions					
	[1],	to be able to make customers					
Cashless	[3],	feel useful, because of the					
Transaction	[6],	influence of society (Societal					
(CLTRX)	[16],	Influence) and Ease of					
	[20]	Transaction (Easy					
		Transaction) for MSMEs					
	[1]	Adopt cash transactions to					
C 1	[1],	make customers feel useful,					
Cash	[3],	because of the influence of					
Transaction (CTRX)	[6],	society and ease of					
(CIKA)	[16],	Transaction (Easy					
	[20]	Transaction) for MSMEs					
		Customers can increase					
	[22]	productivity (Increase					
Intention to	[23],	Productivity) and increase					
Use (ITU)	[24],	efficiency (Increase					
× ,	[25]	Efficiency) in cash and non-					
		cash transactions (Cashless)					
		Customers can increase					
	[12], [22],	productivity (Increase					
Customer		Productivity) and increase					
Trust		efficiency (Increase					
(CUTR)	[25]	Efficiency) in cash and non-					
		cash transactions (Cashless)					
		Customers satisfied with the					
		transaction will always feel					
	[14],	comfortable using it					
		(Convenience), feel the					
Customer	[14],	quality of the services					
Satisfaction	[12],	provided (Perceived Quality					
(CUSA)	[22],	Services), by considering and					
	[31]	fulfilling expectations (Fulfill					
		Expectations) in Cash or Cashless Transaction					
		Customers will have the					
	[12],	intention to repurchase					
C ([29],	(Purchase Intention), revisit					
Customer	[27],	(Revisit), and will tell					
Loyalty	[30],	positive things to other					
	[31]	people (Influence) when					
		transacting with cash (cash)					
		or non-cash (Cashless)					

Collects 100 MSME consumer data distributed in the DKI Jakarta area through a questionnaire that will be used for the conceptual model and analyzed using SmartPLS software version 4.

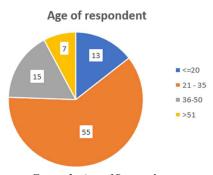
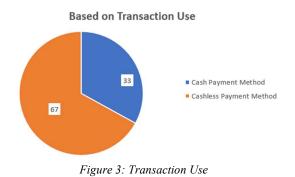


Figure 2: Age of Respondent

Based on the survey that has been collected and figure 2, the data on the results of the respondents includes age divided into four. First, the group with the age of 20 and under had as many as 20 respondents (20%). Second, the group with ages 21-35 years had as many as 55 respondents (55%). Third, the group with ages 35-50 years as many as 13 respondents (13%). Fourth, the group with the age of 51 years and over had as many as 7 respondents (7%).



Based on figure 3, As many as 67 respondents (67%) used cashless transactions more often and the remaining 33 people (33%) were respondents who used cash transactions. Based on the results of these respondents it can be concluded that non-cash payment transactions (cashless) are more dominantly used by the public to make buying and selling transactions.

4. RESULTS AND DISCUSSION

Based on the survey results is 100 data collected. Then using a data validity test for Loading Factor up 0,7 which can be ascertained ideal, meaning valid [14]. Meanwhile, the validity test for Average Variance Extracted (AVE) is "requires a good model if the sum of the AVEs of the individual components exceeds 0,5." When doing a reliability test, the alpha coefficient is used to determine whether or not the data is trustworthy.

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4.1 Validity Test of Outer Loading and Cross Loading Phase 1

Using the PLS-SEM Algorithm, the data in Figure 4 below was processed so that 13 of 31 indicators (CULO2, CULO4, and CULO6 indicators from Variable Customer Loyalty; CUSA2, CUSA4, and CUSA6 indicators from Variable Customer Satisfaction; CUTR2 and CUTR4 from Variable Customer Trust; EWAL3, EWAL4, and EWAL5 from Variable E-Wallet; and ITU2 and ITU4 from Variable Intention to Use) had a value of not exceeded 0.7.

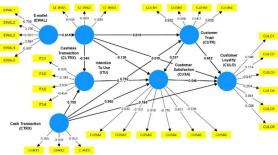


Figure 4: PLS-SEM Algorithm Data Processing – Phase 1

Below Figure 5 is presented the results of the outer loading value of stage 1 on each indicator on its latent variable.

