# Mindfulness as The Predictor of Online Impulsive Buying Tendency in Indonesian Early Adulthood

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## Abstract

**Background:** Online shopping attracts early adults (ages 20-39) due to price, convenience, time efficiency, etc, who are trying to regulate their shopping activities, and mindfulness is one approach can help individuals be aware of shopping behavior, avoiding impulsive buying. **Objective**: This study aims to examine whether mindfulness can significantly predict online impulsive buying tendency in early adults by using simple linear regression analysis, with early adults respondents (ages 20-39). **Method**: Research is using quantitative correlational design, and Pearson Correlation is used for analysis. Data (n=487) were collected using convenience sampling through online questionnaire containing Mindfulness Attention and Awareness Scale (MAAS-15) and Impulsive Buying Tendency Scale in the online shopping context (IBTS-20). **Result**: The results of the statistical analysis indicate mindfulness significantly and negatively predict online impulsive buying tendency in early adults. Additional analysis reveals a difference in the levels of females and males online impulsive buying tendency, with females scoring higher than males. **Conclusion**: Mindfulness predicts online impulsive buying tendency. **Suggestion**: Future research is suggested to explore other factors influence online impulsive buying tendency.

**Keywords**: Early adult; mindfulness; online impulsive buying tendency.

## Abstrak

**Latar Belakang:** Belanja online menarik perhatian dewasa awal (usia 20-39 tahun) karena faktor harga, kenyamanan, efisiensi waktu, dan lainnya. Mereka berusaha mengatur aktivitas belanja, dan mindfulness menjadi contoh pendekatan yang dapat membantu menyadari perilaku belanja mereka serta menghindari pembelian impulsif. **Tujuan:** Penelitian ini bertujuan untuk menguji apakah mindfulness dapat memprediksi kecenderungan pembelian impulsif online secara signifikan pada dewasa awal. Penelitian ini menggunakan metode kuantitatif dengan analisis regresi linier sederhana, dengan responden dewasa awal (usia 20-39 tahun). **Metode:** Penelitian ini menggunakan desain kuantitatif korelasional, dan analisis dilakukan dengan menggunakan Korelasi Pearson. Data (n=487) dikumpulkan menggunakan metode convenience sampling melalui kuesioner online berisi Mindfulness Attention and Awareness Scale (MAAS-15) dan Impulsive Buying Tendency Scale dalam konteks belanja online (IBTS-20). **Hasil:** Hasil analisis statistik menjelaskan mindfulness dapat secara signifikan dan negatif memprediksi kecenderungan pembelian impulsif online pada dewasa awal. Analisis tambahan menunjukkan perbedaan tingkat kecenderungan pembelian impulsif online antara perempuan dan laki-laki, dengan skor lebih tinggi pada perempuan. Kesimpulan: Mindfulness memprediksi pembelian impulsif online **Saran**: Penelitian selanjutnya disarankan untuk mengeksplorasi faktor-faktor lain yang mempengaruhi kecenderungan pembelian impulsif online.

**Kata Kunci**: Dewasa awal; kecenderungan pembelian impulsif online; *mindfulness*.

## Introduction

Advancements in technology and the internet have significantly facilitated Indonesian online shopping platforms like Shopee, Tokopedia, etc (Badan Pusat Statistik, 2022). Online shopping in Indonesia is predominantly carried out by emerging adults. Research by Kredivo and the Katadata Insights Center (KIC) from 2020 to 2022 indicates that the majority of e-commerce consumers fall within 18-35 years old (Annur, 2023). Emerging adulthood, typically ranging from 20 to 39 years of age, is marked by a transition from financial dependence on parents to managing one's financial needs (Santrock, 2019). This phase often involves economic challenges, such as balancing income and expenses. To save money, emerging adults tend to seek low-cost options when shopping (Mokhtara et al., 2020).

The preference for online shopping among emerging adults stems from factors such as affordability and convenience, which allow consumers to purchase goods and compare them at any time and location, supported by discounts and promotions (Chakraborty, 2024; Mokhtara et al., 2020). Moreover, pay-later options allow consumers to acquire goods without immediate financial constraints, further enhancing accessibility (Lia & Natswa, 2021).

