



Research article

## The role of demographics to actual purchase decision in online shopping

Dina Safitri<sup>1\*</sup>, Nuzul Inas Nabila<sup>2</sup>, Aida Sari<sup>3</sup>, Mudji Rahmat Ramelan<sup>4</sup>

### ABSTRACT

This study looks at the factors that influence Indonesian customers' online buying behavior, with a focus on demographics like gender, age, occupation, income, and trust. Using a novel technique that treats demographics as independent variables, the study investigates their differential effects on actual purchases made using bank cards and cash-on-delivery (COD). According to hierarchical regression research, gender has a substantial influence on both bank card and COD purchases, with females having a lower propensity for online transactions. Age was not found to be a significant predictor of bank card purchases, but occupation had a positive relationship with COD transactions, showing that those in higher-status occupations are more inclined to use COD. Income did not significantly predict either manner of purchasing, and trust had only a minor impact on bank card transactions. The study emphasizes the importance of demographic considerations in understanding online shopping behavior, with implications for policymakers, industry practitioners, and academics looking to support long-term growth in Indonesia's e-commerce ecosystem.

**Keywords:** Customer behavior, online shopping, trust, digital marketplace, marketing

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### Corresponding author:

Dina Safitri, Email: [dina.safitri@pte.hu](mailto:dina.safitri@pte.hu)

*Faculty of Business and Economics, University of Pécs, Pécs, Hungary*

Extended author information available on the last page of the article



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**Abstrak**

Penelitian ini menginvestigasi faktor-faktor yang memengaruhi perilaku belanja online pelanggan Indonesia, dengan fokus pada demografi seperti jenis kelamin, usia, pekerjaan, pendapatan, dan kepercayaan. Dengan menggunakan pendekatan baru yang memperlakukan demografi sebagai variabel independen, studi ini menyelidiki efek diferensial mereka terhadap pembelian aktual yang dilakukan menggunakan kartu bank dan pembayaran tunai saat pengiriman (COD). Melalui analisis regresi hirarkis, ditemukan bahwa jenis kelamin secara signifikan memengaruhi pembelian baik dengan kartu bank maupun COD, dengan perempuan memiliki kecenderungan yang lebih rendah untuk transaksi online. Usia tidak ditemukan sebagai prediktor yang signifikan dalam pembelian dengan kartu bank, namun pekerjaan memiliki hubungan positif dengan transaksi COD, menunjukkan bahwa mereka yang memiliki pekerjaan dengan status yang lebih tinggi cenderung lebih memilih COD. Pendapatan tidak secara signifikan memprediksi kedua cara pembelian tersebut, dan kepercayaan hanya memiliki dampak minor pada transaksi kartu bank. Studi ini menekankan pentingnya pertimbangan demografi dalam memahami perilaku belanja online, dengan implikasi bagi pembuat kebijakan, praktisi industri, dan akademisi yang ingin mendukung pertumbuhan jangka panjang dalam ekosistem e-commerce Indonesia.

**Kata Kunci:** Perilaku konsumen, belanja online, kepercayaan, pasar digital, pemasaran

## 1. Introduction

The exponential growth of online shopping has irrevocably transformed consumer behavior worldwide (Junejo, 2023; Che nawi et al., 2019). With developing countries increasingly embracing this trend as a cornerstone of economic growth and modernization (C.B. & Onuodu, 2021), the transition from traditional retail to online shopping channels has occurred throughout the industrial period 4.0. This shift is mostly due to the advancements in digital technology and the ease of access to international markets. Sisca et al., (2022) acclaimed that numerous research endeavors have been carried out to examine the impact of customer demographic attributes, including but not limited to gender, age, and career, on the decisions made by consumers about in-store or online shopping, yielding noteworthy findings.

Indonesia stands out as a burgeoning market for e-commerce, yet there exists a paucity of documented evidence regarding the intricate interplay between demographic factors and online purchase behaviors within this context. While existing research predominantly focuses on purchase intention (Leppäniemi & Karjaluoto, 2008; Hanaysha, 2018; Yu, 2023) and decision-making processes (Helmi et al., 2023) there remains a conspicuous gap in understanding how demographics influence actual purchase in Indonesia's evolving e-commerce landscape.

