

THE INFLUENCE OF PERCEPTION OF USEFULNESS AND PERCEPTION OF CONVENIENCE ON USER BEHAVIOR IN THE ADOPTION OF GEVENRMNET E-COMMERCE IN THE WJDM (WEST JAVA DIGITAL MARKETPLACE) PROGRAM IN THE PROCUREMENT OF GOODS AND SERVICE BERAU OF WEST JAVA PROVINCE

Dhyan Muftyana^{1*}, Febriyansyah Mahendra²

¹Widytama University, Bandung, Jawa Barat, Indonesia, <u>dhyan.muftyana@widyatama.ac.id</u>
² Widyatama University, Bandung, Jawa Barat, Indonesia, febriyansyah.4961@widyatama.ac.id

*Correspondence email: icetea@gmail.com

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Perception of Usefulness, Perception of Convenience, User Behavior, Government Ecommerce ABSTRACT

Introduction. The purpose of this study is look into how UMKM in the West Java Province use government-run e-commerce platform, particularly in the West Java Digital Marketplace (WJDM) program, and how perception of usefulness and convenience affect user behavior. The study is motivated by the ongoing digital transformation in public procurement and the strategic role of UMKM in fulfilling government needs for goods and services.

Data Collection Methods. A quantitative research design was employed, involving the distribution of questionnaires to 120 UMKM that had previously onboarded on government platform inthe WJDM program across 10 regencies and cities in the province.

Data Analysis. Multiple linear regression analysis was performed on the gathered data using SPSS version 24..

Results and Discussion. These findings highlight how crucial it is to develop an e-commerce system that is both easy to use and functionally effective in order to boost UMKM's involvement in public procurement and aid in the West Java Province's adoption of an Electronic-Based Government System (SPBE).

Conclusion. The results show that user behavior is strongly influenced by perception of usefulness and perception of convenience, both separately and in combination.



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1. INTRODUCTION

Purchasing products and services in the public sector has experienced a significant shift due to digital transformation, particularly through the integration of electronic catalogs and online marketplaces. These platforms offer greater accessibility for Usaha Mikro, Kecil, dan Menengah (UMKM) to engage in supplying the government's procurement needs, particularly in West Java Province. By 2024, the total transaction value between the West Java Provincial Government and UMKM through electronic systems reached approximately IDR 4.16 trillion, accounting for over 73% of the region's procurement spending.

Indonesia's digital economy, especially the e-commerce sector, has grown substantially over the past decade in line with advancements in information and communication technology. According to a McKinsey report, Indonesia's e-commerce market grew significantly from USD 8 billion in 2018 to USD 43 billion in 2021, placing in the top ten worldwide marketplace. This expansion has provided UMKM with new business opportunities, such as broader market access, enhanced operational efficiency, and increased competitiveness (Khan et al., 2014)¹. However, the adoption of integrated online-to-offline models, digital literacy, and business orientation are some of contextual elements that affect the success of e-commerce implementation, which differs by location (Su et al., 2021)².

UMKM are an important part of Indonesia's economy, making up 99 percent of business actors and providing more than 61% of the country's GDP, or more than IDR 9,580 trillion. Additionally, they account for almost 70% of all jobs, which makes them essential for promoting equitable growth and economic mobility (Rahayu & Day, 2016' BCG, 2022)³ Numerous research have determined the elements that affect UMKM's adoption of ecommerce. These include the existence of cutting-edge technology, the availability of digital infrastrukcture, the function of organizational culture, and the caliber of human resources (Guntara et al., 2023; Al-Dmour et al., 2017)⁴. The COVID-19 pandemic further accelerated the digital shift, pushing UMKM to adapt and embrace online systems for business continuity (Kurniawati et al., 2021)⁵. Other critical aspects include sociocultural factors, internal business dynamics, and user trust in digital platforms (Noviaristanti et al., 2022);6 (Mahliza, 2020)⁷. To build this trust, platforms must ensure a secure environment, provide high-quality information, and offer an intuitive user interface (Aslam et al., 2019);8 (Chawla & Kumar, 2021)9. Understanding how UMKM can effectively participate in public procurement through program like the West Java Digital Marketplace (WJDM) and what drives their engagement is vital. While existing literature has explored related areas, by investigating how



perception of usefulness and perception of convenience impact UMKM user behavior while embracing government e-commerce, this study seeks to make a further contribution. Platform developers and legislators should find these findings useful in lowering adoption obstacles, improving user experience, and increasing UMKM's involvement in public procurement initiatives