Despite the numerous benefits of online shopping, consumers, particularly emerging adults, must be cautious about impulsive buying behavior. Impulsive buying refers to unplanned purchasing behavior driven by emotional and desire-driven urges (Verplanken & Herabadi, 2001). These emotional impulses often create an immediate desire to purchase a product, leading individuals to overlook potential negative consequences (Verplanken & Herabadi, 2001). The tendency toward impulsive buying is influenced by factors such as product presentation, marketing environment, pricing, and individual circumstances such as time and financial availability (Verplanken & Herabadi, 2001).

In the context of online shopping, the convenience, affordability, discounts, and time and cost efficiency offered by e-commerce platforms can elicit positive emotions and purchasing urges, even when consumers do not initially plan to buy anything (Mokhtara et al., 2020). For instance, visually appealing product displays or price reductions often generate positive feelings, including excitement, joy, and comfort, which may drive emerging adults to make purchases (Rook & Gardner, 1993; Verplanken & Herabadi, 2001).

The convenience of shopping can trigger purchases that are often not based on necessity, but rather on momentary desires or impulses. A person may shop because of actual needs and the motivation behind the shopping itself. Needs and motivation influence what consumers perceive as important and affect their feelings and emotions. Feelings and emotions are influenced by patterns of human thought, which in turn can be related to an individual's mindfulness. Mindfulness plays a crucial role in online shopping activities because if a person is not fully aware of their purchases, their shopping behavior becomes automatic rather than driven by genuine needs. When shopping behavior becomes automatic, it leads individuals to engage in impulsive buying (Lesmana, 2017; Salisa et al., 2022).

Additionally, emerging adults often buy products that represent their identity or how they wish to be perceived in their social environment (Croes & Bartels, 2021; Jacobsen & Ganim Barnes, 2017; Pradipto et al., 2016). Social settings play a crucial role in this life stage (Santrock, 2019). For example, they may purchase items popular with friends or endorsed by influencers on social media (Croes & Bartels, 2021). Verplanken and Herabadi (2001) argue that buying motives are tied to individual characteristics, with impulsive buying often seen as a form of self-expression.

This is despite the drawbacks of impulsive buying, such as financial strain and post-purchase guilt (Handayani et al., 2018; Pradipto et al., 2016). Studies show that 63% of emerging adults aged 18–35 continue to prefer online shopping, highlighting its appeal despite the risks (Mokhtara et al., 2020). Positive emotions felt during shopping, such as happiness and satisfaction from acquiring desired items, are associated with impulsive buying as a means of self-reward or mood enhancement (Verplanken & Herabadi, 2001). However, unchecked impulsive buying may evolve into compulsive buying behavior, in which consumers repeatedly shop to maintain positive emotions (Park & Dhandra, 2017; Pradipto et al., 2016).

Given the numerous triggers for impulsive online buying and its potential negative impacts, emerging adults need strategies to mitigate such tendencies, with mindfulness being a key approach. Iyer et al. (2020) identify a lack of emotional, cognitive, and behavioral awareness as a significant factor in impulsive buying behavior. Mindfulness, defined by Brown et al. (2007) as receptive attention focused on present experiences, encompasses both internal states, such as thoughts and emotions, and external stimuli, such as the environment. By fostering awareness of current thoughts and emotions, mindfulness prevents individuals from acting on autopilots (Brown et al., 2007). Moreover, mindfulness correlates with emotional stability, healthy self-esteem, and reduced impulsivity (Olarza et al., 2024; Sermboonsang et al., 2020).

In online shopping, mindfulness helps emerging adults manage emotional responses, both positive and negative, associated with purchasing (Park & Dhandra, 2017). Then, by staying focused and aware, mindful consumers are less likely to be influenced by external stimuli, such as promotions or trends that trigger impulsive buying.