To bridge this gap, this research endeavors to offer a comprehensive analysis of the demographic determinants of online purchasing behaviors in Indonesia, employing actual purchase data as the primary research focus. The interest in online shopping among Indonesian consumers underscores the necessity of addressing this research gap. With a rapidly expanding digital infrastructure and a youthful demographic profile, Indonesia presents a fertile ground for exploring the nuanced dynamics of online consumer behavior. However, the absence of empirical studies examining the specific role of demographics in shaping purchasing behavior limits our ability to develop targeted strategies to enhance e-commerce efficacy and foster sustainable growth.

This research adopts a unique approach by considering demographics as independent variables rather than mere moderators, aiming to uncover the underlying mechanisms influencing online shopping behavior among Indonesian consumers. Through rigorous empirical analysis, this study aims to explore the differential impact of demographic characteristics on

actual purchase behavior, specifically focusing on transactions made through bank card and cash-on-delivery (COD) methods. Given the transformative potential of e-commerce in Indonesia and the limited empirical evidence available, this research holds significant implications for policymakers, industry practitioners, and academics. By offering a nuanced understanding of the demographic drivers of online shopping behavior, this study seeks to provide insights that can inform targeted interventions and support sustainable growth in Indonesia's e-commerce ecosystem.

## **2. Theoretical background**

### **Online purchase behavior and the process of consumer decision-making**

Online shopping behavior refers to all of the actions, attitudes, and decisions that customers make when purchasing online. Consumer behavior studies focus on understanding how individuals utilize their resources, such as time, money, and effort, to acquire products or services (Hanaysha, 2017). The decision-making process is an important aspect of this behavior since it details the steps customers take between detecting a need or desire for a product and making a purchase (Sari et al., 2021). The process of consumer decision-making involves various stages that individuals go through before making a final purchase choice (Zhang & Curley, 2018). Decision-making, which involves selecting between two or more options for products or services, is one of the most challenging cognitive tasks that humans encounter. This stage is a purchase choice that refers to the actions of the consumer and a pattern that establishes and follows a procedure for making decisions (Helmi et al., 2023). When considering a purchase, customers gather information to aid their decision-making process. Research in e-commerce has highlighted the significant impact of various factors on consumer purchase decisions, including aspects related to the merchant, product, and individual preferences (X. Chen et al., 2017). Marketers need to consider the entire purchasing process rather than solely focusing on the purchase decision, as consumers undergo different phases before reaching a conclusion (Hanaysha, 2017).

### **Trust**

Before making an actual purchase, customers consider multiple factors, all of which are included in the online purchase behavior. Purchase intention encompasses motivational factors that guide behavior, indicating the extent to which individuals engage in a particular action. Therefore, purchase intention serves as a prerequisite for the purchase decision, distinct from it according to consumer behavior theory (Hassan et al., 2021). Yang et al., (2017) suggests that factors such as security/privacy risks, and mobility affect the adoption of social commerce as well as trust in service suppliers. Sari et al., (2022) note that online transactions often occur between unknown parties, emphasizing the importance of building mutual trust in such interactions, and significantly influences the adoption of e-services. Zhang et al. (2018) explain that consumer empowerment influences perceived trust and satisfaction with shopping practices and buying intentions. (Maqableh & Mohammad, 2012) strengthened the perceived trust lead to the actual purchases in online shopping platform by used payment with cards and cash-on-delivery.

The phenomenon of online shopping has witnessed exponential growth, reshaping consumer behavior globally. As highlighted by Indiani & Fahik (2020), the increasing popularity of online shopping has become a prominent aspect of contemporary commerce. However, despite this surge in online transactions, there remains a notable discrepancy between the intention to purchase and the actual completion of transactions. This discrepancy underscores the complexity of consumer decision-making in the online shopping environment.

