Development of Technology Adoption on Purchase Decisions Among Shopee User

Tarista Indah Laila Sari [1], Dyah Suswanti Respatiningtiyas [2], Muhammad Bawono [3], Dyan Arintowati[4]

Universitas PGRI Mpu Sendok, Nganjuk Jl. A.R. Saleeh No.21, Kauman, Kec. Loceret, Kab. Nganjuk 64411, Indonesia.

tarista.indah30@gmail.com*, d_respatiningtias@upms.ac.id, mbawono@upms.ac.id, dyanarintowati@upms.ac.id.

 *corresponding author

Article Information

Abstract

Research Aim *: This study aims to identify the technology adoption factors that influence purchase decisions among Shopee users.*

Method*: This study employs a quantitative methodology incorporating causality techniques. The population in this study is the community of Gejagan Village, Loceret District, Nganjuk Regency. The sampling technique used the Slovin formula with 358 respondents. The data analysis method used is multiple linear regression*

Results: *The results show that technology adoption factors have an effect on purchase decisions among Shopee users in the community of Gejagan Village, Loceret District, Nganjuk Regency.*

Keywords : Theory Acceptance Model (TAM), perceived usefulness, ease of use, trust, and buying decision

1. Introduction

The development of technology in marketing has significantly changed the way people shop.

In the past, people usually shopped by directly interacting with sellers in physical stores. However, over time, this pattern has shifted to online shopping through gadget devices. (Nursyirwan et al., 2020) This phenomenon has driven the digitalization of businesses and has given rise to many e-commerce companies in Indonesia, such as Shopee. Shopee leads the e-commerce market based on the number of monthly visits in the second quarter of 2020, with an average visit reaching 93.4 million per month.

In addition, Shopee ranks first in the AppStore and Playstore. Shopee also won the "The Indonesia Netizen Brand Choice Award 2017" from Warta Ekonomi for the Online Shopping category in March 2017, affirming the popularity and trust of users in the platform (Jayani, 2020).

Online shopping has become a popular choice due to easy access through smartphones and e-commerce applications. However, there are challenges that must be faced regarding transaction security (Nana, 2023). Awareness of this risk affects the way consumers make purchasing decisions. Although the prices of goods tend to be lower than in physical stores, consumers must also consider security factors when making online transactions.

In addition to transaction security, the problems faced include a lack of consumer trust in the services provided and the security of their data privacy when shopping online. Without this trust, many consumers do not feel comfortable or are uncertain about making online transactions. (Karame et al., 2023). This uncertainty is often caused by concerns about the privacy of consumers' personal data that can be threatened when shopping online.

Without a strong sense of trust in the existing system, consumers tend to be reluctant to conduct transactions online. They prefer traditional shopping methods that are considered safer. This poses a challenge for the growth and adoption of e-commerce, which builds trust through transparency, data protection, and positive user experiences.

Shopee is an online marketplace application designed to make it easy for users to shop via mobile quickly and easily. This platform offers a variety of products ranging from fashion to daily necessities. Shopee is available in the form of a mobile application, allowing users to make purchasing decisions while shopping online without needing to access through a computer device. With intuitive features and ease of navigation, Shopee provides a comfortable and flexible shopping experience for users in various countries, including Indonesia.

In short, the purchasing decision is the end of a complex process in which consumers gather information, evaluate options, and consider preferences before taking purchasing action. The tendency to act before purchasing includes consumer activities such as seeking information, comparing products, and considering important factors before finally deciding whether to buy or not (Hanum & Wiwoho, 2023). This research aims to identify the technology adoption factors that influence purchasing decisions among Shopee users in the Gejagan Village community, Nganjuk Regency. With a deep understanding of the barriers and benefits of using Shopee e-commerce, this research is expected to provide practical recommendations

for Shopee users. The main objective is to enhance understanding of how perceptions of ease of use, perceived benefits, and trust influence purchasing decisions among Shopee users.

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Statement of Problem

Online shopping has become a popular choice due to easy access through smartphones and e-commerce applications. However, some challenges must be faced regarding transaction security (Nana, 2023). Awareness of this risk affects the way consumers make purchasing decisions. Although the prices of goods tend to be lower than in physical stores, consumers must also consider security factors when making online transactions.

