

# Determinants of Consumer Intention to Purchase Via E-Commerce Platforms: A Quantitative Perspective

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## Abstract

This study investigates the determinants of consumer intention to purchase via e-commerce platforms, focusing on perceived usefulness (PU), perceived ease of use (PEOU), and trust (TR). Using a quantitative approach, data were collected from 100 Indonesian e-commerce users through a structured online questionnaire. Pearson correlation and multiple linear regression analyses were employed to examine the relationships among the variables. The results reveal that PU, PEOU, and TR do not significantly influence consumer intention in this context. These findings contrast with earlier studies that emphasized the importance of these variables, suggesting that Indonesian consumers may have reached a level of digital maturity where traditional Technology Acceptance Model (TAM) factors are no longer strong predictors. The study highlights the need to consider newer influencing factors such as user experience, social influence, and platform engagement in modern e-commerce behavior. Implications for theory and practice are discussed.

**Keywords:** Consumer Intention, E-Commerce, Trust, Technology Acceptance Model

## Introduction

In the past two decades, the rapid advancement of digital technologies has transformed how consumers interact with businesses, leading to the exponential growth of electronic commerce (e-commerce) worldwide. According to Statista (2023), global e-commerce sales reached over \$5.7 trillion in 2022, and this number is expected to continue rising in the coming years. This shift is driven by various factors, including greater internet penetration, widespread smartphone usage, advancements in payment technologies, and increased consumer comfort with digital platforms (Paun, Ivascu, Olteteanu, & Dantis, 2024). Across continents, shopping online has become not just an alternative but, for many, the primary method of purchasing goods and services.

This global trend is also evident in Southeast Asia, particularly in Indonesia, where e-commerce adoption has grown significantly in recent years. With a large and young population, high mobile usage, and increasing digital literacy, Indonesia has become one of the fastest-growing digital markets in the region (Jurriëns & Tapsell, 2017). Local e-commerce platforms such as Tokopedia, Shopee, and Bukalapak dominate the online shopping landscape, offering consumers a wide range of products, seamless payment systems, and fast delivery services. However, despite the growing usage of these platforms, many users do not proceed to complete their purchases, indicating a discrepancy between browsing behavior and actual consumer intention to buy (Lăzăroiu, Neguriță, Grecu, Grecu, & Mitran, 2020).

This discrepancy points to a crucial issue in understanding consumer behavior in online contexts. While consumers may frequently visit e-commerce platforms and engage with products, their **intention to purchase** does not always follow. Several factors may influence this intention, including perceptions of the

platform's usefulness, ease of use, and trustworthiness. Identifying and understanding these determinants is vital for businesses to design better strategies that can convert visits into actual purchases.

Various theoretical models have been used to study technology acceptance and online consumer behavior. One of the most widely applied is the **Technology Acceptance Model (TAM)** developed by Davis (1989), which posits that **Perceived Usefulness (PU)** and **Perceived Ease of Use (PEOU)** significantly influence an individual's intention to use a particular technology. In the context of e-commerce, these constructs have been extended to examine how they influence consumer intention to make purchases online. Another critical factor that has emerged from more recent research is **Trust (TR)**, which is especially relevant in online environments where physical interaction is absent and perceived risks are higher. Scholars like Gefen et al. (2003) and Pavlou (2003) have highlighted the role of trust in reducing uncertainty and facilitating consumer engagement in e-commerce.

While these studies offer valuable insights, most have been conducted in developed markets or under different cultural and technological conditions. As a result, there is a lack of empirical research focusing on how these determinants function in **emerging economies**, such as Indonesia, where user experience, technological familiarity, and cultural trust norms may differ. Moreover, with the evolving digital landscape, traditional constructs like PU and PEOU may no longer hold the same predictive power in explaining consumer behavior. Users today are more familiar with online platforms, and newer factors such as influencer credibility, user reviews, or platform aesthetics may play a more significant role. Yet, research rarely revisits these older models to test their continued relevance in today's e-commerce environment.

This study seeks to fill this gap by investigating the influence of **Perceived Usefulness, Perceived Ease of Use, and Trust** on **consumer intention to purchase via e-commerce platforms** in the Indonesian context. Employing a quantitative approach through survey methods and statistical analysis, the study aims to determine whether these traditional determinants still significantly impact consumer intention, or whether their influence has diminished in the current digital environment. The results are expected to contribute not only to the academic literature on consumer behavior and technology acceptance but also to provide practical implications for e-commerce businesses seeking to optimize user engagement and purchase conversion.

## Research Methodology

This study employed a **quantitative research design** with a correlational approach to examine the relationship between perceived usefulness (PU), perceived ease of use (PEOU), trust (TR), and consumer intention (CI) to purchase via e-commerce platforms. The quantitative approach was selected to allow objective measurement of relationships among variables and statistical generalization based on empirical data. A **survey method** was used as the primary data collection technique due to its efficiency in reaching a broad and diverse sample of e-commerce users.

