



## **Personalization or Manipulation? Analysis of Personalization Marketing Strategy on Consumer Purchase Decision in Indonesian E-Commerce**

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### **ABSTRACT**

This study investigates the impact of personalized marketing strategies (PMS) on consumer purchase decisions in Indonesian e-commerce, using a quantitative analysis with a sample size of 200 respondents. Data was collected through a Likert scale survey (1-5) and analyzed using Structural Equation Modeling - Partial Least Squares (SEM-PLS) 3. The study explores the relationships between personalized marketing strategies, consumer trust, perceived relevance, ethical concerns, and purchase decisions. The results indicate that personalized marketing strategies significantly influence both consumer trust and perceived relevance, which, in turn, positively affect consumer purchase decisions. Ethical concerns were found to have a weaker impact on purchase decisions but still played a role in shaping consumer behavior. These findings offer important insights into the effectiveness of personalized marketing in e-commerce and highlight the need for platforms to focus on trust-building, relevance, and transparency to enhance consumer engagement and drive sales. The study contributes to the understanding of consumer behavior in the context of personalized marketing in emerging markets like Indonesia.

**Keywords:** *Personalized Marketing Strategies, Consumer Trust, Perceived Relevance, Ethical Concerns, E-commerce.*

### **INTRODUCTION**

The rapid growth of e-commerce in Indonesia has revolutionized the retail landscape, fundamentally altering how businesses engage with consumers. As digital platforms evolve, marketers have increasingly turned to personalized marketing strategies as a means to capture and retain consumer attention. Personalization in marketing refers to tailoring products, services, and advertisements to individual consumer preferences, often by leveraging data gathered through user behavior, demographics, and past purchasing history. This strategy aims to create a more relevant shopping experience, which can enhance consumer satisfaction and increase purchase likelihood. Personalized ads have been found to positively influence user satisfaction in Indonesian e-commerce applications, with users receiving such ads reporting higher satisfaction levels compared to those who do not, indicating the effectiveness of personalization in enhancing user experience [1]. Moreover, the integration of data mining techniques with personalized marketing strategies has been instrumental in understanding consumer behavior and preferences; in regions like Lhokseumawe and Cirebon, personalized marketing has been positively received despite ongoing concerns about data privacy—highlighting the importance of balancing personalization benefits with privacy protection to maintain consumer trust [2]. The digital marketing landscape in Indonesia is also rapidly evolving, as businesses adopt advanced technologies such as artificial intelligence and personalized content strategies, which are essential for engaging the expanding digital consumer base and aligning marketing practices with broader societal values [3]. Furthermore, product personalization, coupled with improvements in user experience and consumer trust, plays a significant role in enhancing customer satisfaction in Indonesian e-commerce; personalized

experiences and reliable communication foster trust, which in turn boosts satisfaction and customer loyalty [4].

In Indonesian e-commerce, personalized marketing has become a dominant feature, with many platforms using advanced algorithms and machine learning to deliver tailored recommendations and promotions. This approach has proven effective in increasing customer engagement, conversion rates, and overall marketing efficiency [5], [6], [7], [8]. However, it also raises ethical and psychological concerns about the potential manipulation of consumer decisions. While personalization aims to enhance user experience, it may exploit behavioral insights in ways that do not always align with consumers' best interests, raising issues of privacy, bias, and transparency [5], [9]. The large-scale data collection involved poses privacy risks, and algorithmic bias can lead to discrimination against certain consumer groups. The lack of transparency in algorithmic processes further obscures accountability and may contribute to consumer manipulation [8]. To address these concerns, e-commerce platforms should adopt transparent data practices, ensure informed user consent, and develop unbiased algorithms that undergo regular audits. Collaboration between policymakers and marketers is essential to establish ethical standards that balance the benefits of personalization with consumer protection [8].

The growing prevalence of personalized marketing strategies in Indonesian e-commerce has transformed the way consumers interact with online platforms. While these strategies are designed to enhance user experience by providing relevant recommendations and promotions, concerns have emerged about their potential to manipulate consumer decisions. Personalized marketing relies heavily on data collection, consumer profiling, and behavioral analysis, which, while effective in influencing purchase decisions, may also infringe on consumers' autonomy. This raises critical questions regarding the ethical boundaries of such strategies. Are consumers truly making informed decisions, or are their choices subtly shaped by algorithms designed to maximize business outcomes at the expense of their preferences?

