

Analysis of Ease, Security, Trust, and Satisfaction with Transaction Decisions Using E-Commerce (Empirical Study on Student of the Faculty of Economics and Business 2019-2022)

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Abstract— The purpose of this discussion is to find out the analysis of ease, security, trust, and satisfaction with transaction decisions using e-commerce (Empirical Study on Students of the Faculty of Economics and Business Muhammadiyah University of Surakarta in 2019-2022). E-commerce is an online buying and selling site that can be accessed easily anytime and anywhere using a smartphone or computer. Data analysis was performed by multiple linear regressions analysis. This study used the SPSS version 26 program, the samples taken were students of the economics and business faculties of Muhammadiyah University of Surakarta in 2019-2022. Results research shows that ease and satisfaction do not affect the decision to transact using e-commerce, while security and trust have an effect on the decision to transact using e-commerce.

Keywords— Ease, Security, Trust, and Satisfaction, and E-Commerce.

I. INTRODUCTION

In the current era of globalization, technological development are increasing advanced rapidly, especially in terms of the internet, the internet is the medium of all internet, all people's needs become more easy and fast. For example, online business users now there are many and have grown. Utility the internet facilitates transactions between merchants and traders buyers who are in different areas, besides that you can saving time and transportation cost as well market the product widely to target area.

E-commerce is an easy buying and selling site accessed anytime and anywhere, in e-commerce it offers a wide range of products ranging from fashion, electronics, kitchen equipment, baby needs, and even daily needs. The payment methods offered also vary, such as credit or debit cards, transfers through a bank, payment through Alfamart or Indomaret, cash on delivery, and even pay later.

There are several factors that make society like to shop and transaction in e-commerce, besides being able to saving on transportation costs, there are also big discounts offered by sellers. But not only not only convenience that is obtained but also losses for example good that are not as expected and not the same with the pictures shown, the goods are experienced damage resulting from colliding with other items when will shipped. It makes several communities reluctant to shop on e-

commerce. In Indonesia there is a site buying and selling online which is widely used for selling transactions buy like TokoPedia, Lazada, Zalora, Shopee, and others.

II. LITERATURE REVIEW AND HYPOTHESIS

A. Teori Technology Acceptance Model (TAM)

Theory Acceptance Model (TAM) is a theory used to describe how attitude an individual accepts and uses technology (Pranatta, 2018). TAM theory explains about one's level of confidence that by using a technology will able to improve performance and convenience, as well as the level of someone that uses it a particular technology will be free of effort.

B. E-Commerce

According to Whardana (2016) e-commerce stands for from electronic commerce which means transactions that include wide range of business activities from purchasing to sales are made through network-based media internet. E-commerce includes the distribution, sale, purchase, marketing and service of a product carried out in an electronic system such as the internet or other form of computer network.

According Laudon and Traver (2017:22-27) grouping e-commerce into 6 models, namely:

1. Business to Consumer (B2C), business that reaches out individual consumer which includes retail purchases, travel, online content.
2. Business to Business (B2B), a type of e-commerce focuses on selling other businesses. Company or organizations can act as both buyers and sellers with other cooperating companies.
3. Consumer to Consumer (C2C), media provider for consumer to sell something with the help of online marketplaces or platform. In this type individuals sell products or services to other individuals and companies through the media internet.
4. Mobile e-commerce (m-commerce), device use smartphones and tablets that allow for media internet.
5. Social e-commerce, e-commerce that uses social network and social media applications. The social e-commerce process involves the use of messaging applications like WhatsApp, Facebook Messenger, Instagram Direct Messages to interact with consumer.

6. Local e-commerce, focusing on producers and consumers based on geographic location, this form of e-commerce is the development of the type e-commerce on which it is based services such as Gojek and Grab.

C. Convenience

Convenience is how one believes that using technology is free from a difficult business then make other people's perceptions that the more the easier it is to use technology, the higher it is he interest of others to take advantage f a technology information for specific purpose, one of which is for the need to market a product or what is commonly called e-commerce. Research by Saputra Ardin and Algifari (2022) and Erlandika Novan (2021) states that convenience effect on transaction decision using e-commerce. Based on the results f the two studies, it can concludes the hypothesis as follow: H1 = Convenience influences decisions transactions using e-commerce.

D. Security

Security is defined as the ability of online stores or e-commerce in controlling and maintenance of security or data transactions. Security is consumer convenience factor to sales as well transact online. Consumers will do buying and selling transactions in e-commerce will feel safe when the services provided have a security guarantee. Reseach conducted by Erlandika Novan (2021) states that security effect on transaction decision using e-commerce. Based on teh results of two studies, it can concluded the hypothesis as follow ; H2 = Security influences decisions transactions using e-commerce.