Indikator	CLTRX	CTRX	CULO	CUSA	CUTR	EWAL	ITU
CLTRX1	0.938						
CLTRX2	0.880						
CLTRX3	0.886						
CTRX1		0.955					
CTRX2		0.959					
CTRX3		0.953					
CULO1			0.946				
CULO2			0.114				
CULO3			0.947				
CULO4			0.264				
CUL05			0.941				
CULO6			0.286				
CUSA1				0.932			
CUSA2				-0.152			
CUSA3				0.916			
CUSA4				-0.216			
CUSA5				0.951			
CUSA6				-0.038			
CUTR1					0.962		
COINT					0.702		

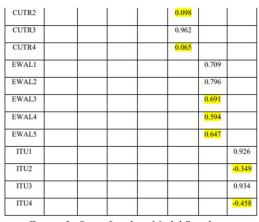


Figure 5: Outer Loading Model Results – Phase 1

Cross-loading components are also important. Cross-loading phase 1 is in Figure 6. The CULO2, CULO4, and CULO6 indicators from the Customer Loyalty variable, CUSA2, CUSA4, and CUSA6 indicators from the Customer Satisfaction variable, CUTR2 and CUTR4 indicators from the Customer Trust variable, and ITU2 and ITU4 indicators from the Intention to Use variable indicate an invalid indicator because the indicator value is less than 0.7 and the highest indicator value is in the Cashless Transaction variable. Besides that, invalid EWAL3, EWAL4, and EWAL5 indicators from the E-wallet variable have indicator values below 0.7. Eliminating these indications improves.

Indikator	CLTRX	CTRX	CULO	CUSA	CUTR	EWAL	ITU
CLTRX1	0.938	-0.25	-0.167	-0.368	-0.188	0.600	-0.405
CLTRX2	0.880	-0.189	-0.072	-0.247	-0.104	0.617	-0.352
CLTRX3	0.886	-0.248	-0.215	-0.301	-0.191	0.449	-0.412
CTRX1	-0.251	0.955	0.686	0.786	0.714	-0.021	0.759
CTRX2	-0.223	0.959	0.755	0.79	0.736	0.051	0.780
CTRX3	-0.255	0.953	0.697	0.814	0.723	0.031	0.808
CUL01	-0.264	0.749	0.946	0.733	0.874	0.018	0.788
CULO2	0.477	0.01	0.114	0.010	0.053	0.382	-0.160
CULO3	-0.184	0.704	0.947	0.661	0.783	0.091	0.748
CULO4	0.447	0.142	0.264	0.140	0.194	0.453	-0.074
CUL05	-0.183	0.684	0.941	0.632	0.783	0.086	0.760
CULO6	0.511	0.090	0.286	0.113	0.228	0.490	-0.073
CUSA1	-0.250	0.787	0.702	0.932	0.742	-0.017	0.709
CUSA2	0.539	-0.108	0.060	-0.152	0.051	0.412	-0.198
CUSA3	-0.248	0.762	0.672	0.916	0.711	0.017	0.696
CUSA4	0.514	-0.193	-0.019	-0.216	-0.009	0.336	-0.290
CUSA5	-0.230	0.780	0.685	0.951	0.699	0.060	0.717
CUSA6	0.520	-0.066	0.133	-0.038	0.069	0.455	-0.137
CUTR1	-0.186	0.732	0.81	0.746	0.962	0.042	0.751

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CUTR2	0.429	0.064	0.105	0.051	0.098	0.351	-0.094
CUTR3	-0.164	0.726	0.845	0.683	0.962	0.007	0.793
CUTR4	0.483	0.024	0.037	-0.041	0.065	0.374	-0.180
EWAL1	0.446	-0.170	-0.021	-0.129	-0.112	0.709	-0.163
EWAL2	0.485	0.112	0.113	0.009	0.093	0.796	0.004
EWAL3	0.418	0.023	0.111	0.014	0.078	0.691	-0.033
EWAL4	0.358	-0.012	0.082	-0.096	0.007	0.594	-0.052
EWAL5	0.418	0.115	0.114	0.043	0.028	0.647	0.016
ITUI	-0.266	0.830	0.817	0.819	0.851	0.042	0.926
ITU2	0.593	-0.144	-0.010	-0.112	0.027	0.325	-0.349
ITU3	-0.244	0.809	0.84	0.746	0.856	0.034	0.934
ITU4	0.569	-0.202	-0.059	-0.181	-0.082	0.275	-0.458