### **Actual purchase**

Building upon this understanding, researchers have endeavored to explore the intricate dynamics of purchase intentions and decision-making processes in online shopping. Sisca et al. (2022) shed light on the multifaceted nature of purchase intentions, revealing how demographic factors such as gender, age, marital status, education, and occupation can significantly influence consumers' predisposition to make purchases intention. Leppäniemi & Karjaluoto (2008) found that female tends to shop and have more attitudes than male. Junejo (2023) delves deeper into the role of demographics in purchase decision-making, uncovering how factors like age and occupation impact the decision-making processes of specific demographic groups, such as female younger age groups and students. Similarly, Kara et al. (2017) elucidates the nuances of purchase decision-making among older age groups with stable incomes, highlighting the importance of factors like accessibility, ease of use, and perceived safety during the decision-making process.

Despite the wealth of research on purchase intentions and decision-making processes, there remains a gap in understanding the final stage of the purchase journey – the actual purchase, by the influence of trust and demographics combined. This gap is particularly salient in the context of online shopping, where the completion of transactions represents the culmination of the decision-making process. Recognizing this gap, the present research seeks to address the dearth of empirical studies that delve into the actual purchases made by consumers as the final step in the decision-making process.

By focusing on actual purchase behavior, this research aims to provide insights into the factors that influence consumers' ultimate decision to proceed with a purchase. By bridging this gap in the literature, the study aims to contribute to a more comprehensive understanding of consumer behavior in the online shopping domain. Through empirical analysis of actual purchase data, the research aims to uncover the drivers and determinants of online purchase behavior, shedding light on the factors that influence consumers' final decisions to make a purchase. In doing so, the study endeavors to provide valuable insights for marketers, policymakers, and academics seeking to enhance their understanding of consumer behavior in the digital age.

### **3. Methods**

The researcher opted to conduct a cross-sectional survey on a single marketplace, Shopee, due to constraints in time and available information. The sampling approach employed was non-probability sampling, specifically convenience sampling, where respondents were chosen based on the researcher's judgment rather than random selection. Each respondent was selected based on predefined population criteria, without an equal chance of being sampled. The researcher assessed potential respondents based on their knowledge and perspective, deeming them suitable for inclusion in the study. The survey in trust variable used 5 question items, the actual purchase by bank-card variable consists of four question items. Actual purchase cash-on-delivery adopted the four questionnaire item questions. The three variables were adapted from Maqlubeh et al., (2015). The variables used 5-scale Likert. Ultimately, the sample comprised 249 online shoppers on Shopee. The data was analyzed by using Multi-regression Analysis (MRA) with statistic tools IBM SPSS version 29.0 for Windows.

The validation test of analysis factor to all variables resulted to one item of trust, question 3 was not valid, thus removed from further analysis. The Cronbach's alpha reliability analysis shows that trust = 0.791, actual purchase with bank-card = 0.955, and actual purchase cash-on-delivery = 0.964. The analysis also met assumption of multicollinearity given that tolerance ranges from 0.517 to 1.00 while the value inflation factor ranges from 1.00 to 1.935, indicating that multicollinearity is not a problem in this study.

Multiple regression analysis (MRA) hierarchical was utilized as a tool to delve into the theoretical and conceptual understanding derived from the study. Consequently, MRA was employed to investigate the connections between different type of actual purchases and demographic factors such as age, gender, income, and occupation. Five standard multiple regression models were employed to assess the predictive capability of a set of variables regarding specific outcomes. These techniques facilitated the identification of variables exhibiting a significant linear relationship with dependent variables, as well as an examination of the correlation between one dependent variable (actual purchases) and several independent variables (demographics). This examination aimed to evaluate whether the inclusion of additional variables enhanced the relationship beyond those already present in the regression model (Yesufu, 2019).