In Indonesia, studies on the relationship between mindfulness and impulsive online buying remain scarce. Existing research has been limited to specific contexts, such as studies during the COVID-19 pandemic in Aceh, which reported a significant negative correlation (-0.365) between mindfulness and impulsive online buying (Salisa et al., 2022). Similar studies focusing on female adolescents (Lesmana, 2017) or specific e-commerce platforms such as Shopee (Dyatmika et al., 2023) also reported significant negative correlations (-0.235 and -0.893, respectively).

This study seeks to address the gaps in previous research by examining a broader scope, including emerging adults of all genders across Indonesia, and investigating the relationship between mindfulness and impulsive online buying tendencies. The hypothesis posits that mindfulness significantly and negatively predicts impulsive online buying tendencies among emerging adults in Indonesia.

## Method

This study employed a quantitative research approach with a correlational research design. This sampling technique was chosen because it is time-efficient to only select participants who are willing to participate voluntarily (Creswell, 2012), and due to the limitations of participant access to reach a certain area. To control for validity, the researcher ensured that participants met criteria (ages 20-39 and previous online shopping experience) by asking for demographic information and confirming their eligibility. Data from participants outside the criteria were excluded. The research also gathered additional demographic information, such as residence, gender, occupation, and product types purchased online, to provide more insight into the participants' backgrounds.

The sample of 487 participants is representative of early adults who shop online, meeting the sample size requirements for populations of over 10,000 (Bartlett et al., 2001). The study ensured participant anonymity, and informed consent was obtained. To minimize bias in convenience sampling, researchers set clear selection criteria and tried to enlarge the sample population and sample diversity as widely as possible. However, researchers acknowledge the limitations of convenience sampling.

Data were collected using a form that included all questions from the measurement scale. The researcher also ensures that there are no outliers in the research data, meaning no data points significantly deviate from the rest of the dataset, by examining the data distribution using a boxplot.

Regarding the measurement tools, both the Mindfulness Attention & Awareness Scale (MAAS) and Online Impulsive Buying Tendency Scale (OIBT) met the standards for good measurement tools, such as the corrected item-total correlation and reliability test using Cronbach's alpha technique. The use of simple linear regression was appropriate for analyzing whether mindfulness predicts impulsive online buying tendencies, and all assumptions for regression analysis were met.

## Sample or Population

The sample of this study consists of male and female early adults aged 20-39 years who have engaged in online shopping, whether through e-commerce applications or social media platforms, such as WhatsApp and Instagram. Early adulthood was chosen as the target demographic because this age group dominates online shopping activities (Annur, 2023). The researcher employed a convenience sampling method to ensure that participants who completed the questionnaire did so voluntarily. Participants were directed to agree to the informed consent before providing their details and completing the measurement instruments by selecting the option "I Agree."

The sample for this study consisted of young adults who had previously shopped online. Data collection took place from March 6 to March 30, 2024, and involved 487 participants who met the research criteria. The majority of respondents were female (75.764%), aged 21 (30.801%), from Java (90.554%), and primarily working on their theses or dissertations (38.809%). In terms of online shopping activity, most participants had shopped online within the past 1-2 weeks (81.109%), predominantly using Shopee (91.992%) to purchase clothing and accessories (82.752%).

Several ethical issues, including voluntary participation, lack of harm to participants, and confidentiality, must be considered in this study. The principle of voluntary participation emphasizes that participants have personal rights and feelings that must be respected, including their right to decide whether to participate in the research (Creswell, 2012). To uphold this principle, researchers provided participants with clear information about the study's objectives, terms, responsibilities, and rights before they chose to

participate. This information was presented at the beginning of the questionnaire, allowing participants to make informed decisions. If they agree to participate, they can select "I Agree" in the informed consent section of the Google Forms questionnaire.

Regarding the no harm to participants principle, researchers must ensure the safety and well-being of participants throughout the study (Creswell, 2012). In this research, no actions were taken that could harm participants, and their comfort while completing the questionnaire was prioritized. This included the use of easily readable fonts and clear instructions. Additionally, potential risks are communicated, such as possible eye strain, data usage, and the estimated time required to complete the questionnaire (15–20 min).

