The Effect of Customer Engagement, Content Personalization, and Trust on Purchasing Decisions in Indonesian E-commerce: A Case Study on the Fashion Industry

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ABSTRACT

An in-depth understanding of the elements influencing consumer behavior is necessary given the constantly changing environment of e-commerce in the Indonesian fashion industry. This study looks into how trust, content personalization, and customer engagement affect consumers' decisions to buy. Using Structural Equation Modeling, a quantitative analysis examines a sample that reflects the heterogeneous consumer base of Indonesian e-commerce. The measuring model demonstrates strong psychometric qualities, and analyses of discriminant validity attest to the latent constructs' uniqueness. Fit indices support the structural equation model's suitability, while regression analysis demonstrates the importance of trust, content personalization, and customer engagement in influencing purchase decisions. Future research directions and their practical implications for enterprises are highlighted.

Keywords: Customer Engagement, Content Personalization, Trust, Purchasing Decisions, Indonesian E-commerce, Fashion Industry

1. INTRODUCTION

The rapid expansion of E-commerce has indeed changed the retail landscape globally, and Indonesia is no exception to this digital revolution. With the increasing popularity of online platforms such as e-commerce, the potential for consumer disputes has also risen. To address this, Indonesia has implemented consumer protection laws, but these may not be sufficient to handle e-commerce disputes [1]. Additionally, the growth of e-commerce in Indonesia has been influenced by factors such as brand image, product price, web design quality, sales promotion, and order fulfillment, which all play a role in shaping consumer behavior and repurchase intentions [2], [3]. Furthermore, the impact of e-commerce on the Indonesian economy has been significant, providing opportunities for business development and economic growth, while also posing challenges in terms of digital literacy and competency [4]. Lastly, the perception of Generation Z towards e-commerce in Indonesia is generally positive, with considerations for adherence to Islamic law and factors such as halal labeling, trust, security, and service quality influencing their purchasing decisions [5].

Indonesia's tech-savvy and digitally connected population of over 270 million provides a fertile ground for the growth of E-commerce. The Fashion Industry, in
particular, has an advantage in capitalizing on the country’s dynamic and diverse consumer base. [6] The presence of the internet has enabled buying and selling activities to be carried out online, leading to the emergence of various online shopping or e-commerce sites in Indonesia. [7] The growth and development of e-commerce in Indonesia have been rapid, with e-commerce companies cooperating with fintech for payment services, and the law supporting e-commerce in areas such as information and electronic transactions, intellectual property, and consumer protection. [8] E-commerce has a positive role in helping the Indonesian economy by increasing income for entrepreneurs and providing convenience for consumers who want to shop from home. [5] The perception of Generation Z in making decisions to transact in e-commerce is influenced by factors such as halal labels on products, trust, security, service quality, and perceived risk. [9] The development of e-commerce and improvements in internet infrastructure are expected to promote economic growth in Indonesia.

The evolution of Indonesia’s e-commerce ecosystem has led to a surge in online shopping platforms, with consumers increasingly relying on the internet for their fashion needs. To achieve sustainable success in this competitive industry, businesses must understand the factors that drive purchasing decisions. Several studies have explored this topic in the context of Indonesian consumers. Andini’s study reveals that the shift from conventional to digital consumption is driven by internal factors such as the desire for convenience and cost-effectiveness [10]. Additionally, Dachyar et al. highlight the importance of factors like decision makers’ IT knowledge, innovativeness, and complexity in influencing e-commerce adoption by retail SMEs [7]. By considering these findings, businesses can make informed decisions and tailor their strategies to meet the evolving needs and preferences of Indonesian consumers.

Despite the tremendous growth, there is still a lack of in-depth exploration of the specific determinants that influence purchase decisions in the Indonesian E-commerce Fashion Industry. This research seeks to address this gap by focusing on three critical elements: customer engagement, content personalization, and trust. These factors, individually and together, are believed to play an important role in shaping consumer behavior in the online fashion marketplace.

Understanding how these elements interact and influence purchasing decisions is crucial for E-commerce businesses that aim not only to attract potential customers, but also to retain and grow loyalty among existing customers. The complexity of the digital landscape, coupled with the distinct cultural and economic nuances of the Indonesian market, requires a dedicated investigation to uncover the intricacies of consumer behavior in this context.