In addition to transaction security, the problems faced include a lack of consumer trust in the services provided and the security of their data privacy when shopping online. Without this trust, many consumers do not feel comfortable or are uncertain about making online transactions. (Karame et al., 2023). This uncertainty is often caused by concerns about the privacy of consumers' personal data that can be threatened when shopping online.

Research Objectives

This research aims to identify the technology adoption factors that influence purchasing decisions among Shopee users in the Gejagan Village community, Nganjuk Regency. With a deep understanding of the barriers and benefits of using Shopee e-commerce, this research is expected to provide practical recommendations for Shopee users. The main objective is to enhance understanding of how perceptions of ease of use, perceived benefits, and trust influence purchasing decisions among Shopee users.

Method

This study aims to identify the technology adoption factors that influence purchase decisions among Shopee users. The population in this study is the community of Gejagan Village, Loceret District, Nganjuk Regency. The sampling technique used the Slovin formula with 358 respondents. The data analysis method used is multiple linear regression. The results show that technology adoption factors have an effect on purchase decisions among Shopee users in the community of Gejagan Village, Loceret District, Nganjuk Regency. In this research, buying decision (Y) is the dependent variable, while the independent variables perceived usefulness (X1), ease of use (X2), trust (X3).

Results and Discussion

Data collected using a questionnaire from 358 respondents produced valid and reliable data. These results are shown by the significance value (0.000) being smaller than the significance level (0.05 / 5%). As well as the Cronbach alpha value (buying decision 0.654; perceived usefulness 0.308; ease of use 0.526; trust 0.637). So, these results are worthy of being a reference for further analysis.The chosen analytical method is multiple linear analysis, directed towards acquiring an extensive understanding of the independent variables perceived

usefulness, ease of use, and trust relation to the dependent variable, which is buying decision. This analysis is conducted using the IBM SPSS program, version 23 for Windows. In order to meet the prerequisites outlined in the Multiple Linear Regression model, it is imperative to assess classical assumptions.

Multiple Linier Regression Analysis
Based on the multiple linear regression equation is an be formulated as follows:

$$Y = 5.947 - 0.143X1 + 0.349X2 + 0.088X3$$

From the function of the model above it can be understood that:

1) The constant value of 5.947 states that if there is a perception of usefulness, convenience use, and trust are fixed hence the purchasing decision increased by 5,947

2) The perceived usefulness coefficient value is 0.143, this value has meaning that for every 1% increase in the level of the perceived usefulness variable (X1), then The purchasing decision variable (Y) will increase by 0.143. From these results it can be stated that the variable is perception of usefulness (X1) has a positive effect on the purchasing decision variable.

3) The ease of use coefficient value is 0.349. This value contains meaning that for every 1% increase in the level of ease of use variable (X2), then the purchasing decision variable (Y) will increase of 0.349. From these results you can it is stated that the ease of use variable (X1) has a positive effect on the purchasing decision variable.

4) The trust coefficient value is 0.088. This value means that for every 1% increase in the level of the trust variable (X1), the variable Purchasing decisions (Y) will increase by 0.088. From These results can be stated that the variable perception of usefulness (X1) has a positive effect on the purchasing decision variable

3.1. Test the Coefficient of Determination (Adjusted R2)

The adjusted coefficient of determination (adjusted R2) aims to measure the extent of the model's abilityto explain variations in the dependent variable. Determination analysis is used to determine the percentage joint contribution of the independent variables to the dependent variable.Thecoefficient reflects the extent to which variations in the independent variables included in the model are able to explain variations in the dependent variable. When Adjusted R2 = 0, it indicates that the variation in the independent variable included in the method is unable to explain the variation in the dependent variable at all. Conversely, if Adjusted R2 = 1, it means that the variation in the independent variable entered into the model can explain 100% of the variation in the dependent variable.In the calculations below, the coefficient of determination results are given for three independent variables that is leadership, work ethic, and work discipline.

Table2. Test of Adjusted R
Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.495[a]	.245	.238	1.42665	1.995

From Table above, it shows that the coefficient of determination is 0.245, which means that the contribution of the variables perception of usefulness, ease of use, and trust to purchasing decisions is 24.5% while the remaining 75.5% is explained by the influence of other factors.