2. LITERATURE REVIEW

The Technology Acceptance Model (TAM), which identifies perception of usefulness and perception of convenience as the two main factors driving system adoption, serves as the foundation fo this study. The behavioral intention and actual use of technology platforms, in this case government-based e-commerce systems like WJDM program, are thought to be influenced by these characteristics.

The term "perception of usefulness" describes a person's conviction that using a specific technology will improve their productivity and job performance. This idea was first presented by Davis (1989)¹⁰, who emphasized that users are more willing to interact with technology that they believe will help them with their tasks. This was further developed by Venkatesh et al. (2000)¹¹, who highlighted important measures like increased efficacy, better performance, and total practical utility gained by utilizing the system.

The degree to which a person believes that utilizing a system would be effortless is known as perception of convenience. Simple and easy-to-use technologies tend to draw more users, especially among business actors with limited time and technological skill, as suggested by Yunita and Dyah (in Yuliawan, 2018)¹². Furthermore, according to Venkatesh et al. (2000)¹³, systems should have user-friendly interfaces, demand little mental work, and are simple to manipulate in accordance with user objectives.

In this study, perception of usefulness and ease of use are treated as independent variables, while user behavior in adopting government platform in the WJDM is the dependent variable. The research aims to examine whether these two variables significantly influence how UMKM interact with and adopt the government's digital procurement platform.

PREVIOUS RESEARCH

Nabila and Listiyorini (2016)¹⁴ investigated how a number of characteristics, including as risk perception, information quality, and convenience of use, affect customers' decisions to make purchases online. Their results showed that purchase behavior was significantly impacted

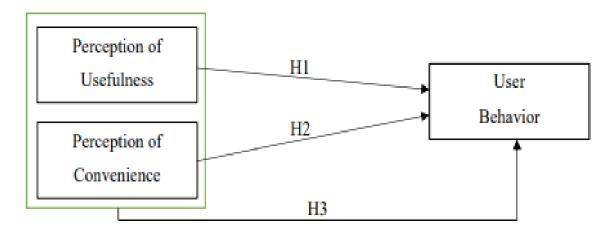


negatively by perceived risk. In particular, users are less likely to complete an online transaction on the Bukalapak platform if they perceive a higher level of risk. This implies that perceived safety and trust are still important factors in digital consumer behavior.

In another study, Adi Triatma (2012)¹⁵, as cited in Andryanto (2016)¹⁶, explored how trust and technological acceptance influenced consumers' interest in making online purchases, using the Kaskus platform as a case study. The study demonstrated that users' intents are significantly influenced by perception of usefulness, with those who felt the platform useful being more likely to complete transactions.

Similarly, Yoon C. Cho (2012)¹⁷, who was also cited by Andryanto (2016)¹⁸—examined the interplay between perception of usefulness, perception of convenience, trust, and intention to buy in digital contexts. The findings showed that users' behavioral intentions when shopping online were positively and statistically significantly impacted by perception of usefulness and convenience of use. These studies repeatedly show that functional value and usability are important elements in motivating customers to embrace and stick with e-commerce platforms.

