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# THE EFFECT OF E-CRM AND TECHNOLOGICAL INNOVATION TOWARD CUSTOMER LOYALTY: A MEDIATION EFFECT OF CUSTOMER EXPERIENCE ON TOKOPEDIA CUSTOMERS

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#### ABSTRACT

This research aims to discover the effect of e-CRM and Technological Innovation toward Customer Loyalty mediated by consumer experience variables. The approach in this research uses a quantitative approach while the type of research is using survey research. The use of this survey research is to obtain an overview of e-CRM, technological innovation toward the product consumers mediated by the consumer experience variable. The sample in this research is 100 Tokopedia customers. The technique of sampling utilized in this research is purposive-sampling technique. In addition, the data analysis technique utilized in this research is SEM (Structural Equation Modeling) analysis in the PLS (Pertial Least Square) program. The result of this research manifests the significant and positive effect of e-CRM toward customers' experience and customers' loyalty. Technological innovation significantly and positively affects Customer Experience. Customer Experience significantly and positively affects Customer Loyalty. E-CRM Variable significantly and positively affects Customer Loyalty through Customer Experience. The Technological Innovation significantly and positively affects Customer Loyalty through Customer Experience.

Keywords: Customer Loyalty, E-CRM, Customer Experience, E-Commerce, Influence

#### 1. INTRODUCTION

The increase number of internet user in Indonesia shows that Indonesia had 202.6 million internet users by January 2021. It rose up 16 percent between 2020 and 2021 [1]. Furthermore from year to year, there have been significant developments in the e-commerce industry in Indonesia. As numereous as 90 percent between 16 to 64 years old in Indonesia have shifted shopping behaviour, especially since the COVID-19 pandemic. Information from GlobalWebIndex depicts that Indonesia is the nation with the most noteworthy ecommerce selection rate in 2019 [2].

The rising of e-commerce in Indonesia, brought one of the most well-known Indonesian ecommerce, Tokopedia. Tokopedia officially launched to public on August 17, 2009. On its journey more than a decade, in May 2019, Tokopedia listed on a gross merchandise value (GMV) of Rp18.5 trillion. Presently, Tokopedia successfully ranked as the first among the other sites that around 135 million visitors clicked in the first quarter of 2021 [3].

The rank of Tokopedia also indicates an increasingly competitive business situation. The high demand for the need to be purchased online requires the e-commerce industry to choose the right strategy in keeping its consumers from switching to other e-commerce.

Companies must analyze what factors affect customer loyalty, so that they can choose the right strategy to maintain it. Customer loyalty is a matter of consideration for companies in determining which innovations to develop [4].

At present, the improvement of data innovation requires company to advance the performance of their business in competing with comparative companies in order to win customers confidence [5]. A company is considered to be successful or not if the company is in accomplishing its target influenced by management ability to utilize every opportunity [6].

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Loyalty or consumer loyalty is usually

caused by the consumers' experience toward the products or services of the company [7]. The consumer experience also connects the company and its trademarks with the consumer's lifestyle and puts individual actions and buying opportunities [8]. Experience presents some values that are relational, behavioral, cognitive, emotional, and sensory. The consumer experience is the ultimate experience through direct and indirect relationships in ways by the company [9].

In the e-commerce industry, several factors can cause consumers to persist, including developing new ways or innovations in technology, companies need to involve technology in them [10]. The trend of electronic commerce in the future will still adopt various types of the latest technology. With this technology, e-commerce businesses can grow and compete competitively.

The current form of Technological Innovation adopts AI and big data (Artificial Intelligence) as its purpose is to make interconnected between human and AI more natural [11]. Through AI, e-commerce studies and determines what consumers need. All of this can only be obtained from big data. An example of how retailers learn about their consumers is through recommended items that appear through advertisements. After browsing the goods, consumers will receive advertisements for recommendations for similar items. Some retailers run loyalty programs, for example giving prizes in the form of points that can be exchanged for outlets, to find out the habits of their consumers. Also, retail collaborates with financial technology companies to study consumer behavior.