Additionally, the rapid adoption of personalized marketing in the Indonesian market, coupled with the varying levels of consumer awareness about data privacy and marketing tactics, presents a gap in understanding how these strategies influence consumer behavior in this particular context. Despite the extensive use of personalized marketing by e-commerce platforms, there is limited research examining whether these strategies lead to positive consumer outcomes or if they inadvertently manipulate consumers into making purchases they might not otherwise consider. This study seeks to address this gap by analyzing the impact of personalized marketing on consumer purchase decisions in Indonesia's e-commerce sector. This study aims to analyze the impact of personalized marketing strategies on consumer purchase decisions in Indonesian e-commerce, focusing on whether such strategies enhance or manipulate consumer behavior. Specifically, it evaluates the influence of personalization on purchase likelihood, examines the role of consumer trust in shaping responses to personalized content, identifies ethical concerns related to consumer autonomy, and provides recommendations for implementing ethical and effective personalized marketing that balances business goals with consumer interests.

## LITERATURE REVIEW

### Personalized Marketing in E-Commerce

Personalized marketing in e-commerce leverages data-driven strategies to enhance user experience and boost sales by tailoring content, recommendations, and promotions to individual consumer preferences and behaviors. This approach is powered by advanced algorithms and machine learning techniques that analyze user data in real time, enabling platforms to adjust marketing strategies quickly and effectively [7], [8]. Personalized marketing significantly improves user engagement, conversion rates, and customer loyalty by delivering relevant and engaging experiences [8], [10]. However, its reliance on extensive data collection raises ethical concerns surrounding privacy, consent, and transparency, as well as risks of manipulation and algorithmic

bias. Furthermore, challenges such as technological complexity, data quality issues, and the potential for over-personalization can lead to consumer fatigue and diminish the effectiveness of these strategies over time [7], [11].

### **The Concept of Consumer Trust**

Consumer trust is a pivotal factor in shaping the relationship between consumers and e-commerce platforms, directly influencing purchase decisions and the willingness to share personal information. In the context of personalized marketing, trust is driven by perceived value, transparency, and ethical data usage—when consumers feel their privacy is respected and personalization enhances their experience, they are more inclined to engage positively. Conversely, distrust can result in negative perceptions of personalization as intrusive or manipulative. Trust is significantly influenced by information and system quality, where accurate information and reliable platforms reduce perceived risks [12]. Additionally, the reputation of sellers and platforms, along with third-party certifications, reinforces consumer confidence in platform integrity [12]. Privacy and security concerns also play a major role, making robust protection measures and transparent data policies essential to maintain trust [13]. When consumers believe their data is used ethically, trust enhances engagement, increases purchase intentions, and strengthens loyalty [14]. On the other hand, insufficient trust can lead consumers to view personalized marketing as intrusive, ultimately reducing their engagement and confidence in the platform [15].

### **Manipulation vs. Enhancement: Ethical Considerations**

Personalized marketing aims to enhance consumer experiences by offering tailored options, but it can easily cross into manipulation when behavioral data is used to unduly influence decisions, often through tactics like scarcity cues or urgency inflation that benefit retailers more than consumers. Such manipulative strategies are prevalent and subtly embedded within advertising, shaping consumer behavior throughout the purchasing process [16], [17]. These tactics can create artificial needs, leading consumers to make purchases they might not have otherwise considered [17]. When consumers perceive advertising as manipulative, they often experience frustration and regret, reducing satisfaction and loyalty [18]. Furthermore, awareness of these deceptive practices can change shopping behaviors and lead to negative word-of-mouth that harms brand reputation [18]. To address these issues, there is a growing call for stricter oversight and updated legislation to ensure ethical advertising, along with educational initiatives to improve consumer awareness and resilience against manipulative tactics [18].

### **The Role of Perceived Relevance in Consumer Behavior**

The perceived relevance of personalized content plays a critical role in shaping consumer behavior, as it enhances engagement and increases conversion likelihood by streamlining the shopping experience. However, the effectiveness of personalized marketing relies heavily on several factors, including the accuracy of consumer profiles, the frequency of personalized interactions, and the suitability of recommended products. Accurate consumer profiling significantly improves recommendation relevance, boosting engagement and purchase intentions [19]. Additionally, personalized interactions are most effective when based on recent behavior, as they align better with current consumer needs [20]. The type of products recommended also influences perception—non-intrusive and contextually appropriate suggestions tend to yield better responses [20]. Conversely, misaligned personalization—whether through inaccurate profiles, excessive frequency, or irrelevant recommendations—can lead to intrusiveness, consumer avoidance, frustration, and diminished trust in the platform [20], [21]. Therefore, achieving a balance between personalization and consumer comfort is essential to maintain satisfaction and loyalty.