The anonymity principle ensures that the collected data cannot be linked to specific individuals. To maintain this, researchers did not ask for participants' names or initials, ensuring that responses remained unidentifiable. Furthermore, the confidentiality principle requires researchers to protect participant data (Creswell, 2012). The researcher is committed to maintaining data security by ensuring that research data are used solely for academic purposes and are accessible only to the researcher and academic supervisor.

## Data Measurement

This study utilized two questionnaires classified as attitude scales to assess participants' attitudes toward certain matters. First, the Mindfulness Attention and Awareness Scale (MAAS) was Developed by Brown and Ryan (2003) and adapted by Yusainy et al. (2018). The MAAS includes 15 statement items. Responses are rated on a Likert scale ranging from 1 (Almost Always) to 6 (Almost Never), indicating the frequency of respondents' agreement with the statements. None of the items required reverse scoring. The final score was calculated by summing all item scores, with higher total scores indicating a higher tendency for mindfulness in early adults.

The other scale is Impulsive Buying Tendency Scale (IBTS): Created by Verplanken & Herabadi (2001) and available in an Indonesian version (Herabadi, 2003), IBTS was adapted by adding the word "online" after "store.", and the scale name will become the Online Impulsive Buying Tendency Scale (OIBT). It consists of 20 statement items, with responses rated on a Likert scale from 1 (Strongly Agree) to 7 (Strongly Disagree), reflecting respondents' level of agreement. Items 1, 2, 4, 5, 6, 7, and 14 require reverse scoring. The final score was obtained by summing all item scores, with higher scores indicating a higher online impulsive buying tendency in early adults.

Before using the instruments, the researcher conducted item analysis and reliability testing. Item analysis was performed using item-rest correlation. According to Aspelmeier's R table (Real Statistics Using Excel, 2023), the critical r for $df = 500$ was 0.087. For the MAAS instrument with a total of 15 items, item-rest correlations ranged from 0.219 to 0.625, meaning that no items were discarded for the mindfulness variable. For the OIBT instrument with 20 items, item-rest correlations ranged from 0.190 to 0.716, indicating that no items were discarded for the online impulsive buying tendency variable.

Reliability testing was conducted using Cronbach's alpha. The MAAS instrument had an alpha of 0.835, whereas the OIBT instrument had an alpha of 0.886. Instruments with a Cronbach's alpha value > 0.7 are considered reliable (Taber, 2018). Therefore, both the instruments were deemed reliable.

## Data Analysis

As the researcher also aims to examine the prediction of mindfulness on online impulsive buying tendency, simple linear regression analysis was utilized. All calculations were conducted using JASP 0.16.02 software. All hypotheses were accepted at $p < 0.05$ level of significance.

Before conducting the data analysis using linear regression with the enter method, the researcher performed preliminary tests. To determine the normality of the data distribution for the two research variables, the Shapiro-Wilk test was conducted, along with examining the skewness and kurtosis values to determine the appropriate statistical technique. If normal, Pearson Correlation will be used. If not, we will use Spearman Correlation.

The researcher ensured that the eight assumptions for simple linear regression testing according to Berry in Field (2017) were met before conducting the regression test: variable type, non-zero variance, no correlation with external variables, no significant outliers, independent errors, homoscedasticity, and normally distributed errors. The researcher also calculated the R-squared value to assess the role of mindfulness in predicting impulsive online buying tendency among early adults who shop online.

## Result

All variables were normally distributed; therefore, the researcher utilized parametric statistical techniques, specifically Pearson's correlation.

Table 1. Normality Test

| Test | Criteria | Mindfulness | OIBT | Interpretation |
|---|---|---|---|---|
| Shapiro-Wilk | $\rho > 0.05$ | 0.248 | 0.118 | Normal |
| Skewness | Z<1.96 | -0.243 | -0.261 | Normal |
| Kurtosis | Z<1.96 | -1.043 | -1.747 | Normal |

The Pearson Correlation analysis using JASP, presented in Table 2, revealed a significant negative correlation between mindfulness and online impulsive buying tendency among early adults who shop online, with $r = -0.201$, $p < 0.001$, two-tailed, $r^2 = 0.0404$. The coefficient of determination ($r^2 = 0.0404$) indicates that 4.04% of the variance in impulsive online buying tendency can be explained by mindfulness.