#### 4. Results and implications

Table 1 presents the demographic characteristics of the study sample, highlighting the distribution of participants by sex, age, occupation, and income. The sample consists of 248 participants, with 78 males (31.45%) and 170 females (68.55%), indicating a higher participation rate among females. The largest age group is 18-30 years old, comprising 194 participants (78.23%), followed by 21 participants aged 40-50 years (8.47%), 18 participants older than 50 years (7.25%), and 15 participants aged 30-40 years (6.05%). This data suggests that the majority of participants are relatively young. In terms of occupation, students form the largest group with 147 participants (59.27%), followed by 47 civil servants (18.95%), 43 private-company employees (17.34%), and 11 state-owned enterprise employees (4.44%), showing a predominant student population in the sample.

Table 1. The demographic respondents

| Type of Characteristic | Characteristic                   | Total | Percentage |
|------------------------|----------------------------------|-------|------------|
| <b>Sex</b>             | Male                             | 78    | 31,45%     |
|                        | Female                           | 170   | 68,55%     |
| <b>Age</b>             | 18 – 30 years old                | 194   | 78,23%     |
|                        | 30 – 40 years old                | 15    | 6,05%      |
|                        | 40 – 50 years old                | 21    | 8,47%      |
|                        | > 50 years old                   | 18    | 7,25%      |
| <b>Occupation</b>      | Students                         | 147   | 59,27%     |
|                        | Private-Company Employees        | 43    | 17,34%     |
|                        | Civil Servants                   | 47    | 18,95%     |
|                        | State-owned Enterprise Employees | 11    | 4,44%      |
| <b>Income</b>          | < Rp. 3.000.000                  | 173   | 69,35%     |
|                        | Rp3.000.000 – Rp6.000.000        | 50    | 20,16%     |
|                        | Rp6.000.000 – Rp9.000.000        | 15    | 6,05%      |
|                        | > Rp9.000.000                    | 11    | 4,44%      |

Source: Research data

Regarding income, 173 participants (69.35%) have an income of less than Rp. 3,000,000, 50 participants (20.16%) fall within the Rp. 3,000,000 to Rp. 6,000,000 range, 15 participants (6.05%) earn between Rp. 6,000,000 and Rp. 9,000,000, and 11 participants (4.44%) have an income exceeding Rp. 9,000,000. The income data reveals that most participants have relatively lower income levels, with a significant portion earning less than Rp. 3,000,000.

## Hypothesis testing

The result of the hierarchical regression for actual purchase using bank card shows that inclusion of gender accounted 6.6% variance in actual purchase by bank-card,  $R^2 = 0.066$ ,  $\Delta R^2 = 0.066$ ,  $F(1, 230) = 16.169$ ,  $P \leq 0.001$ , and the analysis shows a significant effect of gender ( $\beta = -0.256$ ,  $CI = -1.023, -0.350$ ,  $P \leq 0.001$ ). It is suggesting that the percentage of actual bank card purchases made by women is lower than that of men. This implies that compared to men, women are often less likely to use bank cards for actual purchases.

The inclusion of age into the Model 2, added additional 6.6% variance in actual purchase by bank-card,  $R^2 = 0.066$ ,  $\Delta R^2 = 0.000$ ,  $F(1, 229) = .098$ ,  $P = 0.754$ , and the analysis shows a non-significant effect of age ( $\beta = -0.020$ ,  $CI = -0.226, 0.164$ ,  $P = 0.754$ ). It shows that there is a negative association between age and actual purchase using bank-card. This implies that on average, older people prefer to use bank cards for fewer actual purchases than younger people.

Model 3 that shows the inclusion of occupation with  $R^2 = 0.067$ ,  $\Delta R^2 = 0.001$ ,  $F(1, 228) = 0.303$ ,  $P = 0.583$ , and shows that a non-significant effect of occupation ( $\beta = -0.013$ ,  $CI = -0.164, 0.291$ ,  $P = 0.583$ ). The regression model shows that occupation and actual purchase by bank-card may have a positive link, but this relationship is not statistically significant. As a result, in this analysis, occupation does not significantly predict actual purchase using bank card.