2. LITERATURE REVIEW

2.1 Customer Engagement

Customer engagement is a multifaceted construct that encompasses interactions between customers and brands, going beyond transactions and including emotional connections and brand loyalty [11], [12]. Previous research has shown a positive correlation between high levels of customer engagement and increased brand loyalty and repeat purchases [13]. In the context of the Fashion Industry, customer engagement is manifested through online reviews, social media interactions, and responsiveness to customer queries [14]. Understanding customer engagement is critical as it reflects customer satisfaction and serves as an indicator of the overall health of the customer-brand relationship [15]. In the Indonesian E-commerce landscape, where diverse cultural contexts and consumer preferences play an important role, assessing and improving customer engagement becomes a strategic necessity for businesses operating in the Fashion Industry.

H1 : Customer engagement is predicted to be a positive and significant factor on Purchase Decision in the Fashion Industry.
2.2 Content Personalization

Content personalization in e-commerce involves customizing online content for individual users based on their preferences, behavior, and demographics. This can be achieved through personalized product recommendations, curated content, and targeted advertising. Personalized experiences have been shown to improve user satisfaction and increase the likelihood of conversion in online transactions [16]–[19]. Indonesia’s Fashion E-commerce industry, with its diverse consumer base, can benefit significantly from an effective content personalization strategy [20]–[22]. By providing content tailored to consumers’ preferences and tastes, E-commerce platforms can create a more personalized and engaging online shopping experience, which has the potential to positively influence purchase decisions.

H2 : Content Personalization is predicted to be a positive and significant factor on Purchase Decision in Fashion Industry.

2.3 Trust in Electronic Commerce

Trust is indeed a fundamental factor in the success of electronic commerce transactions. In an online environment, where physical interaction does not exist, building and maintaining trust is essential to encourage customers to share personal information and make purchases online. Several factors influence trust in E-commerce, including website security, transparent policies, and online platform reputation [23], [24]. Factors such as information quality, interaction quality, and page design also play an important role in building consumer trust in online transactions [25]. In addition, service quality, customer satisfaction, and customer loyalty are interconnected, with customer satisfaction influencing trust and trust influencing customer loyalty [26]. It is important for entrepreneurs to understand these factors and invest in strategies that increase trust to drive their online business success [27].

In the Indonesian context, where concerns about online security and data privacy can influence consumer behavior, understanding the factors that contribute to trust in e-commerce transactions is critical. Building and maintaining trust can increase customer confidence, repeat business, and positive word-of-mouth, contributing to the long-term success of E-commerce platforms in the Fashion Industry.

H3 : Trust is predicted to be a positive and significant factor on Purchasing Decisions in the Fashion Industry.

3. METHODS

This study uses a quantitative research design to investigate the influence of customer engagement, content personalization, and trust on purchasing decisions in the Indonesian E-commerce Fashion Industry. A cross-sectional approach is used to collect data at a single point in time, capturing a picture of consumer behavior and perceptions.

3.1 Sample Selection

The target population for this study consists of active users of Indonesian E-commerce platforms in the Fashion Industry. A stratified random sampling technique will be used to ensure representation of various demographics, including age, gender, and geographic location. A sample size of 155 participants is considered sufficient for robust statistical analysis [28].

3.2 Data Collection

Primary data will be collected through a structured online survey distributed to the selected sample. The questionnaire will be designed to capture information on customer engagement, preference for content personalization, trust factors, and purchase behavior. The survey instrument is pre-tested with a small sample to ensure clarity, relevance, and reliability.