Table 2. Pearson Correlation

| Measurement | | Total OIBT | Total MAAS |
|---|---|---|---|
| 1. Total OIBT | Pearson's r | - | |
| | p-value | - | |
| 2. Total MAAS | Pearson's r | -0.201 | - |
| | p-value | < .001 | - |

All regression assumptions were fulfilled. First, the independent and dependent variables must be continuous. Both mindfulness and impulsive online buying tendency were measured using Likert scales, which are continuous variables. Second, non-zero variance: The predictor variable must have non-zero variance (Field, 2017). To fulfill this assumption, data were collected through various social media platforms, yielding 487 diverse samples from different regions, age groups, and genders. Third, there is no correlation with external variables: the predictor variable should not correlate with external variables. As the study was conducted online, external factors beyond the researcher's control could have influenced the results. However, the researcher minimized this by including specific criteria and screening questions to ensure that participants met the study's requirements.

Fourth, there are no significant outliers: Outliers are data points that are significantly different from the rest of the dataset. The researcher identified outliers using boxplots in JASP and iteratively eliminated them until the boxplot no longer displayed any outliers. Thus, this assumption is deemed to be satisfied. Fifth, independent errors: Data must be collected through independent observations without participant manipulation. This assumption can be violated if autocorrelation exists in the data. To confirm its fulfillment, the researcher performed a Durbin-Watson test, yielding a result between 1 and 2. The Durbin-Watson statistic for the two variables was 1.879, indicating no autocorrelation between residuals and satisfying this assumption.

Sixth, homoscedasticity: The variance of the independent variable must be consistent. A residual vs. predicted plot (Figure 1) was used to examine variance distribution, showing a consistent spread, which can be seen by the location of data being near each other, which means that this assumption is met. Finally, for normally distributed errors, the residuals (errors) of the regression line must be normally distributed. A residual histogram (Figure 2) confirmed a normal distribution, and a Q-Q plot (Figure 3) demonstrated residual points closely aligned with the line, ensuring that this assumption was met.
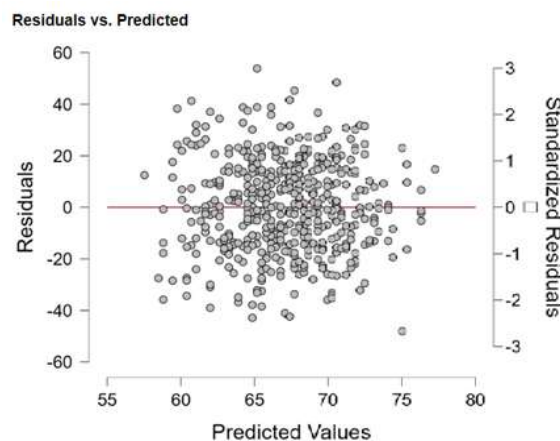