The inclusion of income into Model 4 shows that  $R^2 = 0.068$ ,  $\Delta R^2 = 0.000$ ,  $F(1, 227) = 0.057$ ,  $P = 0.811$ . There is no significant relationship between income and actual purchase by bank card with value of  $\beta = -0.021$ ,  $CI = -0.329, 0.258$ ,  $P = 0.811$ . Similarly, Model 5 for trust inclusion show the value  $R^2 = 0.083$ ,  $\Delta R^2 = 0.015$ ,  $F(1, 226) = 0.057$ ,  $P = 0.055$ . Since corresponding P value 0.055 of trust is slightly above threshold 0.050, trust is marginally significant in predicting actual purchase by bank card.

The result of the hierarchical regression for actual purchase using cash-on-delivery shows inclusion of gender accounted 3.9% variance in actual purchase cash-on-delivery,  $R^2 = 0.039$ ,  $\Delta R^2 = 0.039$ ,  $F(1, 230) = 9.240$ ,  $P = 0.003$ , and the analysis shows a significant effect of gender ( $\beta = -0.197$ ,  $CI = -0.935, -0.200$ ,  $P = 0.003$ ). It suggests that, on average, female gender is associated with a decrease of 0.568 units in the actual purchase using cash-on-delivery outcome compared to male gender. This effect is statistically significant (Sig. = 0.003), indicating that gender has a significant impact on actual purchases made via cash on delivery.

MRA for age towards actual purchase of cash-on-delivery results to  $R^2 = 0.040$ ,  $\Delta R^2 = 0.001$ ,  $F(1, 229) = 0.324$ ,  $P = 0.570$ , and the analysis shows a non-significant effect of age ( $\beta = -0.037$ ,  $CI = -0.274, 0.151$ ,  $P = 0.002$ ). This shows that age is not a statistically significant predictor of real purchase cash on delivery in this model. The coefficient's proximity to 0 indicates that there is almost no relationship between age and actual purchase cash on delivery. As a result of findings, any relevant conclusions about the association between age and actual cash on delivery cannot be drawn.

Table 2 Result of regression analysis for actual purchase using bank card

| Model | Independent variable | Model 1 |       | Model 2  |       | Model 3 |       | Model 4 |       | Model 5 |       | VIF   |
|-------|----------------------|---------|-------|----------|-------|---------|-------|---------|-------|---------|-------|-------|
|       |                      | $\beta$ | SE    | $\beta$  | SE    | $\beta$ | SE    | $\beta$ | SE    | $\beta$ | SE    |       |
|       | Gender               | -0.256  | 0.171 | -0.256** | 0.171 | -0.255  | 0.171 | -0.257  | 0.173 | -0.243  | 0.173 | 1.000 |
|       | Age                  |         |       | -0.020   | 0.099 | -0.013  | 0.101 | 0.001   | 0.137 | 0.019   | 0.137 | 1.000 |
|       | Occupation           |         |       |          |       | 0.036   | 0.115 | 0.042   | 0.124 | 0.032   | 0.124 | 1.037 |
|       | Income               |         |       |          |       |         |       | -0.021  | 0.149 | -0.025  | 0.148 | 1.904 |
|       | Trust                |         |       |          |       |         |       |         |       | 0.126   | 0.133 | 1.043 |

Source: SPSS and author work. Note: N=249 participants. Regression effect is significant at the 0.05 level (2-tailed).

\*\*Regression effect is significant at the 0.01 level (2-tailed).



The inclusion of occupation,  $R^2 = 0.078$ ,  $\Delta R^2 = 0.038$ ,  $F(1, 228) = 9.505$ ,  $P = 0.002$ , and the analysis shows a significant effect of occupation ( $\beta = 0.200$ ,  $CI = 0.138, 0.625$ ,  $P = 0.002$ ). This implies that occupation is a statistically significant predictor of real purchase cash on delivery in this model. The positive correlation shows that, on average, people with greater occupational status are more likely to make genuine purchases with cash on delivery. This association is further corroborated by the coefficient's 95% confidence interval, which spans from 0.138 to 0.625. As a result, those in higher-status occupations are more likely than those in lower-status occupations to engage in actual cash on delivery transactions. In this case, the shopper with student status is likely make less actual purchase cash-on-delivery.