Phase 1

It was concluded that of 31 indicators used there were 13 indicators that did not meet the requirements that the indicator must be above the value of 0,7 and declared invalid.

4.2 Validity Test of Outer Loading and Cross Loading Phase 2

After eliminating the indicators CULO2, CULO4, CULO6, CUSA2, CUSA4, CUSA6, CUTR2, CUTR4, ITU2, ITU4, EWAL3, EWAL4, and EWAL5 in the first stage, the results of the Loading Factor in the second stage are shown in Figure 7 and all values are declared valid.

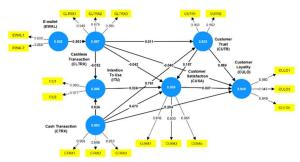


Figure 7: PLS-SEM Algorithm Data Processing -

Phase 2

Below is in Figure 8 presented the results of the outer loading and cross loading value of stage 2 for each indicator on the latent variable from the initial 31 indicators used. After processing using the Outer loading Factor, 18 indicators are obtained which are valid and can be identified.

Indikator	CLTRX	CTRX	CULO	CUSA	CUTR	EWAL	ITU	Ket
CLTRX1	0.94	-0.25	-0.217	-0.286	-0.189	0.543	-0.267	Valid
CLTRX2	0.878	-0.189	-0.127	-0.163	-0.108	0.563	-0.171	Valid
CLTRX3	0.885	-0.248	-0.261	-0.24	-0.193	0.378	-0.265	Valid
CTRX1	-0.25	0.955	0.691	0.776	0.716	-0.042	0.77	Valid
CTRX2	-0.224	0.959	0.755	0.785	0.734	-0.011	0.817	Valid
CTRX3	-0.256	0.953	0.708	0.798	0.723	-0.025	0.814	Valid
CULO1	-0.264	0.749	0.95	0.744	0.875	-0.028	0.839	Valid
CULO3	-0.184	0.704	0.948	0.665	0.781	0.037	0.79	Valid
CULO5	-0.183	0.684	0.949	0.641	0.783	0.024	0.804	Valid
CUSA1	-0.25	0.787	0.695	0.948	0.741	-0.038	0.761	Valid
CUSA3	-0.249	0.762	0.671	<mark>0.93</mark>	0.708	-0.013	0.758	Valid
CUSA5	-0.231	0.78	0.68	0.954	0.697	0.044	0.763	Valid
CUTR1	-0.186	0.732	0.809	0.761	0.963	-0.01	0.813	Valid
CUTR3	-0.164	0.726	0.844	0.698	0.962	-0.008	0.863	Valid
EWAL1	0.446	-0.17	-0.058	-0.085	-0.113	0.83	-0.115	Valid
EWAL2	0.485	0.112	0.07	0.074	0.089	0.859	0.094	Valid
ITU1	-0.266	0.83	0.825	0.824	0.85	-0.003	0.98	Valid
ITU3	-0.244	0.809	0.85	0.75	0.854	-0.011	0.977	Valid

Figure 8: Outer Loading and Cross Loading Model Results – Phase 2

The reliability test in PLS calculations uses two approaches, namely Composite Reliability and Cronbach's alpha where there are values that indicate inconsistency or are not Reliable, namely Variable EWAL (E-Wallet). The conclusive findings from the validity as well as the reliability test are presented in table 3 below. According to table 4, out of the 31 initial indicators that were employed, following processing using the Outer loading Factor, a total of 18 indicators were obtained which were valid. These indications were able to be identified.