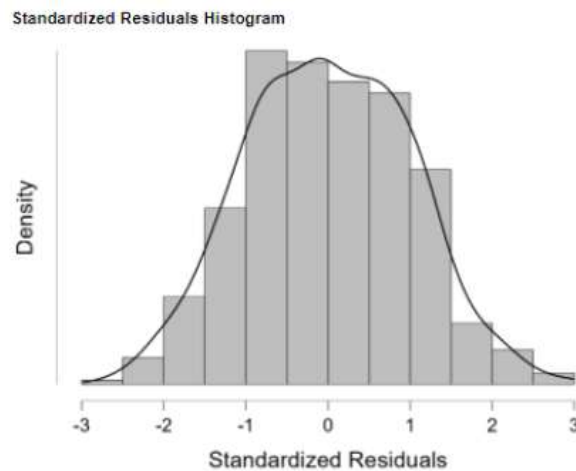
Figure 1. Residual vs Predicted Plot

Figure 2. Residual histogram

The eighth assumption is linearity, which requires a linear relationship between the variables. According to Field (2017), linearity can be observed through plots where variables align along a straight line. To verify this, the researcher utilized the Q-Q Plot in Figure 3. The data points closely followed a straight line, confirming that the linearity assumption was satisfied.
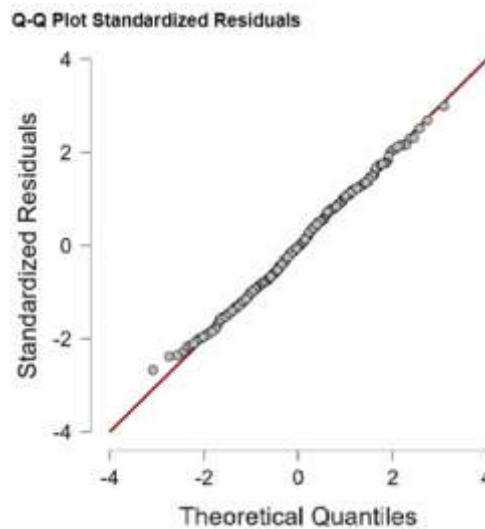


Figure 3. Q-Q Plot Standardized Residuals

After confirming that all assumptions were met, the researcher conducted a simple linear regression analysis using JASP software to examine the prediction of mindfulness on online impulsive buying tendencies among early adults who shop online. The analysis yielded $F(1, 485) = 20.437$, $p < 0.001$, as presented in the ANOVA table (Table 3).

Table 3. ANOVA result

| Model | | Sum of Squares | df | Mean Square | F | p |
|-------|------------|----------------|-----|-------------|--------|--------|
| H1 | Regression | 6627.685 | 1 | 6627.685 | 20.437 | <0.001 |
| | Residual | 157280.927 | 485 | 324.291 | | |
| | Total | 163908.612 | 486 | | | |

The researcher also calculated the R-squared value (Table 4) to determine the contribution of mindfulness to impulsive online buying tendencies among early adults who shop online.

Table 4. R-squared result

| Model | R | $R^2$ | Adjusted $R^2$ | RMSE |
|-------|-------|-------|----------------|--------|
| H0 | 0.000 | 0.000 | 0.000 | 18.365 |
| H1 | 0.201 | 0.040 | 0.038 | 18.008 |

Simple regression analysis found that mindfulness significantly predicted 4.04% of the variance in impulsive online buying tendency. The results of the simple linear regression test in Table 5 produced the regression equation for mindfulness and Online Impulsive Buying Tendency among early adults who shop online: online impulsive buying tendency = 85.210 + (-0.318 × mindfulness score). The regression coefficient value (-0.318) shows that every 1 unit increase in mindfulness is associated with a 0.318 unit decrease in online impulsive buying tendency.

Tabel 5. Simple Regression Analysis Result

| Model | | Unstandardized | Standard Error | Standardized | t | p | |
|-------|---|----------------|----------------|--------------|---|---|---|
| H0 | Intercept | 67.053 | 0.832 | | | 80.104 | <0.001 |
| H1 | Intercept | 85.210 | 4.098 | | | 21.564 | <0.001 |
| | Mindfulness | -0.318 | 0.070 | -0.219 | -4.965 | <0.001 | |

The researcher used the Independent T-Test technique to examine the relationship between gender and online impulsive buying tendency. However, before conducting the T-test, the assumption of homogeneity of variance must be met, which can be checked by performing the Levene Test in JASP. Variance in the distribution is considered homogeneous if the Levene Test result has a p-value > 0.05. The Levene Test result showed p = 0.927, indicating that the homogeneity of variance assumption was met. Additionally, the researcher checked the normality assumption using the Shapiro-Wilk test. According to the table below, both normality tests for online impulsive buying tendency in women and men were normal, as both had p-values > 0.05.

The results of the Independent T-Test (see Table 6) indicated that women had higher online impulsive buying tendency scores (M = 68.546, SD = 18.360) than men (M = 62.437, SD = 17.669). The mean difference was significant, with t(485) = -3.184, p < .001, d = -0.336 (small effect). A T-Test was considered significant if the p-value was < 0.05. In this study, the p-value from the t-test was 0.001, meaning there was a significant difference between the online impulsive buying tendency of early adult women and early adult men, although with a small effect.