RESEARCH HYPOTHESIS



Based on the research objectives, problem formulation, framework of thought and description of the framework of thought above, the researcher provides the following hypothesis:

- H1. Perception of usefulness has a positive effect on UMKM user behavior in procurement within the West Java Provincial Government
- H2. Perception of convenience influences UMKM user behavior in procurement within the West Java Provincial Government



H3..Both perception of usefulness and perception of convenience together significantly influence user behavior in procurement within the West Java Provincial Government

3. METHODS

In order to investigate how perception of usefulness and perception of convenience impact user behavior within the framework of government platform in the the WJDM (West Java Digital Marketplace) program, this study used a quantitative descriptive methodology. UMKM participants who had successfully onboarded on WJDM program's online store and e-catalog system, which is run by the West Java Province Bureau of Goods and Services Procurement, were given a structured questionnaire to complete in order to gather data.

The target population included 531 UMKM spread across 10 regencies/cities, namely Bandung, West Bandung, Bogor, Ciamis, Cirebon, Garut, Kuningan, Majalengka, Subang, and Purwakarta. A sample of 120 respondents, representing roughly 20% of the total population was selected using purposive sampling, a non-random technique where participants are chosen based on specific criteria (Sugiyono, 2010)¹⁹ (Tilaar et al., 2018)²⁰. The inclusion criterion was UMKM that had completed onboarding on the WJDM program.

To determine the appropriate sample size, the formula by Hair et al. $(2010)^{21}$ was applied, which recommends a respondent-to-indicator ratio of 5 to 10. Given the 18 questionnaire items used in this study, the minimum sample size required was 90, and the maximum was 180, making the 120 responses adequate and representative.

Data analysis was conducted using multiple linear regression via SPSS version 24. Prior to hypothesis testing, the model underwent classical assumption testing, including assessments of normality, multicollinearity, and heteroscedasticity to ensure validity. The regression model used in this study is as follows:

 $Y = a + b_1X_1 + b_2X_2 + e$

Where:

Y = User Behavior

 X_1 = Perception of Usefulness

 X_2 = Perception of Convenience



a = Constant

 b_1 , b_2 = Regression Coefficients

e = Error term

This analytical model is adapted from Khotimah & Febriansyah (2018)22 and modified to suit the current study's context. The significance threshold was set at 0.05, meaning that pvalues below this level indicate a statistically significant relationship between the independent and dependent variables.

4. RESULTS AND DISCUSSION

This study was conducted in 10 (ten) WJDM (West Java Digital Marketplace) locations, namely 1) Bandung, (2) West Bandung, (3) Bogor, (4) Ciamis, (5) Cirebon, (6) Garut, (7) Kuningan, (8) Majalengka, (9) Subang, and (10) Purwakarta and was implemented from October to November 2024. The population of this study were 531 UMKM participants who were onboarding online stores and electronic catalogs. Purposive sampling was used to obtain the sample in the interim. This study's sample size employed the method Hair et al. (2010) state in Choon Ling et al. (2011) that the number of all indicators in the variable multiplied by 5–10 determines the optimal and representative responder size. In this study, there were 18 question items. The minimum limit of respondents for this study is $18 \times 5 = 90$, while the maximum limit is $18 \times 10 = 180$, thus 120 respondents were taken

Respondents by Age: Based on 120 respondents who participated in answering the questionnaire, it shows that respondents aged 20-30 years were 17 people with a percentage of 14.2%, aged 31-40 years were 12 people with a percentage of 10%, aged 41-50 years were 56 people with a percentage of 46.7%, aged 51-60 years were 24 with a percentage of 20%, aged under 20 years were 10 with a percentage of 8.3%, and aged over 60 years were 1 with a percentage of 0.8%. The composition of the respondents' ages is explained in the following table:

No	Respondents Age	Number of Respondents	Percentage
1	Under 20 Years	10	8,3%
2	20-30 Years	17	14,2%
3	31-40 Years	12	10%
4	41-50 Years	56	46,7%
5	51-60 Years	24	20%
6	Above 60 Years	1	0,8%
Total Respondents		120	100%

Source: Primary Data, 2025



Respondents by Gender: all respondents are female (100%). This is because the Bureau of Procurement of Goods and Services invites UMKM for onboarding in collaboration with the Women's Empowerment and Child Protection Service of West Java Province and sent MSME participants who are alumni of the Sekoper Cinta Women's Empowerment School fostered by Mrs. Atalia Praratya who initiated it when she served as Chairperson of TP PKK in her capacity as the wife of the Governor of West Java.