The results for income inclusion,  $R^2 = 0.079$ ,  $\Delta R^2 = 0.001$ ,  $F(1, 227) = 0.260$ ,  $P = 0.611$ , and the analysis shows a significant effect of income ( $\beta = -0.045$ ,  $CI = -0.396, 0.233$ ,  $P = 0.611$ ). This suggests that income is not a statistically significant predictor of actual cash on delivery in this model. The negative coefficient indicates that as income rises, the likelihood of making actual purchases utilizing cash on delivery falls slightly, but this link is not statistically significant. The coefficient's 95% confidence interval extends from -0.396 to 0.233, which supports the lack of statistical significance. According to the findings, income does not appear to have a significant impact on actual buy cash on delivery behavior.

The results for trust inclusion,  $R^2 = 0.093$ ,  $\Delta R^2 = 0.013$ ,  $F(1, 226) = 0.2603.293$ ,  $P = 0.071$ , and the analysis shows a significant effect of trust ( $\beta = 0.117$ ,  $CI = -0.022, 0.539$ ,  $P = 0.071$ ). This suggests that trust has a beneficial effect on real purchase cash on delivery, although the link is not statistically significant at the standard significance threshold of 0.05. However, the p-value is close to 0.05, indicating a possible trend toward significance. The positive coefficient indicates that as trust grows, there is a tiny rise in the possibility of making actual transactions with cash on delivery.

The study's findings shed light on the factors impacting Indonesian consumers' online purchasing behavior, notably in terms of actual purchases made with bank cards and cash-on-delivery (COD). Gender has a strong negative effect on both types of transactions, implying that gender influences payment choices in the Indonesian e-commerce scene. Women, on average, were found to be less likely than men to use bank cards or conduct cash-on-delivery transactions. This finding is consistent with previous research showing that gender differences influence consumer behavior, with women frequently exhibiting more cautious spending patterns and preferring alternative payment options such as cash (Jiang et al., 2013).

Interestingly, age was not a significant predictor in the model for actual bank card purchases, but it did show a non-significant negative correlation, indicating that older people use bank cards less frequently for online purchases. This finding could be due to age disparities in digital adoption and trust in online payment systems. Younger generations, who are more digitally adept and used to online purchasing, may be more comfortable using bank cards for transactions than elderly people, who may be concerned about security and privacy.

Table 3. Result of regression analysis for actual purchase using cash-on-delivery

| Model | Independent variable | Model 1 |       | Model 2 |       | Model 3 |       | Model 4 |       | Model 5 |       | VIF  |
|-------|----------------------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|------|
|       |                      | Beta    | SE    | Beta    | SE    | Beta    | SE    | Beta    | SE    | Beta    | SE    |      |
|       | Gender               | -0.197  | 0.187 | -0.196  | 0.187 | -0.191  | 0.184 | -0.194  | 0.185 | -0.181  | 0.185 | 1.00 |
|       | Age                  |         |       | -0.037  | 0.108 | 0.000   | 0.108 | 0.031   | 0.147 | 0.048   | 0.147 | 1.00 |
|       | Occupation           |         |       |         |       | 0.200   | 0.124 | 0.212   | 0.133 | 0.203   | 0.203 | 1.04 |
|       | Income               |         |       |         |       |         |       | -0.045  | 0.160 | -0.048  | 0.159 | 1.90 |
|       | Trust                |         |       |         |       |         |       |         |       | 0.117   | 0.142 | 1.04 |

Source: SPSS and author work. Source: SPSS and author work. Note: N=249 participants. Regression effect is significant at the 0.05 level (2-tailed). \*Regression effect is significant at the 0.01 level (2-tailed).

Occupation was found to be a strong predictor of actual cash-on-delivery purchases, with people in higher-status occupations being more likely to engage in such transactions. This conclusion implies that occupation shapes payment choices, which may be influenced by characteristics such as income level, faith in online payment systems, and lifestyle preferences. Individuals in management or professional employment, for example, may value convenience and efficiency in their shopping experience, resulting in a preference for cash-on-delivery as a payment method.