3.3 Hypotesis Testing

Testing the hypothesis in this study using the t-test and F-test, as follows:Partial test results are carried out via the t test, where the values are compared with a significance level of 0.05.

Based on the estimation results in the previous table, the following are the t test results for each independent variable as follows:

a) Perceived Usefulness (X1)

The test results using the SPSS 29 program obtained a t-count value for perceived usefulness of 2.790. Meanwhile, the ttable value for the number of respondents of 358 was obtained at 1.967. So it is found that tcount is greater than ttable or 2.790 > 1.967 and the probability value of 0.006 is smaller than the real level of 0.05, so Ho is rejected. From these results it can be concluded that perceived usefulness is significantly related to purchasing decisions with the conclusion that Ho is rejected and Ha is accepted. This states that perceived usefulness provides a real relationship to purchasing decisions.

b) Ease of Use (X2)

The test results using the SPSS 29 program obtained a t-count value for perceived usefulness of 7.735. Meanwhile, the ttable value for the number of respondents of 358 was obtained at 1.967. So it is found that tcount is greater than ttable or 7.735 > 1.967 and the probability value of 0.010 is smaller than the real level of 0.05, so Ho is rejected. From these results it can be concluded that ease of use has a significant relationship with purchasing decisions conclusion Ho is rejected and Ha is accepted. This states that ease of use provides a real relationship to purchasing decisions.

c) Trust (X3)

The test results using the SPSS 29 program obtained a t-count value for perceived usefulness of 2.336. Meanwhile, the ttable value for the number of respondents of 358 was obtained at 1.967. So it is found that tcount is greater than ttable or 2.336 > 1.967 and the probability value of 0.020 is smaller than the real level of 0.05, so Ho is rejected. From these results it can be concluded that trust has a significant relationship to purchasing decisions with the conclusion that Ho is rejected and Ha is accepted. This states that trust provides a real relationship to purchasing decisions.

Based on Table 4.10 above, it can be seen that the calculated f value is 38.205 with a significance value of 0.000. The ftable value for the number of respondents is 358 with an alpha level of 5% and k or the number of independent variables is 2.63, so the ftable value is df1 = number of variables – 1 (4 – 1 = 3), df2 = n – k – 1 (358 – 3 – 1 = 354). So the ftable value is 3.091. So it is obtained that fcount is greater than Ftable or 38.205 > 2.63 and it can also be seen that the probability value is smaller than the significance level (α) 5% or 0.000 < 0.05, so it can be concluded that the variables perceived usefulness, ease of purchase, trust simultaneously (together) have a relationship with purchasing decisions.

Conclusion

This research aims to determine the influence of technology adoption on purchasing decisions among Shopee users in the Gejagan Village Community, Locerret District, Nganjuk Regency. Based on the data that has been collected and tested using SPSS 28, the following

conclusions can be drawn:

1. Perception of usefulness has a significant influence on purchasing decisions of the people of Gejagan Village, Loceret District, Nganjuk Regency.

The analysis carried out shows that perceived usefulness has a significant influence on purchasing decisions of the people of Gejagan Village, Loceret District, Nganjuk Regency. This means that the better people assess the usefulness of a product or service, the more likely they are to make a purchase. In other words, if people feel that the product being offered meets their needs and provides clear benefits, they tend to be more confident in making a purchase. Therefore, it is important for marketers to emphasize the value and benefits of the products they offer to increase purchasing decisions among the public.

2. Ease of use has a significant influence on purchasing decisions among Shopee users in the Gejagan Village, Loceret District, Nganjuk Regency.

The analysis carried out shows that ease of use has a significant influence on purchasing decisions of the people of Gejagan Village, Loceret District, Nganjuk Regency. This means that the easier a product or service is to use, the more likely people will buy it. This is because ease of use creates a positive and enjoyable experience for users, reduces barriers and difficulties in the purchasing process, easily increases customer satisfaction, and increases user loyalty to the product or service.

3. Trust has a significant influence on purchasing decisions among Shopee users in the Gejagan Village, Loceret District, Nganjuk Regency

The analysis carried out shows that ease of use has a significant influence on purchasing decisions among Shopee users in the Gejagan Village, Loceret District, Nganjuk Regency. This means that the higher the user's level of trust in Shopee, the more likely they will make a purchase. This is because users feel safe and confident in making transactions on Shopee, users believe that the products sold on Shopee are of good quality, users feel satisfied with Shopee customer service, and users trust the reputation of sellers on Shopee.