Table 6. T-Test Result

| Model | ` | Standard Error | Standardized | t | p | Interpretation |
|-------|---|----------------|--------------|---|---|----------------|
| OIBT | p>0.05 | -3.184 | 485 | 0.001 | -0.336 | Signifikan |

## Discussion

The study found that mindfulness negatively and significantly predicted impulsive online buying tendency in early adults who shop online. This finding suggests that individuals with lower mindfulness tend to be more impulsive in their online shopping behaviors. Conversely, mindful individuals tend to exhibit less impulsivity when shopping online. This research supports previous studies (Dyatmika et al., 2023; Lesmana, 2017; Salisa et al., 2022), which found that less mindful individuals, including those in early adulthood, tend to have higher impulsivity, as shown by consistent negative correlations.

Mindfulness, as awareness focuses on internal and external experiences, helps individuals avoid being overly reactive in their behavior. Zimbardo and Boyd liken mindfulness to "living in the present," in contrast to "living for the present," as described by Brown et al. (2007), living in the present means being aware of current experiences, whereas living for the present involves fixating on those experiences. A mindful individual can neutralize distracting thoughts and emotions from the past or future and refocus on the present. Therefore, mindfulness is flexible and sustainable.

In the context of online shopping, impulsive individuals, typically less mindful, are more reactive to stimuli such as promotions, discounts, or appealing products, which can provoke excitement and trigger impulsive buying thoughts. According to Verplanken and Herabadi (2001), positive emotions like excitement can drive online impulsive buying tendencies, indicating that positive feelings can further encourage an individual's desire to make a purchase.

Affective factors significantly differentiated impulsive from non-impulsive shopping. This study shows that the affective aspects of online impulsive buying tendencies play a larger role than cognitive ones, suggesting that emotional responses strongly influence impulsive online shopping behaviors. This aligns with Herabadi's findings that emotional drivers often lead to unplanned purchases fueled by positive feelings (Verplanken & Herabadi, 2001).

Cognitively, impulsive buying tendencies relate to thoughts about the benefits of shopping, without deep consideration of the actual need for the item. Cognitive factors also involve beliefs about the costs and benefits of purchases. In online shopping, stimuli such as low prices may alter a person's view of the costs and benefits of buying, sometimes leading to the purchase of items that are not essential. This situation reflects the conflict between heart and mind, as described by Verplanken and Herabadi (2001), where emotions drive the desire for an item that may not be necessary.

The choice to measure online impulsive buying tendencies in early adults was based on data from Databoks, which shows that most e-commerce users are between the ages of 20-39 (Annur, 2023). This finding is consistent with previous research, where 81.1% of the participants reported shopping online within the past week. Online shopping is particularly popular among early adults owing to its convenience, practicality, and time/cost savings. However, these benefits also generate positive emotions when shopping, especially when promotions and attractive offers create stimuli that influence impulsive buying.

Given that early adulthood is a transitional phase in managing personal finances, impulsive online buying should be monitored. Impulsive purchases may lead individuals to seek pleasure through unnecessary spending, which can negatively impact their financial well-being (Handayani et al., 2018; Pradipto et al., 2016) and result in feelings of guilt over impulsive purchases (Herabadi, 2003)

The study also found significant gender differences in impulsive online buying tendencies, with women having higher mean scores than men. This may be because women experience more enjoyment or positive emotions during shopping. Research by Tulungen (2013) supports this finding, suggesting that women are more likely to experience happiness when encountering discounts or attractive items. Guha (2023) showed that the desire to experience positive emotions while shopping online is higher among women. This emotional aspect aligns with Tulungen's (2013) finding that women generally exhibit stronger emotions than men do. These results are consistent with Herabadi's (2003) research on offline impulsive buying, which found that women are more prone to impulsive purchases than are men.

