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E-Commerce And Marketing Innovation Towards Consumer Buying Interest Case Study On Pt Ramayana Lestari Sentosa Tbk

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Abstract

The study aims to determine the effect of e-commerce (virtual) and marketing innovation on consumer purchasing interest at PT Ramayana Lestari Sentosa Tbk. The implementation of e-commerce is carried out by PT. Ramayana Tbk in various business lines, by creating its own buying and selling website in collaboration with fintech companies such as Go-Pay and Dana. The e-commerce variable (electronic commerce) has a calculated r greater than the r table (0.183), so it can be said that all question items are able to measure what is to be measured (valid) and the e-commerce variable is 0.822, its value is greater than 0.70, so it can be said that the instrument used to measure the variable is reliable. The marketing innovation variable has a calculated r greater than the r table (0.183) and the marketing innovation variable is 0.775, its value is greater than 0.70, so it can be said that the instrument used to measure the variable is reliable. The consumer purchasing interest variable is 0.838, the value is greater than 0.70, so it can be said that the instrument used to measure this variable is reliable. Based on these results, the Sig value for the regression is $0.000 < 0.05$, thus proving that e-commerce and marketing innovation simultaneously have a significant influence on consumer purchasing interest.

Keywords: E-commerce, Marketing Innovation, Purchase Interest

1. Introduction

Science and technology have led to rapid growth in the digital world. New technologies are created almost every month, requiring people to keep up with technological advancements. This increasingly advanced technology can be enjoyed by all groups and all ages. The rapid development of information technology, online commerce, or e-commerce, has created a new phenomenon in the Indonesian economy, attracting both institutions/organizations and consumers. Its positive impacts include creating digital economic equality, providing convenience and high efficiency, fast data flow, and 24/7 accessibility. In business, internet technology is expected to break the long chain of distribution processes, create a new paradigm in business through digital marketing, and bring consumers closer to producers while maintaining competitive market prices and healthy competition.

However, the number of internet users in Indonesia continues to grow rapidly. Data obtained from Wearesocial in 2019 revealed that 132 million Indonesians use the internet, meaning more than fifty percent of the Indonesian population has internet access throughout the country. Of that number, 62 percent access the internet using smartphones. Currently, many Indonesian companies have started e-commerce in Indonesia, especially in the last seven years. For example, several major e-commerce companies have collaborated with marketplace platforms such as OLX, Bukalapak, Lazada, and Tokopedia to effectively reach their target market. These large businesses have implemented this strategy in the face of the digital era.

Business disruption drives businesses to keep up with technological developments, and disruption has occurred in any industry when the moment is relevant. Currently, e-commerce is disrupting retail businesses, financial technology is disrupting banking, and online transportation is disrupting public transportation, among other sectors. Going forward, this trend is expected to shift to other industries, such as insurance and automotive, and the creation of new content will continue. To address these dynamics, businesses need to continuously monitor and explore technological developments. According to Colliers International Indonesia, in October 2020/2021, the following industries are actively interacting with artificial intelligence (AI) technology: Automotive 38.8%; Food and beverage 25.2%; Data centers 12.9%; Oil and gas 6.8%; Manufacturing 4.7%; Chemicals 4.6%; Plastics 2.1%; Building materials 0.4%; Logistics/Warehousing 0.4%; Engineering 0.4%; Packaging 0.4%; and Cosmetics 0.4%;

E-Commerce And Marketing Innovation Towards Consumer Buying Interest Case Study On Pt Ramayana Lestari Sentosa Tbk

and Others 2.8%. For PT. Ramayana, innovation and technology must be an essential part of everyday life, and they continue to explore and develop technological innovations that can provide the latest shopping experiences.

Due to the large influence of the development of the world of technology, e-commerce and online stores on retail trade in the country and the importance of marketing innovation in efforts to attract consumer buying interest, the author is interested in researching the influence of the development of e-commerce and marketing innovation on consumer buying interest at PT Ramayana Lestari Sentosa Tbk. Klender branch, Jakarta.

The term e-commerce is often equated with the term e-business or e-marketing because some people consider the term trade or commerce as a buying and selling transaction carried out between business partners. According to Turban, King, Lee, Ting & Turban, (2015) the general classification of e-commerce is categorized based on the type of transaction and the parties conducting the transaction. The main types of e-commerce transactions are as follows: Business-to-Business (B2B); Business-to-Consumer (B2C); Business-to-Business-to-Customer (B2B2C); Business-to-Employees (B2E); Consumer-to-Business (C2B); Consumer-to-Consumer (C2C); Collaborative Commerce; E-Government; and Intrabusiness Electronic Commerce.