Respondents based on onboarding on Marketplace:

No	Market Place	Number of Respondents
1	Padi UMKM	60
2	Gratis Ongkir	26
3	Indo Trading	11
4	Grab	12
5	E Katalog	11
Nun	iber of Respondents	120

Source: Primary Data, 2025

Multiple Regression Analysis Results

The purpose of this multiple linear regression test was to determine how much the independent variables—benefits and ease of use—influenced the dependent variable, user behavior.

The table below displays the multiple regression test's findings:

Table 1 t-Test Results.

Г	Model	Standardized Coefficients		e:-	
Model		Beta		Sig.	
Г	(Constant)		2,918	,004	
١.	PR	-,412	-4,464	,000	
ľ	PM	2,229	9,803	,000	
L	PKP	,779	10,251	,000	

a. Dependent Variable: KP

Table 2 F-Test Results.

М	odel	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	199,775	3	66,592	42,515	,000b
l	Residual	181,692	116	1,566		
L	Total	381,467	119			

a. Dependent Variable: keputusan_pembelian

b. Predictors: (Constant), persepsi_kemudahan_penggunaan, persepsi_risiko, persepsi_manfaat Source: Primary Data, 2025



The following are the multiple linear regression test results based on the aforementioned table: KP = 2.229 PM + 0.779 PKP + (-0.412) PR The regression coefficient value of the risk variable is -0.412, which means that for every unit rise in the risk variable, the KP (user behavior) variable will drop by -0.412, according to the regression equation test results shown in table 1 above. The perception of usefulness variable regression coefficient value of 2.229 means that the KP (user behavior) variable will rise by 2.229 for every unit increase in the perception of convenience variable is 0.799. This means that the KP (user behavior) variable will rise by 0.799 for every unit increase in the perception of convenience variable.

Simultaneous Test (F)

In essence, the F statistical test determines whether each independent variable in the regression model influences the dependent variable jointly. At a significance level of 0.05, independent variables are considered to have an impact on the dependent variable if the Fcount findings are greater than the F-table. The F-table value in this investigation is 3.08. Table 2 displays the outcomes of the simultaneous test (F). Table 2 shows that the F test yielded an F-count of 42.515, meaning that 42.515> 3.08, and a significance of F of 0.000, meaning that 0.000<0.05. Based on these result, Ha is accepted while Ho is rejected. Alternatively, it can be said that KP (User Behavior) is influenced by both usefulness and convenience..

Partial Test (t)

The t test shows how far the influence of one independent variable (perception of usefulness and convenience) individually on the dependent variable KP (User Behavior). Independent variables can be said to have an influence if t-count> t-table and sig. <0.05. In this study, the t-table value is 1.657. The results of the partial test (t) can be seen in table 1.

- 1. The Influence of Perception of usefulness on KP (User Behavior). Based on the results of the t-test in table 4.20, the t-count value is 9.803 and the sig. value is 0.000. These results indicate that the sig. value is 0.000. These results indicate that the sig. value 0.000<0.05. So Ha is accepted and Ho is rejected, which means that the perception of usefulness variable has an effect on User Behavior.
- 2. The Influence perception of convenience on KP (User Behavior). Based on the results of the t-test in table 1, the t-count value is 10.251 and the sig. value is 0.000. These results indicate that the sig. value is 0.000. These results indicate that the sig. value is 0.000<. So Ha is accepted and Ho



is rejected, which means that the perception of convenience variable has an effect on the User Behavior variable.

Determination Coefficient Test (R2)

The degree to which the model can account for the variance of the dependent variable is shown by the Determinant Coefficient R2. The following table displays the findings of the determination coefficient test:

Table 3 Regression Test Results.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,724ª	,524	,511	1,252

a. Predictors: (Constant), persepsi_kemudahan_penggunaan, persepsi_risiko, persepsi_manfaat Source: Primary Data, 2025

According to the determination coefficient test (R) results, which are displayed in table 4.21, the value of 0.511, or 51%, indicates that the variables of perception of usefulness and convenience can account for User Behavior, with the remaining 49% being influenced by variables not included in the research model.