4.3 AVE and Cronbach's Alpha Test Results

Assessing Discriminant validity other than the Cross-loading value is by looking at the Average Variance Extract (AVE) as well as if the average value of each construct is more than 0,50, then a reliable model is required. Besides that, if the AVE value is not exceeded 0,50, the indicator will be declared invalid. To perform a reliability test using Composite Reliability, the value must be greater than 0,7 will be called reliable, and the Cronbach's alpha value must be above 0,7 to be declared reliable. Figures 9–11 show AVE, Composite Reliability, and Cronbach's Alpha scores.

Figure 9 shows AVE values that must be above 0.5 to be valid.

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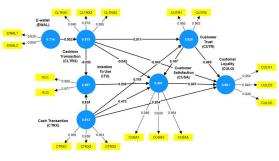


Figure 9: AVE Results

Figure 10 shows Composite Reliability values that must be above 0.7 to be reliable.

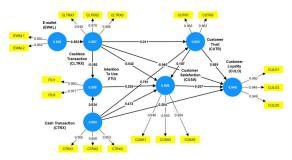


Figure 10: Composite Reliability Results

Figure 10 shows Cronbach's Alpha values that must be above 0.7 to be reliable.

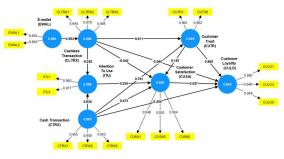


Figure 11: Cronbach's Alpha Results

Table 4 is summarizing the validity and reliability test values.

Table 4	4. AVE an	id Cronbac	h's Alpha	Test Results

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Varia- ble	AVE	Comp- site Reli- ability	Cron- bach's alpha	Remark
CLTRX	0.813	0.929	0.885	Reliable
CTRX	0.913	0.969	0.953	Reliable
CULO	0.901	0.965	0.945	Reliable
CUSA	0.891	0.961	0.939	Reliable
CUTR	0.926	0.961	0.920	Reliable
EWAL	0.714	0.602	0.599	Not Reliable
ITU	0.957	0.978	0.956	Reliable

Examining the path coefficient, which represents the path coefficient as well as the statistical significance T-Value, allows to the hypothesis.

4.4 Discussions

According to the results, it can be covered that 5 out of 13 hypotheses are accepted and 8 out of 13 hypotheses are rejected. This study tested the hypothesis using the path coefficient, which indicates the parameter coefficient and statistical significance T-Value. "The value of path coefficient or inner model shows a significant level, and the hypothesis can be accepted if P-Value it means this value is not exceed 0.05".

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values
CLTRX -> CULO	-0.040	-0.037	0.046	0.884	0.377
CLTRX -> CUSA	-0.042	-0.043	0.054	0.783	0.434
CLTRX -> CUTR	0.011	0.007	0.081	0.138	0.890
CLTRX -> ITU	-0.052	-0.053	0.053	0.978	0.328
CTRX → CULO	0.204	0.209	0.123	1.658	0.097
CTRX → CUSA	0.473	0.431	0.190	2.493	0.013
CTRX → CUTR	0.761	0.761	0.056	13.577	0.000
CTRX → ITU	0.824	0.821	0.059	13.974	0.000
CUSA -> CULO	0.037	0.065	0.129	0.288	0.775
CUTR -> CULO	0.669	0.637	0.154	4.328	0.000
CUTR -> CUSA	0.187	0.194	0.139	1.344	0.179
EWAL -> CLTRX	0.552	0.557	0.085	6.459	0.000
ITU -> CUSA	0.236	0.271	0.200	1.176	0.239

Figure 12: Path Coefficients Results - SmartPLS

Based on Figure 12 above, the results of research conducted will be explained and it can be concluded that 5 of 13 hypotheses are accepted and 8 of 13 hypotheses are rejected.

1. H1: E-Wallet is significant in Cashless Transactions

The T-Statistic is 6.459, it means this value is exceed 1.96, as well as P-Value is 0.000, it means this value is not exceeded 0.05. The findings also reveal that the amount of use of non-cash transaction ser-vices (Cashless) in MSMEs increased in correlation with the fre-quency with which customers used E-Wallet services.