The Internet has proven to accelerate business progress, enabling it to serve existing and emerging markets more effectively and responsively. Various businesses, both established and start-up, at the national and international levels, have recognized the importance of adapting to the rapid growth of technological disruption, from the traditional era—preparing for the advent of e-commerce—to fully utilizing electronic business. The evolution of a business from traditional to e-commerce becomes an e-business organization. This is further illustrated in Figure 1.

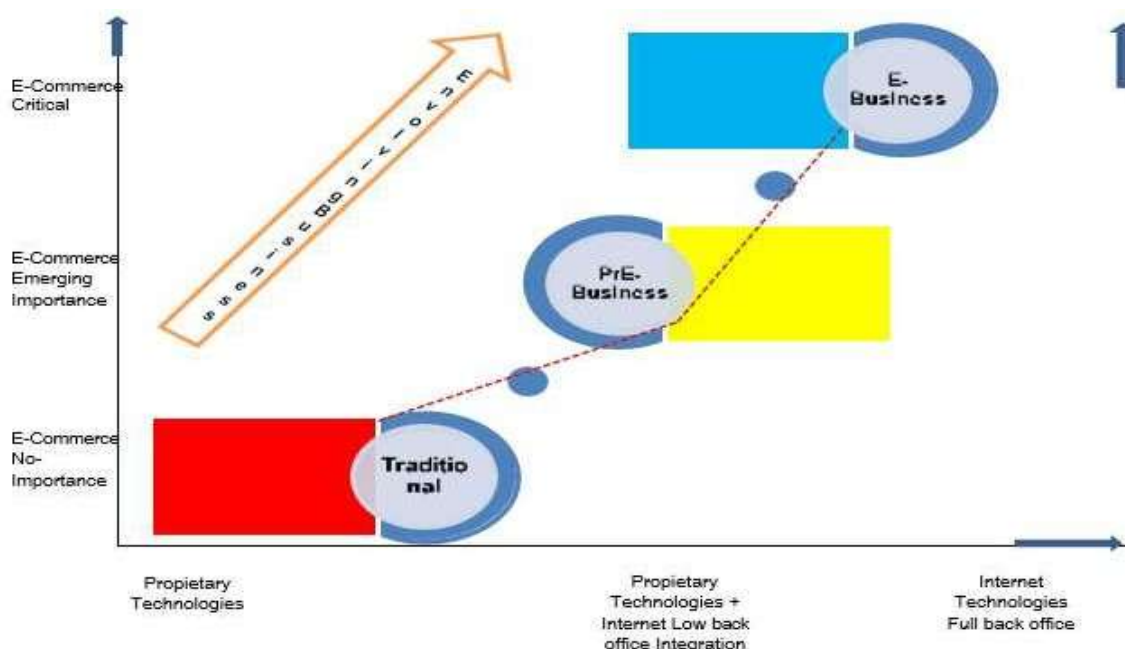


Figure 1. Business Development from Traditional to E-commerce to E-Business Organization

2. Research methods

2.1. Research Variables

The variables used in this study consist of two independent variables, namely e-commerce X1 and marketing innovation X2. While the dependent variable is consumer purchasing interest, Y. Data collection was carried out using a questionnaire distributed to 155 respondents who became the sample. The variables were measured on a Likert scale with the following operationalization:

1. E-commerce variables), measured in 3 dimensions and 20 indicators.
2. Marketing innovation variables are measured in 6 dimensions and 20 indicators.
3. Consumer purchasing interest variables are measured in 3 dimensions and 20 indicators.

2.2. Data Analysis Techniques

To test the validity and reliability of the questionnaire instrument used in data collection. Validity testing is carried out by correlating the scores of each question item with the total score of the variable. Classical Assumption Test in Regression Analysis Consists of: Normality Test Aims to determine whether the residual value is normally distributed or not. A good regression model, if the residual value is normally distributed. Testing uses the Kolmogorov-Smirnov Test, which is the basis for decision making. Autocorrelation Test aims to test whether in the linear regression model there is a correlation between the residual error in period t with the previous period or $t-1$. If a correlation occurs, then it is said that there is an autocorrelation problem. A good regression model is a regression that is free from autocorrelation.