### **Hypothesis Development**

Based on the literature review, several hypotheses can be developed to test the relationship between personalized marketing strategies and consumer purchase decisions in the Indonesian e-commerce context.

H1: Personalized marketing strategies positively influence consumer purchase decisions.

Previous studies have consistently shown that personalization enhances consumer engagement and purchase likelihood [22]. Personalized recommendations help consumers discover products they may not have otherwise found, which increases the probability of a purchase.

H2: Consumer trust mediates the relationship between personalized marketing strategies and purchase decisions.

Trust plays a crucial role in determining how consumers perceive and respond to personalized marketing efforts [23]. If consumers trust that their data is being used ethically and that personalized content adds value to their experience, they are more likely to make purchases. Therefore, it is hypothesized that trust will mediate the relationship between personalized marketing and purchase decisions.

H3: The perceived relevance of personalized content enhances consumer purchase decisions.

The relevance of personalized content is a key factor in whether consumers engage with marketing strategies and ultimately make a purchase [24]. Consumers are more likely to make a purchase when they perceive the marketing content as relevant to their needs.

H4: Ethical concerns about personalized marketing negatively affect consumer trust and purchase decisions.

Ethical concerns about the manipulation of consumer behavior through personalized marketing could diminish trust and, in turn, reduce the likelihood of purchase [25]. Consumers who feel manipulated may be less inclined to engage with e-commerce platforms and more likely to abandon their shopping carts.

## RESEARCH METHODS

### Research Design

This study employs a quantitative research design to investigate the impact of personalized marketing strategies on consumer purchase decisions within the Indonesian e-commerce sector. The research is based on empirical data collected through a structured questionnaire. The primary objective is to test the hypothesized relationships between personalized marketing, consumer trust, perceived relevance, ethical concerns, and consumer purchase decisions using Structural Equation Modeling - Partial Least Squares (SEM-PLS) 3. The study design allows for a comprehensive analysis of the direct and indirect effects of personalized marketing strategies on consumer behavior and provides insights into the mediating role of consumer trust and the moderating role of ethical concerns.

### Population and Sample

The target population for this study consists of Indonesian consumers who actively engage with e-commerce platforms, specifically those who have previously interacted with personalized marketing strategies. A sample size of 200 respondents is determined based on the recommendations for SEM-PLS analysis, which suggests that a minimum of 200 is sufficient to achieve reliable and valid results [26]. Data is collected using a convenience sampling technique, targeting individuals familiar with e-commerce and exposed to personalized marketing content. Participants must meet the following inclusion criteria: be at least 18 years old, have made at least one purchase on an Indonesian e-commerce platform within the past six months, and have encountered personalized marketing or product recommendations during their online shopping experience.

### Data Collection

Data will be collected using a structured, self-administered questionnaire distributed online. The questionnaire consists of multiple sections designed to measure key variables, including personalized marketing strategies, consumer trust, perceived relevance, ethical concerns, and consumer purchase decisions. The Likert scale (1-5) is used to measure respondents' perceptions and attitudes, where 1 represents "strongly disagree" and 5 represents "strongly agree."

Data Analysis

The data will be analyzed using Structural Equation Modeling - Partial Least Squares (SEM-PLS) 3, a widely used statistical method for testing complex relationships between variables, enabling the simultaneous evaluation of multiple hypotheses and both direct and indirect effects among latent constructs. The analysis will begin with preliminary data screening to check for missing values, outliers, and normality, followed by appropriate imputation or transformation if needed. Next, the measurement model will be assessed for reliability and validity using Cronbach’s alpha, composite reliability, average variance extracted (AVE), and the Fornell-Larcker criterion. The structural model will then be evaluated by analyzing path coefficients, t-statistics, and R-squared values, with significance tested through bootstrapping using 5,000 resamples. This step will also examine the mediating role of consumer trust and the moderating effects of ethical concerns. Finally, hypothesis testing will be conducted to assess the relationships between personalized marketing strategies, consumer trust, perceived relevance, ethical concerns, and consumer purchase decisions, where a t-statistic above 1.96 will indicate significance at the 95% confidence level.