2. H2: Cashless Transactions is not significant in Customer Trust

The T-Statistic is 0.138, it means this value is not exceeded 1.96, as well as P-Value is 0.890, it means this value is exceed 0.05. The findings also reveal that customers' trust in MSMEs decreased in relation to the frequency with which they used cashless transaction services.

3. H3: Cashless Transactions is not significant in Customer Loyalty.

The T-Statistic is 0.884, it means this value is not exceeded 1.96, as well as P-Value is 0.377, it means this value is exceed 0.05. The findings also reveal that customers' increased use of cashless payment

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methods (Cashless) does not necessarily translate into increased loyalty for MSMEs.

4. H4: Cashless Transactions is not significant in Variable Customer Satisfaction.

The T-Statistic is 0.783, it means this value is not exceeded 1.96, as well as P-Value is 0.434, it means this value is exceed 0.05. The findings also reveal that the level of customer satisfaction in MSMEs goes up more customers use services that don't involve cash.

5. H5: Cashless Transactions is not significant in Variable Intention to Use

The T-Statistic is 0.978, it means this value is not exceeded 1.96, as well as P-Value is 0.328, it means this value is exceed 0.05. The findings also reveal that customers who use non-cash transaction services (Cashless) cannot be said that customers are too intensive to use these services (Intention to Use) in MSMEs.

6. H6: Cash Transactions is significant in Intention to Use

The T-Statistic is 13.974, it means this value is exceed 1,96, as well as P-Value is 0.000, it means this value is not exceeded 0.05. The findings also reveal that the more often customers use cash transaction services (cash), the higher the intensity of customers in using cash transaction services (intention to use) in MSMEs.

7. H7: Cash Transactions is significant in Customer Trust

The T-Statistic is 13.577, it means this value is exceed 1,96, as well as P-Value is 0.000, it means this value is not exceeded 0.05. The findings also reveal that the more frequently customers use cash transaction services (Cash), the higher the level of customer trust in using cash transaction services (Customer Trust) in MSMEs.

8. H8: Cash Transactions is significant in Customer Satisfaction

The T-Statistic is 2.493, it means this value is exceed 1,96, as well as the P-Value 0,013, it means this value is not exceeded 0.05. The findings also reveal that the more often customers use cash transaction services (cash), the higher the customer feels comfortable and satis-fied in using cash transaction services (cash transactions) in MSMEs.

9. H9: Cash Transactions is not significant in Customer loyalty

The T-Statistic is 1.658, it means this value is not exceeded 1.96, as well as P-Value is 0.097, it means this value is exceed 0.05. The findings also reveal that the more often customers use cash transaction services (Cash), the less loyal they are to customers (Customer Loy-alty) in MSMEs.

10. H10: Intention to Use is not significant in Customer Satisfaction

The T-Statistic is 1.176, it means this value is not exceeded 1.96, as well as P-Value is 0.239, it means this value is exceed 0.05. The findings also reveal that the more intensively customers use cash and non-cash transaction services, the less satisfied the customer is (Cus-tomer Satisfaction) in MSMEs.

11. H11: Customer Trust affects is significant in Customer Loyalty

The T-Statistic is 4.328, it means this value is exceed 1.96, as well as the P-Value 0,000, it means this value is not exceeded 0.05. The findings also reveal that customers who believe in the level of comfort and security in using cash and non-cash transaction services will make customers loyal (Customer Loyalty) in MSMEs.

12. H12: Customer Trust is not significant in Customer Satisfaction

The T-Statistic is 1.344, it means this value is not exceeded 1.96, as well as P-Value is 0.179, it means this value is exceed 0.05. The findings also reveal that the higher the level of customer trust in using cash and non-cash transaction services, the less satisfied the customer will be (Customer Satisfaction) in MSMEs.

13. H13: Customer satisfaction is not significant in customer loyalty

The T-Statistic is 0.286, it means this value is not exceeded 1.96, as well as P-Value is 0.775, it means this value is exceed 0.05. The findings also reveal that the higher the level of customer satisfaction (Customer Satisfaction) in using cash (Cash) and non-cash (Cashless) transaction services, it does not make customers loyal (Customer Loyalty) in MSMEs.