4. Perceptions of usefulness, ease of use, and trust have a significant influence on purchasing decisions among Shopee users from the Gejagan Village community, Nganjuk Regency.

Based on the research results, it can be concluded that perceptions of usefulness, ease of use, and trust have a significant influence on purchasing decisions among Shopee users in the Gejagan Village community, Nganjuk Regency. This means that the higher a user's perception of Shopee's usability, the easier it is for them to use the platform, and the higher their level of trust in Shopee, the more likely they are to make a purchase. These three factors are interrelated and work together to influence purchasing decisions. Perceived usefulness shows that users feel Shopee is useful and meets their needs, customer convenience shows that users find Shopee easy to navigate and use, trust shows that users feel safe and confident in using Shopee.

References

Adi Ahdiat. (2023). 5 E-commerce dengan Pengunjung Terbanyak 2023. *Adi Ahdiat*, 1–7. https://databoks.katadata.co.id/datapublish/2023/05/03/5-e-commerce-dengan-pengunjung-terbanyak-kuartal-i-2023

Alalwan, A. A., Dwivedi, Y. K., Rana, N. P., & Simintiras, A. C. (2016). Jordanian consumers' adoption of telebanking. *International Journal of Bank Marketing*, *34*(5), 690–709. https://doi.org/10.1108/IJBM-06-2015-0093

Arintowati, D. (2016). *PENGARUH KEMAMPUAN, DISIPLIN DAN KEPUASAN KERJA TERHADAP KINERJA PEGAWAI DI KANTOR KECAMATAN REJOSO KABUPATEN NGANJUK*. *3*(1), 41–49.

Astuti, R. (2022). Analysis of Factors Affecting E- Commerce Customer Purchase Decisions. *Morfai Journal*, *2*(1), 1–20. https://doi.org/10.54443/morfai.v2i1.190

Ayuningtiyas & Gunawan. (2018). *PEMBELIAN DARING DI APLIKASI BUKALAPAK PADA*. *2*(1), 152–165.

Davis, F. D. (1989). *Perceived Usefulness , Perceived Ease of Use , and User Acceptance of Information Technology*. *January*. https://doi.org/10.2307/249008

Davis, F. D. (1996). *A critical assessment of potential measurement biases in the technology acceptance model : three experiments*. 19–45.

Frimayasa. (2022). *Jurnal Ekonomi dan Bisnis , Vol . 11 No . 3 November 2022 E- ISSN*. *11*(3).

Hanum, H., & Wiwoho, G. (2023). Pengaruh Kepercayaan Konsumen, Kemudahan Penggunaan, dan Keamanan Transaksi Terhadap Keputusan Pembelian Online. *Jurnal Ilmiah Mahasiswa Manajemen, Bisnis Dan Akuntansi (JIMMBA)*, *5*(4), 465–480. https://doi.org/10.32639/jimmba.v5i4.478

Haryadi Sarjono, W. J. (2011). *SPSS vs LISREL: Sebuah Pengantar, Aplikasi untuk Riset*. Jakarta Salemba Empat.

Hendra & Amin. (2019). *Kurs : Jurnal Akuntansi , Kewirausahaan dan Bisnis Kurs : Jurnal Akuntansi , Kewirausahaan dan Bisnis*. *4*(2), 258–275.

Indarsin & Ali. (2017). *Attitude toward Using m-Commerce : The Analysis of Perceived Usefulness , Perceived Ease of Use , and Perceived Trust : Case Study in Ikens Wholesale Trade , Jakarta – Indonesia*. *6663*, 995–1007. https://doi.org/10.21276/sjbms.2017.2.11.7

Jayani. (2020). *Peta Persaingan E-Commerce Indonesia pada Kuartal II-2020*. 21–22.

Karame, J. I., Mangantar, M., Gunawan, E., Karame, J. I., Mangantar, M., Gunawan, E., Manajemen, J., & Ekonomi, F. (2023). *FAKTOR-FAKTOR YANG MEMPENGARUHI KEPUTUSAN PEMBELIAN ONLINE GENERASI Z Surel : 1*, 248–258.