E. Trust

Trust is a very important factor considered by the buyer ho made the transaction purchase online. Consumers will do purchases that can be considered routine, because they already have a sense of trust and security in transactions services given. Research conducted by Ariwibowo Dwi Putra Jati and Mahendra Adhi Nugroho (2013), and Novitasari Safina an Zaki Baridwan (2014) state that trust has a significant effect on decisions transactions using e-commerce. Based on the second hypothesis as following:

H3 = Trust has an effect on transaction influences decisions use e-commerce.

F. Satisfaction

Satisfaction is a feeling f pleasure or disappointment someone who appears after comparing performance (results) product that are through about performance expected. Consumer satisfactions in very important to teh company pays attention to because f its influence on company success. The success the company lies in whether or not the company is capable in satisfying consumers. In research at conducted by Sidharta Iwan and Boy Suzanto (2015), satisfaction has a significant effect on transaction decisions use e-commerce.

H4 = Satisfaction has an effect n transactions decisions use e-commerce.

III. METHODOLOGY

A. Type of Research

This study uses a quantitative approach. Quantitative approach. Method is used because data collection includes statistical analysis and enter number

B. Populations and Sample

The population chosen for this research is faculty of economics and business Muhammadiyah University Surakarta in 2019-2022. This research uses method purposive sampling.

The sample criteria used in this study are as follow:

TABLE 1. Research Sample

No.	Students of the Faculty of Economics and Business Based Study Program		
	Study Program	Frequency	Percentage
1	Management	18	17%
2	Accountancy	77	71%
3	Ekonomi Development	13	12%
Total		108	100%

TABLE 2. Research Sample

No.	Students of the Faculty of Economics and Business Based on Class		
	Class of	Frequency	Percentage
1	2019	70	65%
2	2020	16	15%
3	2021	5	5%
4	2022	17	16%
Total		108	100%

C. Data Analysis Techniques

The data used this research is data primary. The data is obtained from the results of the deployment of Google Form to students online referring to the scale.

TABLE 3. Likert Scale

No	Criteria	Score
1	Strongly Agree	5
2	Agree	4
3	Neutral	3
4	Disagree Strongly	2
5	Disagree	1

In this study used quantitative methods by using the SPSS program version 26 in double is used to know the relationship between one.

$$KPT = \alpha + \beta_1KM + \beta_2KA + \beta_3KPC + \beta_4KPN + e$$

Information:

- KPT = Transaction decisions using e-commerce
- KM = convenience
- KA = Security
- KPC = Trust
- KPN = Satisfaction
- α = Constanta
- β = Regression Coefficient
- e = error term

IV. RESULTS AND DISCUSSION

A. Validity Test

The validity test in this study was used for verify whether the reseach questionnaire is valid or appropriate for data

collection.

1. If the value of $\Gamma_{\text{count}} > \Gamma_{\text{table}}$ then the questionnaire declared valid.
2. If the value of $\Gamma_{\text{count}} < \Gamma_{\text{table}}$ table then the questionnaire declared invalid.

B. Reliability Test

Reliability Test in this study using the test statistic *Cronbach Alpha* (α), a variable is said reliable if the value of *Cronbach Alpha* (α) $> 0,60$.

C. Normality Test

Normality Test in this study uses *non-parametric One Sample Kolmogorov-Smirnov* (KS) and *Normal Probability Plot*. In this research the number one n is 108. The measurement criteria are as follow:

1. If the probability (p) $< 0,05$ means that H_0 is accepted means the data used in this study have a non-normal data distribution.
2. If the probability (p) $> 0,05$ means that H_0 is rejected means the data used in this study has a normal data distribution.

TABLE 4. One-Sample Normality Test Result Kolmogorov Smirnov Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		108
Normal Parameters,	Mean	,0000000
	Std. Deviation	1,37735880
Most Extreme Differences	Absolute	,073
	Positive	,073
	Negative	-,040
Test Statistic		,073
Asymp. Sig. (2-tailed)		,193c

Source: SPSS data processing, 2023

This study shows that the value Sig. (2-tailed) of 0,193 where $0,193 > 0,05$ then teh data declared to be normally distributed.