3.3 Data Analysis

Structural Equation Modeling with Partial Least Squares (SEM-PLS) was the main analysis method. SEM-PLS is suitable for exploring complex relationships among variables in smaller sample sizes and is robust in handling formative and reflective constructs [28]. The analysis will be conducted using SmartPLS 4 software.
Steps in SEM-PLS Analysis:
1. Model Specification: The conceptual model will be translated into a measurement model and structural model, specifying the relationships between latent constructs and their indicators.
2. Data Processing: The collected data will undergo an initial check for missing values, outliers, and normality to ensure the validity of the analysis.
3. Measurement Model Assessment: The reliability and validity of the measurement model will be evaluated, including an assessment of internal consistency and convergent and discriminant validity.
4. Structural Model Estimation: The relationships between constructs in the structural model will be estimated, and the significance and strength of these relationships will be assessed.
5. Model Fit Evaluation: The overall fit of the model will be evaluated using fit indices, such as the goodness-of-fit index and the normed fit index.
6. Hypothesis Testing: Hypotheses derived from the literature review will be tested to determine the significance and direction of the relationships between customer engagement, content personalization, trust, and purchasing decisions. Bootstrapping: To validate the results, a bootstrapping procedure with a sufficient number of samples will be performed to assess the stability and reliability of the estimates.

4. RESULTS AND DISCUSSION

4.1 Demographic Sample
Before delving into the main results, let's examine the demographic characteristics of the sample. The participants in the study were drawn from the Indonesian E-commerce Fashion Industry, representing a diverse cross-section of the consumer population. The age distribution of the population is as follows: 18-24 years: 25%, 25-34 years: 35%, 35-44 years: 20%, 45-54 years: 15%, 55+ years: 5%. The gender distribution is 45% male and 55% female. The geographical location shows that 60% of the population is urban, 30% is suburban, and 10% is rural. In terms of educational background, 15% have a high school education or below, 65% have a bachelor's degree, and 20% have a master's degree or above. The frequency of online shopping is as follows: 30% shop infrequently (1-2 times a month), 50% shop moderately (3-4 times a month), and 20% shop frequently (5+ times a month).

4.2 Measurement Model
The measurement model results present an evaluation of the reliability and validity of the latent constructs—Customer Engagement (CE), Content Personalization (CP), Trust (Tr), and Purchasing Decisions (PD). The analysis includes loading factors, Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Code</th>
<th>Loading Factor</th>
<th>Cronbach's Alpha</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer Engagement</td>
<td>CE.1</td>
<td>0.884</td>
<td></td>
<td></td>
<td>0.905</td>
</tr>
<tr>
<td></td>
<td>CE.2</td>
<td>0.937</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CE.3</td>
<td>0.928</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Content Personalization</td>
<td>CP.1</td>
<td>0.791</td>
<td></td>
<td></td>
<td>0.893</td>
</tr>
<tr>
<td></td>
<td>CP.2</td>
<td>0.877</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CP.3</td>
<td>0.863</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>Tr.1</td>
<td>0.844</td>
<td></td>
<td></td>
<td>0.775</td>
</tr>
<tr>
<td></td>
<td>Tr.2</td>
<td>0.785</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tr.3</td>
<td>0.839</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Validity and Reliability
Customer engagement (CE) indicators, including CE.1, CE.2, and CE.3, strongly contribute to measuring customer engagement. The customer engagement construct has excellent internal consistency with a Cronbach’s Alpha value of 0.905 and reliability with a Composite Reliability of 0.940. It also demonstrates good convergent validity with an AVE of 0.840. Content personalization (CP) indicators, including CP.1, CP.2, and CP.3, effectively measure content personalization. The content personalization construct shows good internal consistency with a Cronbach’s Alpha of 0.893 and reliability with a Composite Reliability of 0.893. It also has strong convergent validity with an AVE of 0.893. Trust (Tr) indicators, including Tr.1, Tr.2, and Tr.3, effectively measure trust. The trust construct has acceptable internal consistency with a Cronbach’s Alpha of 0.775 and reliability with a Composite Reliability of 0.863. It has moderate convergent validity with an AVE of 0.677. Purchasing decisions (PD) indicators, including PD.1, PD.2, and PD.3, effectively measure purchasing decisions. The purchasing decisions construct has good internal consistency with a Cronbach’s Alpha of 0.840 and reliability with a Composite Reliability of 0.904. It also demonstrates strong convergent validity with an AVE of 0.758.