The **population** of this study comprised individuals who had experience using e-commerce platforms in Indonesia, particularly platforms such as Shopee, Tokopedia, and Lazada. A **non-probability purposive sampling** technique was employed to ensure that all respondents had previously used e-commerce platforms and had adequate digital literacy to respond to the questions. The sample size consisted of **100 respondents**, which aligns with the minimum requirements for conducting multiple linear regression analysis, according to Hair et al. (2010).

Data were collected using a structured **online questionnaire** distributed via Google Forms. The questionnaire consisted of two main sections: the first section gathered demographic information (e.g., age, gender, frequency of online shopping), while the second section measured the study variables using established measurement scales. Each variable was assessed using multiple items adapted from previous studies. Perceived usefulness and perceived ease of use were measured using indicators from the original Technology Acceptance Model (Davis, 1989), while trust was measured based on items developed by Gefen

et al. (2003). Consumer intention was assessed through items reflecting the likelihood of purchasing on e-commerce platforms. All items were measured using a **5-point Likert scale**, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

The collected data were analyzed using **Statistical Package for the Social Sciences (SPSS)** version 26. The analysis included descriptive statistics, Pearson product-moment correlation to identify bivariate relationships among variables, and **multiple linear regression analysis** to test the influence of PU, PEOU, and TR on consumer intention. Prior to hypothesis testing, diagnostic tests such as normality, multicollinearity, and heteroscedasticity checks were performed to ensure that the regression assumptions were met. The threshold for statistical significance was set at  $p < 0.05$ , indicating that findings with a probability value below this level would be considered statistically significant.

## Research Findings

### Correlation Matrix

Table 1 presents the Pearson correlation coefficients among the four key variables: Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Trust (TR), and Consumer Intention (CI). Overall, the relationships among the variables are weak, with several showing negative associations.

Perceived Usefulness (PU) has a weak negative correlation with Consumer Intention (CI), with a coefficient of  $r = -0.170$ , indicating that an increase in perceived usefulness is slightly associated with a decrease in consumer intention. This result is contrary to the assumptions of the Technology Acceptance Model (TAM), which suggests that higher perceived usefulness should positively influence intention to use or purchase.

Perceived Ease of Use (PEOU) shows a very weak and negative correlation with Consumer Intention ( $r = -0.018$ ) and also has a weak negative correlation with PU ( $r = -0.136$ ). These results indicate minimal association between ease of use and other variables, suggesting that user-friendliness may not be a strong determinant of purchase intention among respondents in this context.

Interestingly, Trust (TR) shows **virtually no correlation** with Consumer Intention ( $r = -0.000$ ), implying that the level of consumer trust in e-commerce platforms does not significantly relate to their intention to purchase in this sample. While TR has a weak positive correlation with PU ( $r = 0.191$ ), its overall relationship with other variables is minimal.

In summary, the correlation analysis suggests that PU, PEOU, and TR are not strongly related to CI in this study, which warrants further analysis through regression to explore potential predictive power despite weak bivariate relationships.

**Table 1. The correlation matrix**

	PU	PEOU	TR	CI
PU	1.000	-0.136	0.191	-0.170
PEOU	-0.136	1.000	-0.037	-0.018
TR	0.191	-0.037	1.000	-0.000
CI	-0.170	-0.018	-0.000	1.000

### Regression Analysis

The regression analysis (Table 2) was conducted to assess the extent to which Perceived Usefulness (PU), Perceived Ease of Use (PEOU), and Trust (TR) predict Consumer Intention (CI) to purchase via e-commerce platforms. The model summary shows an R-squared value of 0.037, indicating that only 3.7% of the variance in consumer intention can be explained by the three independent variables. The adjusted R-squared value of 0.007 further suggests that the model has very limited explanatory power after adjusting for the number of predictors.

The F-statistic value of 1.228 with a p-value of 0.304 confirms that the overall regression model is not statistically significant at the 0.05 level. This means that, collectively, PU, PEOU, and TR do not significantly predict consumer intention to purchase in this study sample.

Examining the individual predictors, none of the variables show statistically significant effects on consumer intention. PU has a coefficient of -0.1865 with a p-value of 0.124, suggesting a weak and non-significant negative influence. PEOU has an even smaller coefficient of -0.0261 ( $p = 0.787$ ), and TR shows virtually no influence, with a coefficient of 0.0053 ( $p = 0.965$ ).

The constant value of 4.1496 indicates that, in the absence of the independent variables, the predicted consumer intention remains relatively high. Overall, the regression results suggest that none of the traditional TAM variables nor trust significantly influence online purchase intention in this context, indicating that other factors may be more influential.