One of the essential components of a website in e-commerce is Customer Relationship Management (CRM), a thorough approach that treat customers from creating to maintaining [12]. This is a kind of strategy combined with technology in order to manage customers behaviour effectively. The term of E-CRM alludes to e-commerce instruments or electronic channels usage in CRM [13]. Sometimes there is no difference between the terms CRM and E-CRM because of the development of technology using an electronic base.

Advanced marketing, E-CRM is a substancial concept. Anton (1999) in Suhari & Handiono (2020) states that CRM carried out: (1) reaching the information of particular company that gathers features (domain fault repair, location customization, elective channels, local search engines, membership, mailing records, site visits, maps, familiarization for new users, chat, message boards), (2) e-commerce features (Online buying, presales reviewing, customization flexibilities, purchase conditions, product review, and links), and (3) supporting features for after-sales (FAQs, problem solving, complaining competency, and spare parts) [14].

One of ways to do this is by implementing E-CRM (Electronic Customer Relationship Management). By using this management system, the company will be able to compete well in achieving maximum results in satisfaction, so it is necessary to implement the right vision, mission, and strategy for the company [15]. Therefore, this paper considers Tokopedia as the leading e-commerce in Indonesia. It has a novelty of how ecommerce in Indonesia implementing E-CRM and technological innovation to achieve customers loyalty during Covid-19.

# 2. THEORITICAL STUDY 2.1 Customer Loyalty

Customer loyalty has a fundamental part in a company [16]. Retaining consumers implies amending financial prosperity and company viability. This is the important reason to a company captivate and retain consumers [17]. Efforts to get loyal customers cannot be done all at once but exceeding in many ways. Loyal consumers are individuals who purchase products and services who are not easily sway over to competitors. Lovalty customers can been indicated from their behaviour when purchasing at slightest three times or more at a spesific time [18].

Furthermore, Kurshakova (2010) states a person or company can be said to be a loyal consumer if it has been loyal to the company for a long time, not only purchasing products but also giving a positive image of the company. Customer loyalty is a result from successful interaction between e-commerce in digital company. This can be accomplished by implementing CRM strategy that is tailored to the demands of customers such as keeping track of and knowing their request [19].

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Table 1: Customer Loyalty Dimensions				
No.	Dimensions	Indicator		
1	Repurchasing	Has remained loyal to the company for a long time		
	Kepurchasing	Buy new products offered by the company		
2	Tolerance	Insensitive to competitors' actions Insensitive to price changes Tolerating mistakes		
3	Positive Recommendation	Willing to provide information Making a positive image, word of mouth Willing to share ideas about product and service improvements		

# Table 1: Customer Loyalty Dimensions

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#### **2.2 Customer Experience**

An experience is a personal event that occurs in response to several stimuli [20]. Experience involves all in every life event [21]. In other words, a marketer must set the right environment for consumers and what consumers want. Experience is generally not self-generated but persuading or psychologically, the experience is something that happens accidentally [22]. Customer Experience Management (CEM) is the process of overseeing customers' experience with a product or company strategically [8]. Meanwhile, customer experience is the quality of experience captured by customers as a aftereffect from direct or indirect with any touchpoint of a company [23].

From the above definition, customer experience refers to the real experience of consumers with brands, products, or services to increase sales and brand awareness [24]. In this case, more than just providing information for customers to involve the benefits of the service and product itself, it moreover raise emotion and feelings that have effect on marketing, particularly sales products or services [25].