Testing using the Durbin-Watson Test with the following decision-making basis: Heteroscedasticity Test aims to test whether in the regression model there is inequality of variance from the residuals of one observation to another. A good regression model is homoscedasticity or does not occur heteroscedasticity. Testing is carried out using the Glejser Test with the following decision-making basis: Multicollinearity Test aims to test whether the regression model finds a correlation between independent variables. A good regression model should not have a correlation between independent variables. Testing uses the Variance Inflation Factor (VIF) with the following decision-making basis; Multiple Regression Test Consists of: Partial Influence Test (t-Test). Aims to test the significance of the influence of each independent variable (X) on the dependent variable (Y). Testing uses the t-Test as the basis for decision-making.

3. Results and Discussion

The description of respondents' answers to questions related to e-commerce variables, marketing innovation, and consumer purchasing interest can be summarized as follows:

1. *E-commerce* Ramayana's implementation tends to influence consumer purchasing interest. The indications are as follows:
 - On the statement about e-commerce that "sales promotion through the Ramayana website is very popular", the majority of respondents (57.4%) responded in agreement.
 - Regarding the statement about e-commerce that "collaboration between Ramayana and fintech companies such as Go-Pay and Dana helps consumers make transactions easily", the majority of respondents (61.7%) responded in agreement.
 - Regarding the statement about e-commerce that "provides price discounts by paying for products via Go-Pay and Dana", the majority of respondents (64.3%) responded in agreement.
 - Regarding the statement about consumer purchasing interest that "providing promo codes on online shopping sites for a limited time triggers consumers to immediately purchase products", the majority of respondents (58.3%) responded in agreement.
2. Ramayana's marketing innovations tend to be successful in increasing consumer purchasing interest. This is indicated by the following:
 - Regarding the statement about marketing innovation that "sales promotions carried out by Ramayana through television, radio and print media are often encountered", the majority of respondents (58.3%) responded in agreement.
 - Regarding the statement about marketing innovation that "sales promotions in the form of banners help consumers to know what product promotions are being implemented by Ramayana", the majority of respondents (48.7%) responded in agreement.
 - Regarding the statement about marketing innovation that "sales promotion through brochures and posters is effective in informing consumers about products", the majority of respondents (59.1%) responded in agreement.
 - Regarding the statement about marketing innovation that "sales promotion through the Ramayana website is very popular", the majority of respondents (60.0%) responded in agreement.
 - Regarding the statement about marketing innovation that "price discounts are very diverse and different for each product", the majority of respondents (56.5%) responded in agreement.
 - Regarding the statement about marketing innovation that "price discounts are different on each holiday, such as Chinese New Year, Eid, Christmas and New Year", the majority of respondents

(60.9%) responded in agreement.

- Regarding the statement about marketing innovation that "price discounts are increasingly given a few days before the holiday until the holiday arrives", the majority of respondents (66.1%) responded in agreement.
- Regarding the statement about marketing innovation that "the buy 1 get 1 discount system is often implemented by Ramayana", the majority of respondents (54.8%) responded in agreement.
- Regarding the statement about marketing innovation that "provides price discounts by paying for products via Go-Pay and Dana", the majority of respondents (64.3%) responded in agreement.
- In general, all statements submitted to respondents regarding e-commerce, marketing innovation, and consumer purchasing interest were responded to positively by the majority of respondents. Therefore, it can be said that e-commerce and marketing innovation generally have a positive impact on consumer purchasing interest.

Results of the Validity Test of E-Commerce Variables

The results of the validity test for the e-commerce variable (electronic commerce) are shown in table 1, as follows:

Table 1. Results of the E-commerce Variable Validity Test

No	R Count	R Table	Information
Q1	0.360	0.183	Valid
Q2	0.589	0.183	Valid
Q3	0.531	0.183	Valid
Q4	0.546	0.183	Valid
Q5	0.556	0.183	Valid
Q6	0.370	0.183	Valid
Q7	0.487	0.183	Valid
Q8	0.473	0.183	Valid
Q9	0.544	0.183	Valid
Q10	0.462	0.183	Valid
Q11	0.372	0.183	Valid
Q12	0.578	0.183	Valid
Q13	0.368	0.183	Valid
Q14	0.377	0.183	Valid
Q15	0.482	0.183	Valid
Q16	0.423	0.183	Valid
Q17	0.480	0.183	Valid

Source: Processed data, 2025

In Table 1, all questions about the e-commerce variable (electronic commerce) have a calculated r that is greater than the table r (0.183), so it can be said that all questions are able to measure what they want to measure (valid).