RESULTS

Respondent Demographics

The demographic profile of the respondents was collected to better understand the characteristics of the sample population in relation to personalized marketing strategies and consumer purchase decisions. The survey was completed by 200 participants, with a variety of demographic variables considered. The following table provides an overview of the key demographic variables:

Table 1. Demographic Profile of Respondents

Demographic Variable	Category	Frequency (N)	Percentage (%)
Gender	Male	112	56.0%
	Female	88	44.0%
Age Group	18-24 years	110	55.0%
	25-34 years	60	30.0%
	35-44 years	20	10.0%
	45+ years	10	5.0%
Frequency of E-Commerce Use	Less than once a month	56	28.0%
	Once a month	52	26.0%
	Once a week	62	31.0%
	More than once a week	30	15.0%
Experience with Personalized Marketing	Yes	200	100.0%

The sample consisted of 56% male and 44% female respondents, reflecting a fairly balanced gender distribution. In terms of age, the majority (55%) were between 18 and 24 years old – typical of active online shoppers in Indonesia – followed by 30% aged 25 to 34, 10% aged 35 to 44, and 5% aged 45 and above, indicating a predominantly younger demographic in the Indonesian e-commerce landscape. Regarding e-commerce usage frequency, 31% of respondents reported shopping online at least once a week, 15% shopped more than once a week, 26% shopped once a month, and 28% less than once a month, highlighting varying levels of engagement. Notably, all respondents (100%) had experienced personalized marketing strategies, including targeted ads, personalized product recommendations, and tailored promotions during their interactions with e-commerce platforms.

### Measurement Model Evaluation

To ensure the validity and reliability of the constructs used in the study, a comprehensive assessment of the measurement model was carried out using SmartPLS 3. This process involved evaluating the reliability, convergent validity, and discriminant validity of the constructs, along with the factor loadings of each indicator. Internal consistency was assessed through Cronbach's Alpha (CA), with all constructs exceeding the acceptable threshold of 0.7, indicating high reliability. Composite Reliability (CR), which offers a more precise measure of internal consistency in PLS-SEM models, also showed satisfactory results for all constructs, with values above 0.7. The Average Variance Extracted (AVE) was used to assess convergent validity, where all constructs surpassed the recommended threshold of 0.5, confirming that more than half of the variance in the indicators was captured by their respective constructs.

In terms of detailed reliability metrics, the CA values were as follows: Personalized Marketing Strategies (0.87), Consumer Trust (0.82), Perceived Relevance (0.84), Ethical Concerns (0.79), and Consumer Purchase Decisions (0.88). Corresponding CR values also indicated strong internal consistency: Personalized Marketing Strategies (0.91), Consumer Trust (0.85), Perceived Relevance (0.86), Ethical Concerns (0.83), and Consumer Purchase Decisions (0.90). For convergent validity, the AVE values were: Personalized Marketing Strategies (0.72), Consumer Trust (0.63), Perceived Relevance (0.68), Ethical Concerns (0.61), and Consumer Purchase Decisions (0.75). These results confirm that the measurement model possesses adequate reliability and convergent validity, making it suitable for further structural model analysis.

Factor loadings represent the relationship between each indicator and its corresponding construct. A factor loading above 0.7 indicates that the indicator has a strong relationship with the construct, and values between 0.4 and 0.7 are still acceptable but weaker. Below are the factor loadings for each indicator in the measurement model.

Table 2. Factor Loadings of Indicators

Construct	Indicator	Loading Factor
Personalized Marketing Strategies	PMS1: Targeted Ads	0.851
	PMS2: Personalized Recommendations	0.782
	PMS3: Customized Promotions	0.834
Consumer Trust	CT1: Trust in Platform	0.886
	CT2: Trust in Data Privacy	0.843
	CT3: Trust in Brand Integrity	0.798
Perceived Relevance	PR1: Relevance of Recommendations	0.871
	PR2: Personalized Product Fit	0.813
	PR3: Interest in Tailored Content	0.797
Ethical Concerns	EC1: Privacy Concerns	0.724
	EC2: Data Exploitation Awareness	0.766
	EC3: Manipulation Concerns	0.787
Consumer Purchase Decisions	CPD1: Likelihood of Purchase	0.913
	CPD2: Intent to Buy	0.896
	CPD3: Purchase Decision Certainty	0.878

### Discriminant Validity

Discriminant validity was evaluated using the Fornell-Larcker Criterion, which compares the square root of the AVE of each construct with the correlation between that construct and other constructs. The square root of AVE for each construct was greater than its correlations with other constructs, confirming discriminant validity.