Table 2: Customer Experience Dimensions

No Dimensions	Indicator
---------------	-----------

		Choice freedom	
1	Product	Cross product	
1	Experience	comparison	
		Comparison necessity	
		Inertia	
2	Outcome	Result Focus	
2	Focus	Experience	
		Common grounding	
		Flexibility	
	Truth moments	Pro-activity	
3		Risk perception	
		Interpersonal skills	
		Service recovery	
		Expertise	
		Process ease	
4.	Peace of	Relationship/transaction	
4.	mind	Convenience retention	
		Familiarity	
		Independent advice	

#### 2.3 Electronic Customer Relationship Management (e-CRM)

The term of e-CRM is identified as a digital platform which utilizes internet and electronics like a website browser, email, social media. It is oriented to keep and preserve customer relationships, as the impact it will draw new customers and expand the business [26]. Customer Relationship Management is the key of management approach to make, develop, and create commonly advantageous connections is a strategic mutually beneficial relationships with consumers in the long term, especially with potential customers, to maximize customer value and corporate profitability [8]. The main objective of the highest marketing is achieving the level of the satisfaction of customers. Lately, a lot of attention has been devoted to "total" satisfaction, the implication is that achieving partial satisfaction is not enough to keep consumers loyal and come back [27]. When consumers are fulfilled with the service during the process and are also satisfied with the goods or services they purchased, they are likely to return and make other transactions [28]. Moreover, they will recommend about the company and its products. Besides, they are less likely to turn to other competitors.

Maintaining customer satisfaction from time to time will foster good relationships with consumers. This can increase the company's profits in the long run.

E-CRM has a definition of the use of digital communication technology to maximize products

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selling to consumers and encourage online service usage [29]. According to Oliver who is quoted by Barnes (2003) customer satisfaction is the response of consumers to their needs [30]. This means that the assessment of a particular form of goods and services provides a level of comfort associated with meeting needs that exceed consumer expectations. Consumers are people whose decisions affect the company's wealth. They may be a complex group consisting of various layers but must be known and served to ensure the welfare of the company [31].

According to Harrigan & Milles (2014), many indicators influence e-CRM implementation success, namely consumer loyalty, consumer attitudes, company value, sales rating, e-CRM implementation control, customer satisfaction, criticism, and suggestions from consumers, etc. In modern marketing, e-CRM becomes one of the important concepts. Anton proposed a feature of e-CRM to load [32].

No	Dimensions	Indicator		
		Domain Fault Repair		
		Site Customization		
		Alternative Channels		
	Contacting	Local Search Engine		
	Contacting the Company	Membership		
	and	Mailing List		
1	Information	Site tour		
	Gathering	Site map		
	Features	Introduction for First-		
	i cutures	Time Users		
		Chat		
		Electronic Bulletin		
		board		
	E-Commerce Features	On-line Purchasing		
		Reviewing presales		
		information on-line		
2		Customization		
2		possibilities		
		Purchase conditions		
		Preview product		
		Links		
	Post Sales	FAQs		
3	1 000 54105	Problem-solving		
3	Support Features	Complaining ability		
		Spare parts		

#### Table 3: e-CRM Dimensions

# 2.4 Technological Innovation

Technology itself is defined as a method or means of achieving practical goals based on science

[33]. Ahmed and Shepherd (2019) states that an innovation is not only retistricted for goods or goods produced, but also attitudes, behaviour, or movements toward the changing process in all aspects of social life [34]. E-commerce has 5 basic concepts of innovation in technology, namely:

- 1) Automation is business process automation as a substitute for manual processes (enterprise resource planning concept)
- 2) Streamlining / Integration is an integrated process to achieve efficient and effective results (just in time concept)
- Publishing is the ease of communication and promotion for traded products and services (electronic cataloging concept)
- 4) Interaction is the exchange of information between business people by minimizing human error (electronic data interchange concept)
- 5) The transaction is an agreement between two business actors to make transactions involving other institutions as a payment function (electronic payment concept)

No	Dimensions	Indicator
		Enterprise resource
		planning
1	Automation	Adoption Technology
1	1 Automation	Big data
		Artificial intelligence
		Technology
	Stangen lining/	Just in time
2	2 Streamlining/ Integration	Easy of use
		Perceive of usefulness
3	Dublishing	Electronic cataloging
3	Publishing	Electronic advertising
		Electronic data
4	Interaction	interchange
		Massage technology
5	Transaction	Electronic payment