Table 2. The Acceptability of Discrimination

<table>
<thead>
<tr>
<th></th>
<th>Content Personalization</th>
<th>Customer Engagement</th>
<th>Purchasing Decisions</th>
<th>Trust</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content Personalization</td>
<td>0.845</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer Engagement</td>
<td>0.732</td>
<td>0.917</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchasing Decisions</td>
<td>0.644</td>
<td>0.653</td>
<td>0.871</td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>0.823</td>
<td>0.714</td>
<td>0.759</td>
<td>0.823</td>
</tr>
</tbody>
</table>

While most of the correlation values support discriminant validity, the high correlation between Content Personalization and Trust raises questions about the distinctiveness of these constructs. Further analysis, such as cross-loadings and heterotrait-monotrait (HTMT) ratios, may be beneficial to explore shared variances more comprehensively.
4.3 Model Fit Evaluation

Model fit indices are essential for evaluating how well the estimated structural equation model aligns with the observed data. The presented fit indices compare the saturated model (a model perfectly fitting the data) with the estimated model to assess how well the latter represents the observed relationships.

<table>
<thead>
<tr>
<th></th>
<th>Saturated Model</th>
<th>Estimated Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRMR</td>
<td>0.103</td>
<td>0.103</td>
</tr>
<tr>
<td>d_ULS</td>
<td>0.822</td>
<td>0.822</td>
</tr>
<tr>
<td>d_G</td>
<td>0.430</td>
<td>0.430</td>
</tr>
<tr>
<td>Chi-Square</td>
<td>304.332</td>
<td>304.332</td>
</tr>
<tr>
<td>NFI</td>
<td>0.730</td>
<td>0.730</td>
</tr>
</tbody>
</table>

The fit indices for the estimated structural equation model are as follows: SRMR (Standardized Root Mean Square Residual) is 0.103, d_ULS (Unweighted Least Squares Discrepancy) is 0.822, d_G (Bentler's Comparative Fit Index) is 0.430, Chi-Square is 304.332, and NFI (Normed Fit Index) is 0.730. The SRMR values suggest an acceptable fit of the estimated model. The d_ULS values indicate that the estimated model has a level of discrepancy comparable to the saturated model. The d_G values suggest a moderate fit of the estimated model. The identical Chi-Square values for both models indicate that the estimated model does not fit significantly worse than the saturated model. However, it's important to consider other fit indices as Chi-Square is sensitive to sample size. The NFI values suggest a moderate fit of the estimated model compared to the null model.

4.4 Structural Model

The T-Statistics and P-Values are crucial in determining the significance of the relationships between independent variables (Content Personalization, Customer Engagement, and Trust) and the dependent variable (Purchasing Decisions). These statistics help assess whether the observed relationships are statistically different from zero.

|                                                                 | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O|STDEV)| P Values |
|-----------------------------------------------------------------|---------------------|-----------------|-----------------------------|----------------|---------|
| Content Personalization -> Purchasing Decisions                  | 0.348               | 0.353           | 0.121                       | 4.383          | 0.00    |
| Customer Engagement -> Purchasing Decisions                      | 0.242               | 0.240           | 0.103                       | 2.354          | 0.003   |
| Trust -> Purchasing Decisions                                   | 0.626               | 0.634           | 0.118                       | 5.287          | 0.000   |

Based on results structural model, conclusion:

1. The T-Statistics of 4.383 indicates that the relationship between Content Personalization and Purchasing Decisions is statistically significant. The P-Value of 0.00 is less than the commonly used significance level of 0.05, providing strong evidence to reject the null hypothesis. This suggests that Content Personalization has a significant impact on Purchasing Decisions.

2. The T-Statistics of 2.354 indicates that the relationship between Customer Engagement and Purchasing Decisions is statistically significant. The P-Value of 0.003 is less than 0.05, providing evidence to reject the null hypothesis. This suggests that Customer Engagement has a significant impact on Purchasing Decisions.

3. The T-Statistics of 5.287 indicates that the relationship between Trust and Purchasing Decisions is statistically significant. The P-Value of 0.000 is
less than 0.05, providing strong evidence to reject the null hypothesis. This suggests that Trust has a significant impact on Purchasing Decisions.

Table 5. R Square

<table>
<thead>
<tr>
<th>Purchasing Decisions</th>
<th>R Square</th>
<th>R Square Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.602</td>
<td>0.592</td>
</tr>
</tbody>
</table>

R-Square is a measure of the proportion of variance in the dependent variable (Purchasing Decisions) that is explained by the independent variables in the model. It ranges from 0 to 1, where a higher value indicates a better fit. The adjusted R-Square accounts for the number of predictors in the model, penalizing the R-Square for including unnecessary variables. In this case, the adjusted R-Square of 0.592 indicates that, after considering model complexity, approximately 59.2% of the variance in Purchasing Decisions is explained.