5. CONCLUSION AND SUGGESTION

The following parts will present a comprehensive conclusion based on the results of the experiments that were carried out, and several recommendations have been made to improve and supplement the results for the further research.

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5.1 Conclusion

This study was carried out with the purpose of examining the variables that impact customer satisfaction and loyalty with regard to the use of cash transactions and cashless transactions. This research examines seven variables and thirteen hypotheses. The findings indicate that only the trust variable has a positive influence on customer loyalty for cash transactions and cashless transactions. The study also found that there is no correlation between trust and customer satisfaction.

5.2 Suggestion

Based on the study of the theories and the findings, there are several suggestions given to MSME players, namely as follows.

- 1. Cashless Transactions using E-Wallets have not been able to help MSME actors to continue to be used among MSME players but cannot be relied on because Cashless Transactions cannot maintain customer satisfaction, customer loyalty, and lack of intention as well as customer interest in using these services and the lack of customer trust in the use of non-cash transactions.
- 2. Cash Transactions can help MSME players to maintain customer satisfaction, customer loyalty and customer intentions and interests to use services as well as the level of customer trust in the use of cash transactions and this is still very high among the public.

It is highly recommended that, for the purpose of future research, a number of different things be taken into consideration.

- 1. Including additional internal variables from the European customers satisfaction index (ECSI) in addition to the Cashless variable, Cash, E-wallet and Trust as well as removing the original model for the European customers satisfaction index (Cashless, Cash, E-wallet, and Trust).
- 2. Something to keep in mind Cashless variables that don't just concentrate on e-wallet alone, but may increase the limit with non-transactions other cash such as QRIS with bank, transfer, and others. Cashless variables that don't only focus on e-wallet only.
- 3. Extending the limits of the region for the gathering of sample data in a manner distinct from the author's study, which includes information from over 100 respondents.
- 4. Utilizing and implementing alternative approaches to gauge the loyalty and satisfaction of the customer base.

REFERENCES:

- N. Fabris, "Cashless Society The Future of Money or a Utopia?," *Journal of Central Banking Theory and Practice*, vol. 8, no. 1, pp. 53–66, Jan. 2019, doi: 10.2478/jcbtp-2019-0003.
- [2] I. R. Candraningrat, N. Abundanti, N. W. Mujiati, R. Erlangga, and I. M. G. Jhuniantara, "The role of financial technology on development of MSMEs," *Accounting*, vol. 7, no. 1, pp. 225–230, Jan. 2021, doi: 10.5267/j.ac.2020.9.014.
- [3] N. Arvidsson, "Building a Cashless Society: The Swedish Route to the Future of Cash Payments," I.Switzerland: Springer International Publishing, 2019, p. 96. Accessed: Feb. 17, 2023. [Online]. Available: https://doi.org/10.1007/978-3-030-10689-8
- [4] A. Abbas, "Literature Review of a Cashless Society in Indonesia: Evaluating the Progress," *International Journal of Innovation*, *Management and Technology*, pp. 193–196, 2017, doi: 10.18178/ijimt.2017.8.3.727.
- [5] V. Jain and P. Jain, "A Journey Towards a Cashless Society," *Banking Sector in Oman: Strategic Issues, Challenges and Future Scenarios*, vol. Vol. 17 (5), pp. 61–73, Jan. 2017, [Online]. Available: https://www.researchgate.net/publication/315 823434
- [6] K. Busse et al., "Cash, Cards or Cryptocurrencies? A Study of Payment Culture in Four Countries," in Proceedings -5th IEEE European Symposium on Security and Privacy Workshops, Euro S and PW 2020, Institute of Electrical and Electronics Engineers Inc., Sep. 2020, pp. 200–209. doi: 10.1109/EuroSPW51379.2020.00035.
- [7] A. B. Nashirah, S. Rosbi, and K. Uzaki, "E-Wallet Transactional Framework for Digital Economy: A Perspective from Islamic Financial Engineering," *INTERNATIONAL JOURNAL OF MANAGEMENT SCIENCE AND BUSINESS ADMINISTRATION*, vol. 6, no. 3, pp. 50–57, 2020, doi: 10.18775/ijmsba.1849-5664-5419.2014.63.1005.
- [8] R. Gokilavani, M. D. Venkatesh, D. M. Durgarani, and D. R. Mahalakshmi, "Can India Move Towards Digital Soverign Currency? A Study On Perception Of Consumers Towards Digital Payment," *International Journal of Pure and Applied Mathematics*, 2018, [Online]. Available: http://www.acadpubl.eu/hub/