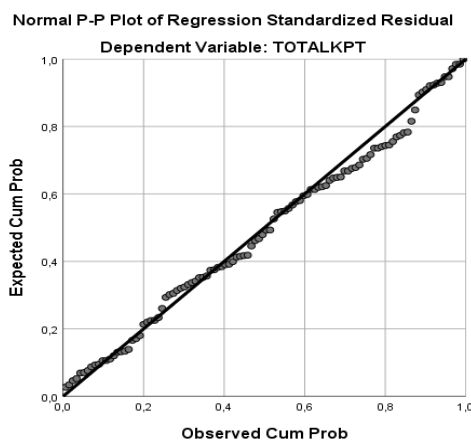


Fig. 1. Normal Probability Plot Test Results

Source: SPSS data processing, 2023

On this Normal Probability Plot graph, it can be seen that data distribution patterns where the data is in the form of dots or small circles spread out following a straight line diagonally across around diagrams. It can be concluded that this

normality test shows that as assumption of normality of data is met.

D. Multicollinearity Test

TABLE 5. Multicollinearity Test

Variable	Tolerance	VIF	Information
Convenience	0,893	1,191	No Multicollinearity
Security	0,703	1,422	No Multicollinearity
Trust	0,671	1,490	No Multicollinearity
Satisfaction	0,998	1,002	No Multicollinearity

Source: SPSS data processing, 2023

Based on the results of multicollinearity testing shows that all independent variable have tolerance iso more 0,100 and the VIF value is less than 10, so it can be concluded that there are no symptoms.

E. Heteroscedasticity Test

TABLE 6. Heteroscedasticity Test

Variable	Sig	Information
Convenience	0,934	No Heteroscedasticity
Security	0,058	No Heteroscedasticity
Trust	0,436	No Heteroscedasticity
Satisfaction	0,475	No Heteroscedasticity

Source: SPSS data processing, 2023

Based on the test results above, the sig value of each independent variable has a value $> 0,05$ which meaning it does not effect the independent variable so can be categorized not affected by heteroscedasticity.

F. Multiple Linier Regression Test

TABLE 7. Multiple Linear Regression Test

	The coefficient is not standard		Standar Coefficient	t	Sig
	B	Std. error	Beta		
(Constant)	1,565	1,972		0,794	0,429
Convenience	0,110	0,095	0,075	1,165	0,247
Security	0,551	0,066	0,585	8,288	0,000
Trust	0,285	0,074	0,277	3,838	0,000
Satisfaction	-0,069	0,065	-0,062	-1,050	0,296

Source: SPSS data processing, 2023

Based on the table above, an equations can be made regressions that will complement the results specified in study:
 $KPT = 1,565 + 0,110 KM + 0,551 KA + 0,285 KPC - 0,069 KPN + e$

Based on the multiple linier regressions model above, the results of the research regressions coefficient can be interpreted as follows:

- A. The value of the regressions on the variable convenience is marked positive of 0.110. This can be interpreted that ease of transactions using increased e-commerce 0.110.
- B. The value of the regression coefficient on the variable safety is marked 0.551. This can be interpreted that security transactions using e-commerce increased by 0.551.
- C. The value of the regression coefficient on the trust variable 0.285 This can be interpreted that increased transaction confidence using e-commerce of 0.110.
- D. The value of the regression coefficient on the variable satisfaction is marked negative of 0.069. This can be interpreted that satisfaction transactions using e-commerce

decreased by 0.069.

G. Determinant Coefficient Test (R^2)

TABLE 8. Determinant Coefficient Test (R^2)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	0,800a	0,639	0,625	1,404

Source: SPSS data processing, 2023

Adjusted R Square value is 0.625 or 62.5%. This shows that the independent variable is convenience, security of trust, and satisfaction in general Simultaneously contributing influence on variables dependent, namely transactions using e-commerce for 62.5%, while the remaining dependent variable is 37.5% explained by other variables not included in study.

H. Simultaneous Significance Test (F Test)

TABLE 9. F Test

Model	F	Sig.
Regression	45.626	0,000b
Residual		
Total		

Source: SPSS data processing, 2023

The results of the F test simultaneously show the value a significance of $0.000 > 0.05$. this means models multiple regression meets the requirements and can said to be a fit regression model.

I. Partial (T Test)

TABLE 10. T Test

Variable	Sig.	Information
Convenience	0,247	H1 Rejected
Security	0,000	H2 Accepted
Trust	0,000	H3 Accepted
Satisfaction	0,296	H4 Rejected

Source: SPSS data processing, 2023

Based on the table above it is concluded that:

The convenience variable has a significance value of 0.247 which means more than 0.05. Therefore it can be concluded that H1 is rejected, meaning that the convenience is not effect on transaction decisions using e-commerce.

The safety variable has a significance value of 0.000 which means less than 0.05. With Thus it can be concluded that H2 is accepted meaning security effect on transaction decisions using e-commerce.