Women are more likely to engage in compulsive buying because they often use shopping to manage their emotions and are more prone to impulsive purchases (Tarka et al., 2022). This tendency is influenced by their higher levels of neuroticism and openness to feelings, along with lower extraversion, compared to men. Additionally, women are more susceptible than men to viewing shopping as a means of emotional regulation and a source of pleasure, emphasizing the hedonistic aspect of consumption.

However, the findings differ from Dyatmika et al. (2023), who reported only a small difference in online impulsive buying between men and women, with higher scores for women. Other factors influencing impulsive buying beyond mindfulness, as explained by Lesmana (2017), could account for this discrepancy.

Methodologically, convenience sampling was used because of its time efficiency (Creswell, 2012). involving participants who willingly and voluntarily participated. To control for validity, the researcher ensured that participants met criteria (ages 20-39 and previous online shopping experience) by asking for demographic information and confirming their eligibility. Data from participants outside the criteria were excluded. The research also gathered additional demographic information, such as residence, gender, occupation, and product types purchased online, to provide more insight into the participants' backgrounds.

The sample of 487 participants is representative of early adults who shop online, meeting the sample size requirements for populations of over 10,000 (Bartlett et al., 2001). The study ensured participant anonymity, and informed consent was obtained.

Regarding the measurement tools, both the Mindfulness Attention & Awareness Scale (MAAS) and Online Impulsive Buying Tendency Scale (OIBT) met the standards for good measurement tools, with good corrected item-total correlation and reliability. The use of simple linear regression was appropriate for analyzing whether mindfulness predicts impulsive online buying tendencies, and all assumptions for regression analysis were met.

A strength of this study is the expanded participant base compared to previous studies on mindfulness and online impulsive buying, which often focused on a specific gender (women), age group (teenagers), region (Aceh), or shopping platform (Dyatmika et al., 2023). This study broadens its scope by including various genders, locations, and online shopping platforms.

However, a limitation of this study was the distribution of the data. Although respondents from various age and domicile categories were included, the distribution was not fully uniform. Future studies should aim to achieve a more balanced distribution across age and domicile groups. Additionally, given the significant regression results, future research could explore multiple regressions by incorporating additional independent variables alongside mindfulness to determine the strongest predictors of impulsive buying tendencies. A more

comprehensive model would provide deeper insights into the key psychological factors influencing impulsive online shopping behavior.

## Conclusion

The results of this study are in line with the research objectives, as it was found that mindfulness significantly predicts impulsive online buying tendency in young adults with a negative relationship. Mindful individuals are better able to control impulsive urges when shopping online, whereas individuals with low mindfulness tend to be more impulsive. Mindfulness acts as an active awareness that helps individuals avoid reacting to stimuli such as promotions or attractive offers.

Compared to previous studies, which are limited to a certain gender or area, these findings highlight the negative relationship between mindfulness and impulsive buying tendency in general, and emphasize that affective factors, such as excitement, have a greater influence than cognitive factors. Additionally, women were found to have a higher tendency for impulsive buying than men due to a greater intensity of positive emotions while shopping. There are several recommendations for future research, including applying participant recruitment from a more evenly distributed age and domicile range, such as using probability sampling techniques supported by snowball sampling, to reach individuals living in Eastern Indonesia.

Future researchers may also explore and analyze the role of other factors that may influence online impulsive buying tendency, such as self-control, personality, young adult environmental differences by gender, individual impulsive buying motives, or other factors, such as intensity of e-commerce and social media usage.

This study implies that young adults who shop online can benefit from enhancing their mindfulness skills to prevent impulsive buying. By applying mindfulness, they can avoid being driven by emotions or thoughts while shopping and consider their purchases more deeply and objectively. This involves reflecting on questions such as whether the desire to buy is due to emotional urges, the necessity and utility of the item, and the financial impact of the purchase. This approach can help consumers pause and think before making purchase decisions.

Mental health practitioners can provide psychoeducation on the negative effects of impulsive buying and strategies to avoid it, such as mindfulness. Mental health practitioners can develop mindfulness-based interventions or training programs for young adults who shop online. Online shopping platforms also can develop a new feature such as adding time to think before creating a purchase. Other mindfulness strategies can also be evaluated in terms of effectiveness in the context of online shopping.

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