Table 4: Technological Innovation Dimensions

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Figure 1: Hypothesis

- H1: E-CRM significantly affects Customer Experience
- H1: There is a significant positive effect on ECRM toward Customer Experience
- H2: Technological Innovation significantly affect Customer Experience
- H2: There is a significant positive influence on Technological Innovation toward Customer Experience
- H3: There is a significant positive effect on e-CRM toward Customer Loyalty
- H4: There is a significant positive influence on Technological Innovation toward Customer Loyalty
- H5: There is a significant positive effect on Customer Experience toward Customer Loyalty

#### 3. RESEARCH METHOD

The research design in this article centers on estimation and data that can be measured. This study's purpose is explaining the relation between several variables that scores [35]. This paper used a positivism paradigm with a quantitative approach and designed with explanatory research. Explanatory research in this paper outline to explain how factors can influence each other [36].

The research uses a survey method because this research develops generalizations. The use of this survey research to obtain an overview of E-CRM, Technological Innovation in consumer mediated by the consumer expereince variable. The research used the nonprobability sampling because deciding the amount of sample is not necessary [37]. Through distributing a questionnare survey as a primary data, the survey determinined the sample by using certain considerations that are suitable as respondents, living in either in big cities or small cities in Indonesia, and respondents should made purchase transaction on Tokopedia in the past. In the end, the sample were 100 respondents that are eligible. In addition, the data analysis technique utilized in this research is SEM (Structural Equation Modeling) analysis in the PLS (Partial Least Square) program. This research aims to figure it out direct and indirect variables.

#### 4. RESULT

#### 4.1 Evaluating the Measurement Model or Outer Model

#### 4.1.1 Convergent validity

The measurement model convergent validity utilizing reflexive indicators is perceived from correlation between item/indicator scores utilizing score constructing. The individual indicators are considered to be reliable if those indicators have correlation value on outer loading which is more than 0.60. According to the result for outer loading, the loading of all indicators are above 0.50 and considered to be significant.

Table 5: Convergent Validity

Dimensions	Customers' Experience (Z)	Customer Loyalty (Y)	E- CRM (X1)	Technological Innovation (X2)
CEX1	0.786			
CEX2	0.741			
CEX3	0.730			
CEX4	0.823			
CSL1		0.839		
CSL2		0.786		
CSL3		0.854		
ECRM1			0.736	
ECRM2			0.894	
ECRM3			0.870	
TINV1				0.860
TINV2				0.773
TINV3				0.816
TINV4				0.843
TINV5				0.755

The validity testing for reflective indicators utilizes the item and construct scores correlation. From the table above, it can be identified that all dimensions converge the convergent validity since it has more than 0.50 loading value. Reflective indicators are considered to be appropriate to measure perceptions, thus, this research utilizes reflective indicators. ISSN: 1992-8645

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# 4.1.2 Discriminant validity and composite reliability

The term of discriminant validity is measured utilizing the Average Variance Extracted (AVE) square root value. The value that is recommended is more than 0.5 while testing the composite reliability of the indicator block is measuring the construct. A construct is considered to be reliable if the composite reliability value reaches more than 0.60. The result of data analysis manifests that research data converge discriminatory validity and composite reliability criterias.