The trust variable has a significance value of 0.000 which means less than 0.05. With Thus it can be concluded that H3 is accepted, meaning trust effect on transaction decisions using e-commerce.

The satisfaction variable has a significance value of 0.296 which means more than 0.05. Therefore it can be concluded that H4 is rejected, meaning trust does not affect the decision to use transactions e-commerce.

V. CONCLUSION

Based on the test results and discussion that Obtained in the previous chapter, it can be concluded as following:

1. Ease of positive and significant effect on transaction decisions using e-commerce.
2. Security has a positive and significant effect on transaction decisions using e-commerce.
3. Trust has a positive and significant effect on transaction decisions using e-commerce.
4. Satisfaction has a positive and significant effect on transaction decisions using e-commerce.

REFERENCES

- [1] Ardyanto, Denni Heru Susilo & Riyadi. (2015). Pengaruh Kemudahan Dan Kepercayaan Menggunakan E-Commerce Terhadap Keputusan Pembelian Online (Survei Pada Konsumen www.Petersaysdenim.com)
- [2] Ariwibowo, Dwi Putra Jati Dan Mahendra Adhi Nugroho (2013). Pengaruh Trust Dan Perceived of Risk Terhadap Niat Untuk Bertransaksi Menggunakan E-Commerce. Jurnal Nominal. Vol. 02, No. 01, 2013.
- [3] Astuti, Herni Justiana. (2018). Analisis Kepuasan Konsumen (Servqual Model Dan Important Performance Analysis Model)
- [4] Cahyo, Wanandi Yoso Hanur. (2014). Pengaruh Persepsi Kebermanfaatan, Keamanan, Kepercayaan Dan Persepsi Kemudahan Penggunaan Terhadap Penggunaan Online Banking Pada Mahasiswa S1 Fakultas Ekonomi Universitas Negeri Yogyakarta
- [5] Daryanti, Putri., & Muchsin Saggaff Shihab. (2019). Analisis Tingkat Kepuasan Pelanggan Dengan Menggunakan Konsep E-Servqual (Studi Kasus Pelanggan Shopee)
- [6] Ghozali, I. (2021). Aplikasi Analisi Multivariate Dengan Program Ibm Sps 26 (10 Ed.). Badan Penerbit Universitas Diponegoro.
- [7] Kamilullah, Jihad, Ari Kusyanti, & Himawat Aryadita. (2018). Analisis Pengaruh Kepercayaan, Kepuasan, Dan Reputasi Terhadap Loyalitas Konsumen Online Shop Dalam Pembelian Produk Di Toko Xyz .
- [8] Makkl, Safir. (2020). Daftar Toko Online Yang Paling Menguasai Pasar Ri Selama 2019. Diunduh Tanggal 23 Maret 2020.
- [9] Meidita, Dkk. (2018). Pengaruh Kualitas Layanan Terhadap Kepuasan, Kepercayaan Dan Loyalitas Pelanggan Pada E-Commerce (Studi Kasus Shopee). Jurnal Pengembangan Teknologi Informasi Dan Ilmu Komputer Vol. 2, No.1, Hlm, 5682-5690.
- [10] Mulyana, Yusuf Fitra (2016). Pengaruh Kepercayaan, Persepsi Risiko, Dan Keamanan Terhadap Minat Beli Konsumen Pada Toko Online (Studi Pada Toko Online Olx.Co.Id)
- [11] Nasikah, Durotun., & Selamat Fuadi. (2022). Pengaruh Persepsi Keamanan, Kemudahan Bertransaksi, Kepercayaan Konsumen, Kualitas Produk Dan Harga Terhadap Keputusan Pembelian Pada Marketplace Tokopedia
- [12] Shafa, Pradika Muthiya., & Jusuf Hariyanto. (2020). Pengaruh Harga, Ulasan Produk, Dan Metode Pembayaran Terhadap keputusan Pembelian Dalam Berbelanja Online Melalui Aplikasi Shopee (Studi Kasus Pada Pengguna Aplikasi Shopee di Bekasi)
- [13] Sugiyono. (2019). Metode Penelitian Kuantitatif, Kualitatif, Dan R&D. Cv Alfabeta.
- [14] Yutadi, Krisnu Putra. (2014). Pengaruh Persepsi Privasi, Persepsi Keamanan, Persepsi Kepercayaan, Persepsi Risiko, Persepsi Kegunaan Dan Persepsi Kemudahan Penggunaan Terhadap Minat Penggunaan E-Commerce. Jurnal Ilmiah Manajemen Dan Bisnis Vol. 1, No.1. Diakses Pada 3 Desember 2018.