Reliability Test Results of E-Commerce Variables

The results of the Reliability Test for the e-commerce variable (electronic commerce) are shown in Table 2, as follows:

Table 2. Reliability Test Results of E-commerce Variables

Cronbach's Alpha	N of Items
,822	20

Source: Processed data, 2025

In Table 2, the Cronbach's Alpha value for the e-commerce variable is 0.822. This value is greater than 0.70, indicating that the instrument used to measure this variable is reliable.

The results of the validity test for the marketing innovation variable are shown in Table 3, as follows:

Table 3. Results of the Validity Test of Marketing Innovation Variables

No	R Count	R Table	Information
Q1	0.481	0.183	Valid
Q2	0.497	0.183	Valid
Q3	0.436	0.183	Valid
Q4	0.521	0.183	Valid
Q5	0.343	0.183	Valid
Q6	0.512	0.183	Valid
Q7	0.512	0.183	Valid
Q8	0.456	0.183	Valid
Q9	0.504	0.183	Valid
Q10	0.347	0.183	Valid
Q11	0.247	0.183	Valid
Q12	0.359	0.183	Valid
Q13	0.327	0.183	Valid
Q14	0.408	0.183	Valid
Q15	0.448	0.183	Valid
Q16	0.462	0.183	Valid
Q17	0.528	0.183	Valid
Q18	0.382	0.183	Valid
Q19	0.495	0.183	Valid
Q20	0.439	0.183	Valid

Source: Processed data, 2025

In table 3, all questions about the marketing innovation variable have a calculated r that is greater than the table r (0.183), so it can be said that all questions are able to measure what they want to measure (valid).

The results of the reliability test for the marketing innovation variable are shown in Table 4, as follows:

Table 4. Results of the Reliability Test of Marketing Innovation Variables

Cronbach's Alpha	N of Items
,775	20

Source: Processed data, 2025

In Table 4, the Cronbach's Alpha value for the marketing innovation variable is 0.775. This value is greater than 0.70, indicating that the instrument used to measure this variable is reliable.

The results of the validity test for the consumer purchasing interest variable are shown in table 5, as follows:

Table 5. Results of the Validity Test of Consumer Purchase Interest Variables

No	R Count	R Table	Information
Q1	0.490	0.183	Valid
Q2	0.510	0.183	Valid
Q3	0.424	0.183	Valid
Q4	0.496	0.183	Valid
Q5	0.593	0.183	Valid
Q6	0.485	0.183	Valid
Q7	0.480	0.183	Valid
Q8	0.464	0.183	Valid
Q9	0.490	0.183	Valid
Q10	0.488	0.183	Valid
Q11	0.462	0.183	Valid
Q12	0.433	0.183	Valid
Q13	0.451	0.183	Valid

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Q14	0.582	0.183	Valid
Q15	0.596	0.183	Valid
Q16	0.539	0.183	Valid
Q17	0.581	0.183	Valid
Q18	0.489	0.183	Valid
Q19	0.424	0.183	Valid
Q20	0.421	0.183	Valid

Source: Processed data, 2025

In table 5, all questions about the marketing innovation variable have a calculated r that is greater than the table r (0.183), so it can be said that all questions are able to measure what they want to measure (valid).

The results of the reliability test for the consumer purchasing interest variable are shown in Table 6, as follows:

Table 6. Results of the Reliability Test of Consumer Purchase Interest Variables

Cronbach's Alpha	N of Items
,838	20

Source: Processed data, 2025

In Table 6, the Cronbach's Alpha value for the consumer purchasing intention variable is 0.838. This value is greater than 0.70, indicating that the instrument used to measure this variable is reliable.

The Normality Assumption Test for the application of multiple regression uses the Kolmogorov-Smirnov Test. The results are shown in Table 7, as follows:

Table 7. Normality Test Results

		Unstandardized
N		115
Normal	Mean	,0000000
Parametersa,b	Std.	5,19742596
Most Extreme	Absolute	,069
Differences	Positive	,049
	Negative	-,069
Test Statistics		,069
Asymp. Sig. (2-tailed)		,200c,d

Source: Processed data, 2025

Based on the results in Table 7, the significance value is $0.2 > 0.05$, indicating that the residual values are normally distributed. Therefore, it can be said that the regression model meets the assumptions of a normal distribution.