Kotler, P., & Keller, K. (2016). *Manajemen Pemasaran. Edisi 15. Boston: Pendidikan Pearson*.

Marlius. (2017). KEPUTUSAN PEMBELIAN BERDASARKAN FAKTOR PSIKOLOGIS DAN BAURAN PEMASARAN PT. INTERCOM MOBILINDO PADANG. *Pundi, Vol. 01, No. 01*, *01*(01), 57–66.

Miftahul. (2021). *Konsep uji validitas dan reliabilitas dengan menggunakan spss.8210047*.

Mustafidah Mahardhika. (2018). ANALISIS HARGADAN KUALITASPRODUK TERHADAP TINGKAT PENDAPATAN PETANI BAWANG MERAH DI DESA MOJOREMBUN KECAMTAN REJOSO KABUPATEN NGANJUK. *Jurnal Akuntansi Dan Manajemen*.

Nana. (2023). Implementasikan Sistem Informasi dalam Mendukung Perilaku Pembelian Terhadap Keputusan Pembelian E-Commerce. *Jurnal MENTARI: Manajemen, Pendidikan Dan Teknologi Informasi*, *2*(1), 20–30. https://doi.org/10.33050/mentari.v2i1.343

Novaliana, I. (2021). *Pengaruh promosi media sosial dan harga pada kepuasan konsumen di merdeka cafe nganjuk*. 711–720.

Nursyirwan, V., Pamulang, U., Ardaninggar, S. S., & Pamulang, U. (2020). *THE FACTOR ANALYSIS THAT INFLUENCE THE STUDENT PURCHASE THE FACTOR ANALYSIS THAT INFLUENCE THE STUDENT PURCHASE INTENTION IN SHOPEE E-COMMERCE. May*. https://doi.org/10.32493/eaj.v3i2.y2020.p118-129

P. kotler dan Armstrong G. (2016). *Prinsip-Prinsip PEMASARAN*. 1–63. Prof. Dr. Sugiyono. (2022). *METODE PENELITIAN KUANTITATIF,KUALITATIF,DAN R&D*.

Putri, N. A. R., & Iriani, S. S. (2019). Faktor-Faktor yang Memengaruhi Keputusan Pembelian Melalui E-Commerce Shopee. *Jurnal Komunika : Jurnal Komunikasi, Media Dan Informatika*, *8*(2), 69. https://doi.org/10.31504/komunika.v8i2.2391

Respatiningtias, D. S. (2021). Strategi Mengurangi Tingkat Resiko Kredit Melalui Roll Over, Take Over Dan Pembayaran Pokok Pada Koperasi Artha Pamenang Nganjuk. *Media Mahardhika*, *19*(2), 219–229. https://doi.org/10.29062/mahardika.v19i2.249

Supheni, I., & Nurida, I. (2017). Pengaruh Partisipasi Penyusunan Anggaran, Komitmen Organisasi dan Motivasi Terhadap Kinerja Manajerial Pada Dinas Pendapatan Pengelolaan Keuangan dan Aset Daerah Kabupaten Nganjuk.

Jurnal Akuntansi Dan Manajemen Mutiara Madani, *4*(1), 35–48. https://jurnal.stienganjuk.ac.id/index.php/ojsmadani/article/view/11

Thomson. (2013). *Analisis Pengaruh Kualitas Pelayanan Konsumen Pada Warung Ucok Durian Iskandar Muda Medan Terhadap Keputusan Pembelian. Fakultas Ekonomi USU. 1*(1), 1–10.

Utami, N. W. A. B., & Herawati, N. T. (2020). Pengaruh Persepsi Kemanfaatan, Kemudahan Penggunaan, Resiko dan Kesesuaian Terhadap Minat Menggunakan Transaksi Non Cash Pada PT BRI (PERSERO) TBK (Studi Kasus: Mahasiswa Prodi S1 Akuntansi Undiksha). *JIMAT (Jurnal Ilmiah Mahasiswa Akuntansi) Universitas Pendidikan Ganesha*, *11*(2), 310–319. https://ejournal.undiksha.ac.id/index.php/S1ak/article/view/25383