Variable	Cronbach's Alpha	rho_ A	Composite Reliability	Average Variant Extract
Customer Experience (Z)	0.774	0.786	0.854	0.594
Customer Loyalty (Y)	0.770	0.788	0.866	0.683
E-CRM (X1)	0.781	0.792	0.874	0.699
Technologi cal Innovation (X2)	0.869	0.870	0.905	0.657

# 4.2 Evaluating the Structural Model or Inner Model

Inner model can be assessed by evaluating the relationship between latent constructs as hypothesized in this research, which is how the relationship of the first model examines the effect of e-CRM (X1) and technological innovation (X2) toward customer experience (Z) and the second model of e-CRM (X1) affect, technological innovation (X2) and customer experience (Z) for customer loyalty (Y). The r-square result manifests that both models produce more than 50% effects, which are 75.1% and 61.3%

Table 7: R-Square

Model	R Square	R Square Adjusted
Customer Experience (Z)	0.751	0.746
Customer Loyalty (Y)	0.613	0.601

### 4.3 Hypothesis Testing

The result of the analysis is utilized to perceive the effect between the considered variables by seeing the significance level between the considered variables and the relationship between the considered variables. If the research Sig is less than 0.05 (Sig < 0.05), it can be considered that there is a significant effect between the considered variables. However, if the Sig value of this research is more than 0.05 (Sig > 0.05), it can be considered that the effect between variables is not significant. Furthermore, if the value of t-arithmetic is more than the t-table (t-arithmetic > t-table), it can be considered that the effect between variables is significant. Contrarily, if the value of t-count is less than t-table (t-count < t-table), the effect between variables is considered to be not significant.



Figure 2: Summary of Research Hypotheses

	Origi nal Samp le (O)	Standard Deviatio n (STDEV )	T- statistic ( O/ST DEV )	P- value
Customer Experienc e (Z) ► Customer Loyalty (Y)	0.124	0.161	3.149	0.000
E-CRM (X1) $\blacktriangleright$ Customer Experienc e (Z)	0.411	0.102	4.040	0.000
E-CRM (X1) ► Customer Loyalty (Y)	0.809	0.161	5.021	0.000

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Technolog ical Innovatio n (X2) ► Customer Experienc e (Z)	0.488	0.107	4.556	0.000
Technolog ical Innovatio n (X2) ► Customer Loyalty (Y)	0.007	0.166	3.045	0.000
Customer Experienc e (Z) ► Customer Loyalty (Y)	0.124	0.161	3.149	0.000

Table 8 aims to test the direct effect which the result indicates e-CRM (X1) has a positive and significantly affects customer experience (z) and customer loyalty (Y). Furthermore, the technological innovation variable (X2) has a positive and significantly affects customer experience (z). Then, customer experience (z) has a positive and significantly affects customer loyalty (Y).

Table 9: Indirect Effect						
	Original Sample (O)	Standard Deviation (STDEV)	T-statistic ( O/STDE V )	P- value		
E-CRM (X1) Customer► Experience (Z) Customer Loyalty (Y)	0.110	0.070	3.140	0.000		
Technological Innovation (X2)► Customer Experience (Z)► Customer Loyalty (Y)	0.112	0.079	3.148	0.000		

Table 9: Indirect Effect

Indirect effect aims to determine the effect of the mediating variable toward the relationship between independent and dependent variables. Table 3 shows that e-CRM (X1) positively and significantly affects customer loyalty (Y) through customer experience as mediation variable (Z). Furthermore, technological innovation (X2) has a positive significantly affects customer loyalty (Y) through customer experience as the mediation variable (Z).

#### 5. DISCUSSION

### 5.1 Path Coefficient Effect of E-CRM Variables (X1) toward Customer Experience (Z)

The statistical calculation result of the effect of the E-CRM variable (X1) toward the customer experience variable (Z) shows the smaller p-value compared with the value of  $\alpha$  (0.000 <0.05) and the sensitivity of the pathway (beta) value has a positive number, the result is considered to be significant and positive. The result indicates that E-CRM affects customer experience. A good experience can be obtained if one gets the right information and the right service. Likewise, the experience in shopping in e-commerce [38]. Rudy (2021) stating that digital technologies as company assets can be used at utmost. The research toward e-commerce retail in Indonesia on fashion and beauty products reveal that between digital technology and customer experience, also between digital technology and customer engagement had a significant relation [39]. Several studies have shown that providing good E-CRM will encourage a positive Customer Experience and increase opportunities for consumers to make purchases on the products offered.