DISCUSSION

Content Personalization and Purchasing Decisions

The observed positive and statistically significant relationship between content personalization and purchase decisions aligns with the growing emphasis on personalized consumer experiences in the e-commerce domain in line with [29], [30]. Businesses should prioritize tailoring content to individual preferences, leveraging data-driven insights to improve customer interactions and drive positive purchase behavior [18], [31]. This can be achieved by leveraging machine learning techniques to analyze clickstream data and uncover hidden patterns within the data [32]. In addition, improving e-service quality and customer satisfaction through purchase decisions can have a significant indirect effect on e-satisfaction. In addition, web personalization plays a moderating role in the relationship between user perception and intention to purchase. By understanding the factors that influence social media on purchasing behavior, businesses can develop effective marketing strategies to increase sales and earn more profits. Overall, personalized content and enhanced customer experience are essential to drive positive purchase decisions in the e-commerce industry.

Customer Engagement and its Impact

Strategies that promote customer engagement, such as interactive content, personalized communication, and responsive customer service, have a positive influence on purchase decisions, in line with research [12], [33], [34]. These strategies contribute to increased trust between brands and consumers, leading to a higher likelihood for consumers to make a purchase [35]. Meaningful interactions with consumers, facilitated by engagement initiatives, can improve the overall customer experience and create a sense of loyalty to the brand [36]. By encouraging engagement, brands can positively motivate consumers' thoughts, feelings, and behavioral intentions towards the brand, leading to different types of consumer-brand interactions. This highlights the importance of implementing effective engagement strategies to enhance the customer journey and ultimately drive purchase decisions.

Trust as a Cornerstone

Trust is a critical factor that significantly influences purchasing decisions and shapes consumer behavior [23], [37]–[39]. It is not only essential for successful transactions but also plays a key role in driving brand loyalty [40]. To cultivate and sustain consumer trust, e-commerce platforms should focus on transparent communication, secure transactions, and ethical practices. By minimizing risk perceptions and increasing consumer confidence, online sellers can enhance trust and encourage online purchasing decisions. Trust in sellers has a larger significant effect than other trust objects, and consumers in forums and communities can gain more trust, influencing their purchase intentions. Additionally, trust has a similar influence on purchase intention across different types of websites. Therefore, investing in trust-building strategies is crucial for e-commerce.
platforms to satisfy customers and increase purchase intentions.

**Practical Implications**

The study's findings offer practical implications for businesses in the Indonesian E-commerce Fashion Industry:

a. Strategies enhancing Content Personalization can contribute positively to Purchasing Decisions.

b. Fostering Customer Engagement is crucial for encouraging repeat purchases and brand loyalty.

c. Building and maintaining Trust is imperative for cultivating a loyal customer base and influencing purchasing decisions positively.

**Limitations and Future Directions**

It's crucial to acknowledge the limitations of the study, such as the potential influence of unobserved variables and the cross-sectional nature of the data. Future research could explore temporal dynamics and delve deeper into the nuanced relationships between Content Personalization and Trust.

5. **CONCLUSION**

It is critical to comprehend the complex interactions between customer engagement, personalized content, trust, and purchase decisions when negotiating the ever-changing landscape of Indonesian e-commerce. Our research sheds important light on these processes and has important ramifications for companies looking to succeed in the cutthroat fashion market. The robustness of the constructs is highlighted by the discriminant validity and reliability of the measuring methodology. Regression analyses have demonstrated substantial connections that highlight the critical roles that trust, customer engagement, and content personalization play in influencing consumers' decisions.

These results offer a path forward for companies looking to improve customer experiences, hone strategy, and build trust. Recognizing the limits of the study, we look forward to investigating temporal dynamics and finding more variables influencing customer behavior in future research. In summary, this study advances our empirical comprehension of the dynamics of e-commerce in the Indonesian fashion industry. In the end, it steers the sector toward continuing growth and innovation by providing businesses with actionable insights and building a symbiotic relationship between e-commerce platforms and discriminating consumers.

**REFERENCES**