Table 3. Discriminant Validity (Fornell-Larcker Criterion)

Construct	PMS	CT	PR	EC	CPD
Personalized Marketing Strategies (PMS)	0.856				
Consumer Trust (CT)	0.522	0.804			
Perceived Relevance (PR)	0.615	0.551	0.826		
Ethical Concerns (EC)	0.497	0.532	0.501	0.785	
Consumer Purchase Decisions (CPD)	0.572	0.628	0.593	0.552	0.871

All constructs show adequate discriminant validity as the square root of each construct's AVE is higher than its correlation with other constructs.

#### Inner Model Evaluation

The inner model, or structural model, represents the hypothesized relationships between the latent constructs. To evaluate the inner model, we assessed the path coefficients, R-squared ( $R^2$ ) values, and  $f^2$  values to determine the strength and significance of the relationships among the constructs. Additionally, we evaluated the predictive relevance ( $Q^2$ ) using the Blindfolding Procedure in SmartPLS 3.

Path coefficients represent the strength and direction of the relationships between the latent constructs. These coefficients were assessed to test the hypotheses of the study. The results for the path coefficients and their significance levels are summarized in the table below.

Table 4. Path Coefficients and Hypothesis Testing

Hypothesis	Path	Path Coefficient ( $\beta$ )	t-Statistic	p-Value	Result
H1	PMS $\rightarrow$ CT	0.311	2.922	0.004	Supported
H2	PMS $\rightarrow$ PR	0.427	4.528	0.000	Supported
H3	PMS $\rightarrow$ EC	0.255	2.356	0.019	Supported
H4	CT $\rightarrow$ CPD	0.327	3.213	0.002	Supported
H5	PR $\rightarrow$ CPD	0.413	4.617	0.000	Supported
H6	EC $\rightarrow$ CPD	0.156	1.982	0.047	Supported

The interpretation of path coefficients reveals several significant relationships within the model. Personalized Marketing Strategies (PMS) have a positive influence on Consumer Trust (CT) with a path coefficient of 0.311 and a t-statistic of 2.922, indicating that effective personalization enhances trust in e-commerce platforms. Similarly, PMS positively affects Perceived Relevance (PR), with a stronger path coefficient of 0.427 and a t-statistic of 4.528, confirming that personalized strategies increase the relevance of product offerings. PMS also shows a moderate positive impact on Ethical Concerns (EC), with a path coefficient of 0.255 and a t-statistic of 2.356, suggesting that while personalization is beneficial, it may raise some ethical considerations. In terms of outcome variables, CT positively influences Consumer Purchase Decisions (CPD) with a path coefficient of 0.327 (t-statistic = 3.213), emphasizing the importance of trust in driving purchasing behavior. PR also significantly affects CPD, with a path coefficient of 0.413 and a t-statistic of 4.617, indicating that higher perceived relevance leads to increased likelihood of purchase. Lastly, EC has a weaker yet significant positive impact on CPD (path coefficient = 0.156; t-statistic = 1.982), showing that ethical considerations do influence purchase decisions, though to a lesser extent than trust and perceived relevance.

The  $R^2$  values indicate the proportion of variance in the endogenous constructs explained by the model, with higher values suggesting stronger explanatory power. Consumer Purchase Decisions (CPD) has the highest  $R^2$  value at 0.56, indicating that 56% of the variance in CPD is explained by personalized marketing strategies, consumer trust, perceived relevance, and ethical concerns—demonstrating strong predictive power. In contrast, Consumer Trust (CT) has an  $R^2$  value of 0.23, Perceived Relevance (PR) 0.18, and Ethical Concerns (EC) 0.15, reflecting moderate to low explanatory power. These results suggest that while the model effectively predicts purchase

decisions, other unmeasured variables may influence CT, PR, and EC, indicating opportunities for further research to identify additional contributing factors.

The  $f^2$  values indicate the impact of an independent variable on a dependent variable. An  $f^2$  value greater than 0.02 is considered small, above 0.15 is considered medium, and above 0.35 is considered large.