# 5.2 Path coefficient Effect of E-CRM Variables (X1) toward Customer Loyalty (Y)

The result of the statistical calculation of the effect of the E-CRM variable (X1) toward the customer loyalty variable (Y) indicates that the smaller p-value when compared with the value of  $\alpha$  (0.000 <0.05). In addition, the value of the sensitivity of the pathway (beta) has a positive number in which it indicates that the result is significant and positive. The result written above indicates that the e-CRM variable affects customer loyalty. The research conducted by Dhingra and Dhingra (2013) in India in term of the banking sector toward e-CRM determinants that the e-CRM technology implementation within banking industry ensures transaction security and enhances "one-on-one relationship" between banks and customers [40].

Through the approach of the structural equation modeling, Sivaraks et al (2011) conduct research on 684 bank customers in Thailand establishing a statistically significant and positive relationship between customer-based-service features and customer-bank-relationship quality outcomes [41]. Alhaiou et al (2012) conduct research on the online shoppers from UK toward the relationship between e-CRM features and e-loyalty at different stages of the transaction cycle [42]. From the research conducted, it is shown that the e-CRM usage in building consumer relationships has an effect toward satisfaction and loyalty of online customers Oumar

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introduced when markets wait for the introduction of future technology. The consumers have learned to anticipate technology improvements and reduction in prices for those tkinds of products. Furedi [47] states that it becomes a dominant cultural theme to avoid risk, in which the technology existing is connected with risk. Consequently, it is very important to incorporate consumers' expectations in term of consumers' satisfaction and loyalty.

#### 5.5 Path Coefficient Influence Customer Experience (Z) Variable toward Customer Loyalty (Y)

The result of statistical calculation on the effect of the customer experience variable (Z) toward the customer loyalty variable (Y) shows the smaller pvalue compared with the value of  $\alpha$  (0.000 <0.05) and the value of the sensitivity of the pathway (beta) has a positive number which indicates the significant and positive results. The results indicate that the customer experience variable affects customer loyalty. Liébana-Cabanillasshows that an individuals' positive experiences with given items in the past will have a decisive impact toward their behaviour on the item mentioned[38].

Experience is the strongest generator of loyalty. Online-shopping good experiences create positive attitudes, increases self-efficacy of customers, and influences future intentions. However, the onlineshopping bad experiences have exactly the opposite effects [48]. Furthermore, satisfied customers toward previous experiences are considered to increase their self-efficacy. It is known that experience is important in forming the perceptions of customers regarding the expectations of them from online retailers [49]. Zhou confirms the positive relationship between experience and satisfaction; specifically, higher experience leads to increased satisfaction with online shopping and increased number of purchases to complete [50].

# 5.6 Path Coefficient Influence E-CRM Variable (X1) toward Customer Loyalty Variable (Y) through Customer Experience Variable (Z)

The result of statistical calculation on the effect of E-CRM variable (X1) toward customer loyalty variable (Y) through customer experience variable (Z) shows the smaller p-value compared with the value of  $\alpha$  (0.000 <0.05). In addition, the value of the sensitivity of the pathway (beta) has a positive number in which indicates the significant and positive results. The results indicate that the customer experience variable can mediate the effect of the E-CRM variable (X1) toward the customer loyalty variable (Y). According to the research

et al (2017) stating that the perceived satisfaction is critical for costumers' loyalty and it must be considered in all electronic-service relationships. The research toward Kenyan bank customers reveals a varying degree of loyalty at every transaction cycle

#### 5.3 Path Coefficient Influence of Technological Innovation Variable (X2) toward Customer Experience (Z)

phase attributed to the costumers' satisfaction

utilizing the system of e-CRM [43].