Standardized Coefficients Beta

The following are the results of the table analysis of the standardized coefficients beta, which can be seen below:

Table 4 Standardized Coefficients Beta.

Independent Variable	Dependent Variable	Standardized Beta
		Coefficients
Perception of Usefulness		2,229
Perception of Convenience	User Behavior	,779
Others		-,412

Source: Primary Data, 2025

According to the above table, the perception of usefulness variable, which has a value of 2.229, is the most prevalent variable in this study and has the most influence on User Behavior. It is followed by the perception of convenience variable, which has a value of 0.779, and other variables that were not examined in this study, which have a value of -0.412.

Discussion

Benefits and simplicity of use together (simultaneously) have a substantial impact on user behavior, according to the study's findings on the influence of these two factors on UMKM onboarding user behavior in the West Java Digital Marketplace (WJDM) activities in West Java Province. This is demonstrated by the F test findings, which showed an F-count of 42.515 with a 5% error rate. The study's F table is 3.08, indicating that the results show that F-count is



more than F-table, indicating that the study has a positive and significant impact either separately or in combination. The total coefficient of determination (R2) for the independent variables in this study is 51% for the dependent variable. However, other factors that are not included of the research model have an impact on the remainder. The Standardized Beta Coefficients results indicate that the perception of convenience variable has the most influence on this study, followed by the perception of usefulness variable.

The results of this study indicate that the perception of usefulness the Influence on the user behavior of UMKM onboarding in the WJDM (West Java Digital Marketplace) activities of West Java Province shows that there is an influence of percepction of usefulness on user behavior as evidenced by the results of the t-test where the t-value of the perception of usefulness variable on user behavior is 9.803, with a significance value of 0.000. Which means a significance value of 0.000 < 0.005.

The influence perception of convenience on user behavior of UMKM onboarding in the WJDM (West Java Digital Marketplace) activities of West Java Province, the results of the study indicate that there is an influence of perception of convenience on user behavior as evidenced by the results of the t-test where the t-count value of the Ease of Use variable on Purchasing Decisions is 3.956 with a significance value of 0.000, t-test with a t-count value of 11.960 and a significance value of 0.000, which means a significance value of 0.000 <0.05.

5. CONCLUSION

Success in adopting e-commerce in the government procurement sector is not only determined by the ability of service providers to create an easily accessible and user-friendly e-commerce ecosystem. Ensuring services from the user's side, e-commerce adoption can be measured from the perception of the usefulness and perception of convenience to conduct government procurement transactions.

Perception of usefulness means that the efforts of UMKM to be able to onboard on WJDM (West Java Digital Marketplace) program can bring UMKM closer to users of the benefits of goods and services offered by UMKM to the local government, so that the needs of the local government for goods and services can be met by UMKM which can support the development of UMKM to increase turnover and increase economic value.

The perception of convenience of UMKM to be able to operate a business on the available platform so that it also plays a role as a salesperson in e-



commerce trading that is able to present an e-commerce platform that is in accordance with the needs of the local government for goods and services to support public services which are its duties and authorities. Some conclusions from this study are as follows:

- 1. The results of the study show that simultaneously (together) the variables of perception of usefulness and perception of convenience have a significant effect on user behavior.
- 2. The results of the study show that partially perception of usefulness have a significant positive effect on user behavior.
- 3. The results of the study show that partially perception of convenience has a significant positive effect on user behavior.

As in the results of the study above, which measures the perception of usefulness and convenience in adopting e-commerce, which will have a significant effect on the user behavior of UMKM who will be able to optimize the government's goods and services procurement platform both through online stores and electronic catalogs to support the realization of SPBE, or ElectronicBased Government System in West Java Province with the concept of clean electronic government (e-government).

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