The Autocorrelation Assumption Test for multiple regression applications uses the Durbin-Watson Test. The results are shown in Table 8, as follows:

Table 8. Autocorrelation Test Results

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate	Durbin-Watson
1	,641a	,410	,400	5.24363	1,861

Source: Processed data, 2025

Based on these results, the Durbin Watson (d) value is 1.861, while with $\alpha = 0.05$, $dL = 1.6606$ and $dU = 1.7313$. Thus, it can be concluded that $dU < d < 4-dU$ or $1.7313 < 1.861 < 2.2687$, which means that the regression model does not contain autocorrelation. In other words, the regression model has met the autocorrelation assumption.

The Heteroscedasticity Assumption Test for the application of multiple regression uses the Glejser Test. The results are shown in Table 9, as follows:

Table 9. Heteroscedasticity Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	-3,956	4,595		-,861	,391
	Electronic Commerce	,087	,059	,172	1,480	,142
	Marketing Innovation	,012	,066	,021	,181	,857

Source: Processed data, 2025

Based on these results, the significance value for the e-commerce variable was 0.142 and for the marketing innovation variable was 0.857. Both are greater than $\alpha = 0.05$, indicating that the regression model exhibits homoscedasticity, indicating that the residual variance from one observation to another remains constant. Therefore, the regression model meets the heteroscedasticity assumption.

Multicollinearity assumption test for multiple regression using Variance Inflation Factor (VIF). The results are shown in Table 10, as follows:

Table 10. Multicollinearity Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	9,299	8,045		1,156	,250		
	Electronic Commerce	,220	,103	,193	2,132	,035	,641	1,561
	Marketing Innovation	,641	,115	,506	5,579	,000	,641	1,561

Source: Processed data, 2025

Based on these results, the VIF is $1.561 < 10$ and the tolerance value is $0.641 > 0.1$, thus proving that there is no correlation between the independent variables in the regression model. Thus, it can be said that the regression model has met the multicollinearity assumption.

Partial Influence Test (t-Test)

The partial test of the influence of e-commerce and marketing innovation on consumer purchasing interest was conducted using a t-test. The results are shown in Table 11, as follows:

Table 11. Partial Effect Test Results

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	9,299	8,045		1,156	,250
	Electronic Commerce	,220	,103	,193	2,132	,035
	Innovation Marketing	,641	,115	,506	5,579	,000

Source: Processed data, 2025

Simultaneous Influence Test (F Test)

The simultaneous test of the influence of e-commerce and marketing innovation on consumer purchasing interest was conducted using the F-test. The results are shown in Table 12, as follows:

Table 12. Simultaneous Effect Test Results

		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2143,413	2	1071,706	38,977	,000b
	Residual	3079,509	112	27,496		
	Total	5222,922	114			

Source: Processed data, 2025

Based on these results, the Sig value for the regression is $0.000 < 0.05$, thus proving that e-commerce and marketing innovation simultaneously have a significant influence on consumer purchasing interest.

Coefficient of Determination

The coefficient of determination is used to determine the extent of the influence of the independent variable on the dependent variable. The coefficient of determination ranges from 0 to 1. A value close to 1 indicates that the independent variable provides almost all the information needed to predict variations in the dependent variable. The results of the coefficient of determination calculation are shown in Table 13. In this case, the adjusted coefficient of determination (adjusted R-square) is used because there is more than one independent variable (multiple regression).

Table 13. Results of the Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,641a	,410	,400	5,244

Source: Processed data, 2025

Based on these results, the adjusted coefficient of determination (adjusted R-square) was 0.400, concluding that e-commerce and marketing innovation only had a 40% influence on consumer purchasing interest. The remaining 60% is thought to be influenced by other factors not examined in this study.

4. Conclusion

Related to this research, it can be concluded as follows: PT Ramayana Lestari Sentosa Tbk has implemented e-commerce in its business line, in collaboration with fintech companies such as Go-Pay and Dana. Sales through the company's website and providing price discounts on platform product purchases have been responded to positively by the majority of consumers. The results of the study prove that e-commerce has a significant influence on consumer purchasing interest. Marketing innovations carried out include: (i) sales promotions through online and offline media, radio, and print, (ii) making banners, brochures and posters, (iii) providing price discounts on every national holiday, (iv) developing a payment system that makes it easier for consumers through Go-Pay and Dana. The results of the study prove that these marketing innovations have a significant influence on consumer purchasing interest. positively.

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