**Table 2. Regression analysis summary**

<b>Model Summary</b>	
R-squared	0.037
Adjusted R-squared	0.007
F-statistic	1.228
Prob (F-statistic)	0.304

<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>p-value</b>
Constant	4.1496	0.509	8.155	0.000
PU	-0.1865	0.120	-1.552	0.124
PEOU	-0.0261	0.096	-0.271	0.787
TR	0.0053	0.121	0.044	0.965

## Discussion

The findings of this study reveal that Perceived Usefulness (PU), Perceived Ease of Use (PEOU), and Trust (TR) do not significantly influence consumer intention to purchase via e-commerce platforms among Indonesian users. These results stand in contrast to earlier influential studies, particularly those by Gefen et al. (2003) and Pavlou (2003), which consistently found strong positive relationships between PU and TR with online consumer behavior. According to these earlier studies, PU is one of the strongest predictors of behavioral intention within the framework of the Technology Acceptance Model (TAM), while trust was considered essential for mitigating risk in online transactions where users could not directly assess products or sellers.

However, the current study suggests a different behavioral landscape, possibly reflecting shifts in digital literacy, user expectations, and market maturity. One possible explanation for the lack of significant influence from PU and PEOU is the growing technological familiarity among Indonesian e-commerce users. In the early stages of e-commerce adoption, ease of use and usefulness were essential because users were still learning how to navigate platforms, interpret interfaces, and trust the outcomes. Today, however, online shopping has become routine for many, and these foundational perceptions may no longer serve as key differentiators. This phenomenon aligns with more recent studies (Li et al., 2021; Lim et al., 2020; Vahdat et al., 2021), which argue that once consumers reach a certain comfort level with technology, other factors such as user experience, personalized recommendations, discount offers, and social influence begin to take precedence in shaping purchase intentions.

The negligible effect of trust in this study is especially noteworthy. In traditional models of online behavior, trust has been critical due to the high degree of uncertainty and risk associated with online transactions (Gefen et al., 2003). Consumers were hesitant to provide payment information or purchase items they had

not seen in person, especially when dealing with unfamiliar sellers or platforms. However, the digital infrastructure in Indonesia has evolved significantly, with the rise of secure payment gateways, widespread availability of Cash on Delivery (COD) services, the introduction of verified sellers, and platform-level guarantees such as refunds or returns. These developments may have reduced consumers' need for personal trust, as much of the perceived risk has been absorbed by the system itself. In this context, institutional or platform-based trust replaces interpersonal or experiential trust.

Moreover, today's consumers may rely more on community-based feedback mechanisms, such as user reviews, ratings, and influencer endorsements, which serve as more immediate and tangible indicators of product reliability than abstract perceptions of trust. This shift aligns with the concept of "trust by proxy", where consumers base their decisions on the experiences and opinions of others rather than on direct interaction or brand familiarity (Kartomo, 2024).

Another perspective to consider is the increased role of emotional and experiential factors in online purchasing. Unlike earlier transactional models that emphasized rational assessment (usefulness, effort, and risk), modern e-commerce increasingly leverages emotional engagement, convenience, and entertainment. Platforms now integrate gamification, live streaming, and loyalty programs to capture attention and build long-term consumer relationships. As a result, traditional constructs like PU and TR may not fully capture the complexity of online shopping motivations in the current digital environment.

The insignificance of PEOU also warrants attention. Originally considered a crucial determinant of system adoption, ease of use may now be taken for granted by consumers familiar with digital interfaces (Saleh, Saleh, & Saleh, 2020). Most major e-commerce platforms have standardized their interfaces to be mobile-friendly, visually consistent, and intuitively navigable. In such an environment, variation in ease of use across platforms is minimal, leading users to base their intentions on other experiential or value-based criteria, such as promotions, speed of delivery, or product variety.

Furthermore, demographic and behavioral characteristics of the study's respondents could have influenced the results. For instance, if most respondents were younger, digitally native individuals, they may have viewed PU and PEOU as baseline expectations rather than deciding factors. Similarly, those who frequently use e-commerce platforms may have developed a level of habitual behavior that bypasses the traditional decision-making processes outlined in TAM. In this case, habit and convenience may play a more dominant role than deliberate evaluations of usefulness or trust.

Overall, the findings suggest the need to revisit and possibly update traditional acceptance models such as TAM when applied to mature digital markets. Researchers and practitioners should consider incorporating new variables, such as platform engagement, influencer marketing, perceived enjoyment, or even sustainability concerns, into models that aim to explain consumer behavior in contemporary online environments. Additionally, future research might benefit from exploring moderating variables, such as age, frequency of e-commerce use, or platform loyalty, to gain deeper insight into how and when these classical constructs retain relevance.

In short, while PU, PEOU, and TR have historically been vital to understanding technology adoption and online consumer behavior, their influence may be diminishing in rapidly maturing digital ecosystems like Indonesia's. This shift calls for an evolution in theoretical frameworks and marketing strategies to better align with today's consumer expectations and behaviors.

## **Conclusion**

This study explored the determinants of consumer intention to purchase via e-commerce platforms using a quantitative approach. While Perceived Usefulness, Perceived Ease of Use, and Trust have been widely regarded as influential in past literature, this research found no significant effect of these variables on consumer intention in the Indonesian context. These findings suggest a need to revisit classical models like



TAM in favor of more contemporary frameworks that include contextual variables such as **user-generated content, influencer endorsement, and platform engagement**.

**Future research** should explore these additional variables and utilize larger, more diverse samples to enhance generalizability.

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