<u>31st July 2023. Vol.101. No 14</u> © 2023 Little Lion Scientific

ISSN: 1992-8645

www.jatit.org

- [9] G. Ambika, "E-Wallets: For Future Investments Leading to Digital Economy of India," *International Journal of Research in Management*, vol. 07, 2017, [Online]. Available: http://indusedu.org
- [10] M. Alshurideh, A. Al-Hadrami, E. K. Alquqa, H. M. Alzoubi, S. Hamadneh, and B. Al Kurdi, "The effect of lean and agile operations strategy on improving order-winners: Empirical evidence from the UAE food service industry," Uncertain Supply Chain Management, vol. 11, no. 1, pp. 87–94, Dec. 2023, doi: 10.5267/j.uscm.2022.11.007.
- [11] D. C. Ferreira, R. Soares, M. I. Pedro, and R. C. Marques, "Customer satisfaction in the presence of imperfect knowledge of data," *International Transactions in Operational Research*, vol. 30, no. 3, pp. 1505–1536, May 2023, doi: 10.1111/itor.13093.
- [12] T. T. B. Bui, "Application of The Extended European Customer Satisfaction Index to Evaluate Tourist Loyalty," *African Journal of Hospitality, Tourism and Leisure*, vol. 11, no.
 4, pp. 1334–1349, 2022, doi: 10.46222/ajhtl.19770720.294.
- [13] A. Golovkova, J. Eklof, A. Malova, and O. Podkorytova, "Customer Satisfaction Index and Financial Performance: A European Cross Country Study," *International Journal of Bank Marketing*, vol. 37(2), pp. 479–491, 2019, Accessed: Feb. 17, 2023. [Online]. Available: DOI:10.1108/IJBM-10-2017-0210
- [14] G. Biesok and J. Wyród-Wróbel, "European Customer Satisfaction Index Model: Comparison of Evidences from Poland and Lithuania," on European Integration 2018, p. 161, 2018, Accessed: Apr. 06, 2023. [Online]. Available: https://is.muni.cz/publication/1418488/ICEI-2018 Proceedings.pdf#page=162
- [15] W. Yaokumah, P. Kumah, and E. S. A. Okai, "Demographic influences on E-payment services," *International Journal of e-Business Research*, vol. 13, no. 1, pp. 44–65, Jan. 2017, doi: 10.4018/IJEBR.2017010103.
- [16] K. Vinitha and S. Vasantha, "Usage of E-payment and customer satisfaction," *Indian J Public Health Res Dev*, vol. 9, no. 3, pp. 130–133, 2018, doi: 10.5958/0976-5506.2018.00196.1.
- [17] M. Maulita, P. Astuti, A. Fabiola, and B. Luturnas, "Factors That Influence Generation Z in Using E-Wallet During COVID-19 Pandemic," In International Conference on Applied Science and Technology on Social

Science 2021 (iCAST-SS 2021), pp. 96–100, 2022, Accessed: Feb. 17, 2023. [Online]. Available: DOI: 10.2991/assehr.k.220301.017