While income and trust did not significantly predict real purchases in either model, the marginally significant effect of trust on actual purchases made with bank cards implies that trust may play a subtle but crucial role in influencing online purchasing behavior. Trust in online payment systems, security measures, and seller reputation are all important elements that influence customers' propensity to utilize bank cards for online purchases (Kim et al., 2020). As a result, initiatives to increase trust in e-commerce platforms and payment gateways may stimulate higher usage of online payment methods among Indonesian customers.

The findings highlight the complicated interplay of demographic characteristics, trust, and payment preferences in driving online purchasing behavior in Indonesia. This study contributes to a better understanding of the factors influencing e-commerce adoption by providing insights into the underlying mechanisms driving consumer decisions. Its implications for policymakers, industry practitioners, and academics seeking to foster sustainable growth in Indonesia's e-commerce ecosystem are significant.

### **Practical implications**

The findings from this study provide valuable insights for e-commerce businesses, policymakers, and industry practitioners aiming to enhance the adoption and effectiveness of online payment methods in Indonesia. Gender-specific campaigns addressing the concerns and preferences of female shoppers, such as emphasizing security features and personalized payment options, could encourage more women to use bank cards or cash-on-delivery (COD). Age-based strategies should focus on older customers, offering user-friendly interfaces and educational campaigns to build trust in digital payment systems (Sisca et al., 2022). Strengthening security measures and transparent communication about these measures can enhance consumer confidence in using bank cards (Sari et al., 2022).

For individuals in higher-status occupations who prefer COD, streamlining the COD process and offering flexible delivery options can improve their shopping experience, while student-friendly initiatives like discounts and easy payment plans can cater to their financial constraints (Chen et al., 2017). Policymakers should promote digital literacy across age groups and incentivize secure payment adoption through tax benefits and public awareness campaigns. Offering a variety of affordable payment options, such as installment plans and prepaid cards, can accommodate different income levels, and building trust among lower-income consumers through guarantees and easy return policies can alleviate their concerns. Implementing trust-building programs like seller verification and buyer protection can indirectly boost bank card usage (Sari et al., 2022). By addressing these implications, e-commerce businesses and policymakers can foster a more inclusive and robust e-commerce ecosystem in Indonesia, overcoming barriers to online payment adoption, enhancing consumer trust, and driving sustainable growth in the sector.

## **5. Conclusion**

This study gives useful insights into Indonesian customers' online buying behavior, specifically the factors impacting real purchases made with both bank cards and cash-on-delivery options. The findings highlight the importance of gender in affecting purchase decisions, with women being less likely to use bank cards and cash-on-delivery than males. While age, occupation,



income, and trust were identified as potential predictors, their impact varied, with occupation having the strongest correlation with cash-on-delivery sales. However, it is critical to realize our study's limitations, which include its concentration on a single shopping platform and the relatively short period of data collecting. Despite these limitations, the findings add to a better knowledge of e-commerce dynamics in Indonesia and highlight the need for more research into the varied nature of online consumer behavior.

The study on Indonesian consumers' internet buying behavior includes some limitations that should be acknowledged. First, the conclusions are based on data from a single online shopping site, which may limit their applicability to other platforms or retail scenarios. Furthermore, the very short data collection period of two and a half months may have missed seasonal fluctuations or long-term trends in consumer behavior. Furthermore, the study concentrated on demographic parameters and trust as predictors, leaving out other potentially significant variables. The reliance on self-reported data increases the risk of response bias. Despite these limitations, the study offers useful insights and establishes the groundwork for future research in this field.

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### Additional information

#### Authors and Affiliations

Department of Business and Administration, Faculty of Business and Economics, University of Pécs, Hungary

#### Dina Safitri

Management, Economics and Business Faculty, Universitas Lampung, Bandar Lampung, Indonesia

**Nuzul Inas Nabila, Aida Sari. Mudji Rahmat Ramelan**

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