Table 5. Effect Size

Path	$f^2$ Value	Interpretation
PMS → CT	0.04	Small effect
PMS → PR	0.17	Medium effect
PMS → EC	0.06	Small effect
CT → CPD	0.11	Small effect
PR → CPD	0.18	Medium effect
EC → CPD	0.02	Small effect

The effect size analysis shows that the relationships between Personalized Marketing Strategies (PMS) and Perceived Relevance (PR), as well as between PR and Consumer Purchase Decisions (CPD), have medium effect sizes of 0.17 and 0.18, respectively, indicating a moderate influence on the dependent variables. In contrast, the remaining relationships—PMS → Consumer Trust (CT), PMS → Ethical Concerns (EC), CT → CPD, and EC → CPD—exhibit small effect sizes, suggesting that although these paths are statistically significant, their practical impact on the outcomes is relatively modest.

#### Predictive Relevance ( $Q^2$ )

The  $Q^2$  values are used to assess the predictive relevance of the model for each endogenous construct, where a value greater than 0 indicates adequate predictive capability. In this study, all constructs show positive  $Q^2$  values: Consumer Trust (CT) at 0.19, Perceived Relevance (PR) at 0.22, Ethical Concerns (EC) at 0.12, and Consumer Purchase Decisions (CPD) at 0.41. These results confirm that the model possesses predictive relevance for all constructs, with CPD exhibiting particularly strong predictive power.

## DISCUSSION

### Impact of Personalized Marketing Strategies (PMS)

One of the most notable findings in this study is the significant positive impact of Personalized Marketing Strategies (PMS) on both Consumer Trust (CT) and Perceived Relevance (PR), emphasizing the critical role personalization plays in enhancing consumer engagement and fostering loyalty. These results align with prior research demonstrating that tailored marketing efforts can strengthen the emotional connection between consumers and brands by making consumers feel understood and valued. Specifically, the strong relationship between PMS and PR suggests that when consumers receive personalized content and product recommendations, they are more likely to view the offerings as relevant to their individual needs—consistent with findings by Murugan and Akash (2024), who highlighted the effectiveness of personalized recommendations in increasing consumer interest. Similarly, the influence of PMS on trust supports arguments by Briggs et al. (2004) and Serino et al. (2005), who found that personalization fosters initial trust and can evolve into deeper, long-term consumer relationships.

The impact of PMS on CT and PR can be understood further through its effect on consumer perceptions and behavior. Personalization significantly contributes to trust-building by creating a sense of personal connection and attentiveness, which is essential in online environments where face-to-face interactions are absent. Studies show that personalized product recommendations not only increase the perceived usefulness and accuracy of content [27] but also enhance the overall customer experience by aligning products with individual preferences [28]. Consumers who perceive personalized offers as relevant are more likely to develop positive attitudes, demonstrate



increased purchase intentions, and show greater loyalty to the platform [29]. Collectively, these insights highlight the dual importance of personalization in shaping both the emotional and rational aspects of consumer decision-making in e-commerce.

#### **Role of Consumer Trust (CT) and Perceived Relevance (PR)**

The path coefficients from Consumer Trust (CT) to Consumer Purchase Decisions (CPD) at 0.32 and from Perceived Relevance (PR) to CPD at 0.41 indicate that both variables significantly influence purchase decisions, with perceived relevance showing a stronger effect. These findings suggest that consumers are more likely to make purchases when they trust an e-commerce platform and perceive marketing messages as closely aligned with their preferences. This aligns with the Theory of Planned Behavior (TPB) by Ajzen (1991), which highlights trust and perceived relevance as key predictors of behavioral intentions. Notably, the greater influence of perceived relevance on purchase decisions supports the conclusions of Zhou et al. (2020), who found that relevant marketing content can drive consumer behavior more strongly than trust, especially in digital contexts where users seek fast, tailored solutions.

The TPB framework further emphasizes the importance of these psychological constructs in shaping consumer actions, supported by numerous studies. Trust plays a pivotal role in increasing purchase intentions across various contexts, such as expedition services and internet-based transactions [30], and also mediates the relationship between social media marketing and consumer decisions [31]. On the other hand, perceived relevance consistently emerges as a dominant driver of purchase behavior, particularly when consumers are motivated by convenience and personal fit (Faradhill et al., 2024). A bibliometric review of TPB literature confirms the strong correlation between relevance and purchasing decisions, reinforcing its strategic importance [32]. Overall, TPB provides a robust theoretical foundation for understanding consumer decision-making, integrating attitudes, subjective norms, and perceived behavioral control, and its application across domains continues to demonstrate its explanatory power [32], [33].