- [18] A. Ciptarianto, "E-Wallet Application Penetration for Financial Inclusion in Indonesia," *International Journal of Current Science Research and Review*, vol. 05, no. 02, Feb. 2022, doi: 10.47191/ijcsrr/V5-i2-03.
- [19] K. Subaramaniam, R. Kolandaisamy, A. Bin Jalil, and I. Kolandaisamy, "The impact of E-Wallets for current generation," *Journal of Advanced Research in Dynamical and Control Systems*, vol. 12, no. 1 Special Issue, pp. 751– 759, 2020, doi: 10.5373/JARDCS/V12SP1/20201126.
- [20] S. Achord, J. Chan, I. Collier, S. Nardani, and S. Rochemont, A Cashless Society Benefits, Risks and Issues. 2017. Accessed: Feb. 16, 2023. [Online]. Available: https://www.researchgate.net/publication/338 792439
- [21] W. Engert, B. Fung, and S. Hendry, "Is a Cashless Society Problematic?," vol. Bank of Canada, p. No. 2018-12, 2018, Accessed: Feb. 17, 2023. [Online]. Available: https://www.researchgate.net/publication/328 314825 Is a Cashless Society Problematic
- [22] D. A. Muhtasim, S. Y. Tan, M. A. Hassan, M. I. Pavel, and S. Susmit, "Customer Satisfaction with Digital Wallet Services: An Analysis of Security Factors," *International Journal of Advanced Computer Science and Applications*, vol. 13, no. 1, pp. 195–206, 2022, doi: 10.14569/IJACSA.2022.0130124.
- [23] S. Singh and R. K. Srivastava, "Predicting the intention to use mobile banking in India," *International Journal of Bank Marketing*, vol. 36, no. 2, pp. 357–378, 2018, doi: 10.1108/IJBM-12-2016-0186.
- [24] B. Purwandari, S. A. Suriazdin, A. N. Hidayanto, S. Setiawan, K. Phusavat, and M. Maulida, "Factors Affecting Switching Intention from Cash on Delivery to E-Payment Services in C2C E-Commerce Transactions: COVID-19, Transaction, and Technology Perspectives," *Emerging Science Journal*, vol. 6, no. Special Issue, pp. 136–150, 2022, doi: 10.28991/esj-2022-SPER-010.
- [25] N. Singh and N. Sinha, "How perceived trust mediates merchant's intention to use a mobile wallet technology," *Journal of Retailing and Consumer Services*, vol. 52, Jan. 2020, doi: 10.1016/j.jretconser.2019.101894.
- [26] Md. A. A. Khan and H. Hashim, "Tourist Satisfaction Index for Tourism Destination,

ISSN: 1992-8645

www.jatit.org



E-ISSN: 1817-3195

Integrating Social Media Engagement into the European Customer Satisfaction Index: A Conceptual Paper," *International Journal of Academic Research in Business and Social Sciences*, vol. 10, no. 9, Sep. 2020, doi: 10.6007/ijarbss/v10-i9/7519.

- [27] B. A. Fida, U. Ahmed, Y. Al-Balushi, and D. Singh, "Impact of Service Quality on Customer Loyalty and Customer Satisfaction in Islamic Banks in the Sultanate of Oman," *Sage Open*, vol. 10, no. 2, Apr. 2020, doi: 10.1177/2158244020919517.
- [28] Y. F. Sun *et al.*, "Quality Big Data Analysis and Management Based on Product Satisfaction Index," *In IOP Conference Series: Materials Science and Engineering*, vol. Vol. 1043, No. 3, no. p. 032004, 2021, Accessed: Feb. 17, 2023. [Online]. Available: doi:10.1088/1757-899X/1043/3/032004
- [29] K. M. Corbishley, R. B. Mason, and C. Meintjes, "Perceived benefits of loyalty programs and relationship quality," *International Journal of Customer Relationship Marketing and Management*, vol. 11, no. 1, pp. 1–18, Jan. 2020, doi: 10.4018/IJCRMM.2020010101.
- [30] L. C. Hoe and S. Mansori, "The Effects of Product Quality on Customer Satisfaction and Loyalty: Evidence from Malaysian Engineering Industry," *International Journal* of Industrial Marketing, vol. 3, no. 1, p. 20, Nov. 2018, doi: 10.5296/ijim.v3i1.13959.
- [31] Z. Lei, H. Duan, L. Zhang, D. Ergu, and F. Liu, "The Main Influencing Factors of Customer Satisfaction and Loyalty in City Express Delivery," *Front Psychol*, vol. 13, 2022, Accessed: Feb. 17, 2023. [Online]. Available: DOI: 10.3389/fpsyg.2022.1044032