The result of statistical calculation on the effect of the technological innovation variable (X2) toward customer experience variable (Z) shows the smaller p-value when compared to the value of  $\alpha$  (0.00 0 <0.05). In addition, the value of the sensitivity of the pathway (beta) has a positive number in which indicates significant and positive results. The result indicates that the Technological Innovation affects Customer Experience.

Technological Innovation is a significant determinant affecting directly or indirectly e-CRM. The user's attitude in using e-CRM depends on functionality that is perceived, not the easiness of the e-CRM to use. The reason behind it is because as the design of the user interfaces for application systems becomes more user-friendly, in which it becomes much easier to learn [44]. Thus, the functionality that is perceived has been well recognized as the basic requirement for system design and its impact toward user's attitude in using the system of application increasingly becomes less important. On the other hand, for the volunteer of the e-CRM in this study (at the very beginning), since users usually like to explore several basic features first, functionality that is perceived plays an important role during the experimental stages [45].

# 5.4 Path Coefficient Influence of Technological Innovation Variable (X2) toward Customer Loyalty (Y)

The result of statistical calculation on the effect of the technological innovation variable (X2) toward the customer loyalty variable (Y) shows the greater p-value compared with the value of  $\alpha$  (0.740 > 0.05). The result indicates that the technological innovation variable does not affect customer loyalty. The performance of product can have effect toward the satisfaction and loyalty of the customers to a high degree [46].

Nevertheless, if a future technology improvement is expected by consumers, it will impact the future technology existing and assessment. It is particularly critical when with the products of intermediate technology levels are E-ISSN: 1817-3195



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significant and positive effect toward customers' loyalty; technological innovation has significant and positive effect toward customers' loyalty; e-CRM has significant and positive effect toward customer's loyalty through customers' experience: and influence technological innovation has significant and positive effect toward customers' loyalty variable through customers' experience of Tokopedia customers. This research contributed theoretically on marketing as well as for business practically. This research has limitations that generally focuses on male customers in big cities in Indonesia. The study suggests that a larger sample in both big cities and small cities can be covered up to see variable's effect.

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conducted by Kezia, it is known that Customer Relationship Management (CRM) is a consumer behavior modification and learning all the time from the interaction, the perpetrator of the consumers and build up strength among the companies' customers [51]. Therefore, in general, Customer Relationship Management (CRM) will lead to a good relationship between drivers and all customers, thus, it can create loyalty to the product or service.

#### 5.7 Path Coefficient Influence Technological Innovation Variable (X2) toward Customer Loyalty Variable (Y) through Customer Experience Variable (Z)

The result of statistical calculation on the effect of the technological innovation variable (X2) toward customer loyalty variable (Y) through customer experience variable (Z) shows the smaller p-value compared with the value of  $\alpha$  (0.021 <0.05). In addition, the value of the sensitivity of the pathway (beta) has a positive number in which it indicates the significant and positive results. The results indicate that the variable of customer experience can mediate the effect of the technological innovation variable (X2) toward customer loyalty variable (Y). Customers' perceptions have important roles to enhance customers' loyalty and purchase decisions.

This study issues empirical results that prior customer experience affects the relationship between technological Innovation and loyalty as well as the relationship of satisfaction to repurchase. Additionally, the results show that technological innovation affects low and high experienced customers. In consequence, researches about ecommerce should differentiate between customers with low and high experience in online shopping.

The two groups have different perceptions according to customers' experience, in which it affects costumers' behavioral patterns. Precisely, online shopping medium performances affect the high-experienced customers' satisfaction. [52] Alternatively, the easiness of associated online shopping and the confidence given to customers that are able complete online purchases without any help affect the satisfaction of customers in low experience. It also shows that trust is essential for all customers [49].

# 6. CONCLUSION

This study results show the e-CRM has significant and positive effect toward customers' experience; e-CRM has significant and positive effect toward customers' loyalty; technological innovation has significant and positive effect toward customers' experience; customers' experience has



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