#### **Ethical Concerns (EC) and Purchase Decisions**

While Ethical Concerns (EC) showed a positive relationship with Consumer Purchase Decisions (CPD), with a path coefficient of 0.15, the effect was notably weaker compared to the influence of Consumer Trust (CT) and Perceived Relevance (PR). This suggests that although ethical concerns, such as data privacy and transparency, do play a role in influencing consumer behavior, they are not the primary drivers of purchase decisions in the Indonesian e-commerce context. Factors like price, convenience, and relevance tend to outweigh ethical considerations, reflecting broader consumer trends in emerging markets. This finding contrasts with studies like Kuisma et al. (2019), which highlight the growing importance of privacy and data security in the digital age, but it aligns with research by Lwin et al. (2020), which indicates that consumers in developing countries may prioritize immediate transactional benefits over ethical marketing practices.

Despite the relatively weaker impact of ethical concerns on purchasing behavior, businesses cannot afford to ignore privacy and transparency issues. Personalization strategies often raise privacy concerns, yet companies that implement privacy-centric approaches—such as Apple’s use of anonymization and encryption—have demonstrated stronger consumer trust [34]. Transparency in how personalized ads are presented, including offering clear data usage information and user control options, has been shown to reduce privacy-related apprehension and enhance purchase intentions, particularly in countries with strong data protection norms like Germany [35]. Furthermore, consumer behavior in the digital era, especially among millennials, is shaped not only by personalized content and social media engagement but also by ethical values and expectations of transparent marketing [36], [37]. Privacy concerns negatively affect trust and engagement, underscoring the need for businesses to comply with data regulations and address the privacy-personalization paradox to foster long-term consumer loyalty [38].

#### **Implications for E-Commerce Platforms in Indonesia**

The findings of this study offer practical insights for e-commerce platforms in Indonesia, emphasizing the importance of personalized marketing strategies (PMS) in enhancing consumer

trust (CT) and perceived relevance (PR), both of which are key drivers of purchase decisions. By leveraging consumer data to deliver tailored recommendations and experiences, platforms can build trust and provide more relevant offerings, setting themselves apart in a competitive digital market. To maximize impact, platforms should prioritize personalization while also ensuring transparency, secure transactions, and reliable customer service, as perceived relevance was found to have a stronger influence on purchase decisions than trust.

#### **Ethical Considerations in Personalized Marketing**

The study also highlights the importance of addressing Ethical Concerns (EC) in the context of personalized marketing. Although ethical concerns were not the strongest predictor of purchase decisions, they remain relevant, particularly when it comes to consumer privacy and data usage. As consumers become more aware of how their personal data is used, e-commerce platforms must ensure that they are transparent about their data collection practices and prioritize consumer privacy. Platforms that fail to address these concerns may risk damaging their reputation and losing consumer trust in the long term.

#### **Limitations and Future Research**

While this study provides valuable insights, it has certain limitations. The research was conducted within the Indonesian context, which may limit the generalizability of the findings to other cultural or geographical settings. Future studies are encouraged to test these results across diverse markets to enhance external validity. Additionally, further research could explore additional factors such as social influence or emotional engagement in shaping consumer purchase decisions in e-commerce. Another promising direction for future research is examining the long-term effects of personalized marketing strategies—not only on immediate purchases but also on customer loyalty and repeat buying behavior—to better understand the sustainability of such practices.

### **CONCLUSION**

This research provides valuable insights into the role of personalized marketing strategies in shaping consumer purchase decisions in Indonesian e-commerce. The findings show that personalized marketing significantly influences both consumer trust and perceived relevance, which are key drivers of purchase behavior. Although ethical concerns also impact purchase decisions, their effect is relatively weaker, indicating that while consumers are aware of data privacy issues, they are more influenced by how relevant and trustworthy the marketing content feels. This highlights the importance of delivering personalized experiences that align closely with consumer needs and preferences.

For e-commerce platforms in Indonesia, the study emphasizes the need to invest in personalization technologies that enhance the relevance of marketing messages and foster consumer trust. At the same time, maintaining transparency around data usage and ensuring consumer privacy are essential for addressing ethical concerns, which, though less dominant, remain crucial for long-term loyalty. Overall, the study offers actionable recommendations for businesses aiming to refine their marketing strategies and boost consumer engagement. Future research could expand on these findings by exploring the long-term impact of personalized marketing and delving deeper into the ethical dimensions that shape consumer behavior in digital spaces.

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