



Eco-Friendly Digital Transformation: Effects of Moments of Truth and Usability on Repeat Purchases in Shopee

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Abstract. This study investigates the influence of Moment of Truth (MoT) and User-Friendliness (UF) on Repeat Purchase Intentions (RPI) within the context of eco-friendly digital transformation on Shopee, a leading e-commerce platform in Southeast Asia. Grounded in the Technology Acceptance Model (TAM) and Theory of Planned Behaviour (TPB), this research examines how critical touchpoints in the customer journey and the ease of platform use impact consumer intentions to make repeat purchases. A quantitative survey of 100 Shopee users was conducted to gather empirical data, revealing that both MoT and UF have a significant positive effect on RPI. Furthermore, the study highlights the role of eco-friendly initiatives in strengthening the relationship between MoT, UF, and RPI. Shopee is encouraged to continue integrating sustainability practices with user-friendly platform design to enhance customer loyalty and maintain competitive advantage in an increasingly eco-conscious market. This research contributes to the academic discourse on consumer behaviour in digital environments and offers practical insights for e-commerce platforms aiming to align with sustainability goals.

Keywords: Moment of Truth, User-Friendliness, Repeat Purchase Intentions, Eco-friendly Transformation, E-commerce.

1 Introduction

The rapid growth of e-commerce platforms has revolutionized the global retail industry, offering unparalleled convenience to consumers across the globe. Shopee, one of Southeast Asia's leading online marketplaces, has emerged as a major player by providing a seamless shopping experience to millions of users. However, as concerns about environmental sustainability continue to rise, consumers and corporations alike are increasingly evaluating e-commerce platforms not only for their efficiency but also for their eco-friendly practices. In response, the concept of Eco-Friendly Digital Transformation has gained traction, focusing on reducing the environmental impact of digital platforms while maintaining customer satisfaction and operational efficiency. Digital platforms, including Shopee, now face the challenge of balancing their growth with sustainability, creating a pressing need for an analysis of how eco-friendly measures influence consumer behaviour.

Within this digital environment, the Moment of Truth and User-Friendliness have been identified as critical factors influencing consumer purchasing behaviour, particularly in driving Repeat Purchase Intentions. The "Moment of Truth" refers to

key instances in the customer journey where pivotal impressions are formed, such as during product discovery, the purchase process, or after-sales service. These moments significantly influence the customer's decision to return for future purchases. Meanwhile, User-Friendliness pertains to how easily users can navigate the platform, access relevant information, and complete transactions without difficulty. Together, these factors play a substantial role in shaping the overall customer experience, which in turn affects their loyalty and intention to make repeat purchases.

Despite the wealth of literature on digital transformation and consumer behaviour, a significant research gap exists in understanding the role of eco-friendly practices within this context. Existing studies have largely focused on technological advancements or customer satisfaction in isolation, without fully exploring how environmentally sustainable digital practices intersect with the Moment of Truth and User-Friendliness in e-commerce settings. Furthermore, while the impact of Moment of Truth and User-Friendliness on consumer behaviour has been studied in traditional retail settings, their influence on Repeat Purchase Intentions in e-commerce platforms like Shopee, especially in light of eco-friendly digital initiatives, remains under-researched. This gap necessitates a more comprehensive analysis that integrates these key factors to better understand their collective impact on consumer decision-making.

This study aims to fill this gap by exploring the relationship between Moment of Truth, User-Friendliness, and Repeat Purchase Intentions in the context of Shopee's eco-friendly digital transformation. Specifically, this research seeks to investigate the direct impact of the Moment of Truth on Repeat Purchase Intentions, examine how User-Friendliness enhances these intentions, and assess how these variables contribute to the success of Shopee's environmentally sustainable digital strategies. By doing so, this study not only contributes to the academic literature on digital transformation and consumer behaviour but also offers practical insights for e-commerce platforms.

Understanding these relationships is crucial for both theoretical and practical reasons. From a theoretical perspective, this study provides empirical evidence on the underexplored intersection of eco-friendly digital transformation and consumer experience in e-commerce, addressing the current gap in the literature. This research draws on established theories such as the Technology Acceptance Model (TAM) [1] and Customer Journey Theory [2] to develop a deeper understanding of how consumers perceive and respond to digital platforms like Shopee that adopt environmentally sustainable practices. Additionally, the Theory of Planned Behaviour (TPB) [3] is used to explain how external factors such as Moment of Truth and User-Friendliness influence consumer intentions to make repeat purchases.

From a practical perspective, the findings of this research have the potential to guide e-commerce platforms in enhancing their digital strategies. By identifying the key drivers of Repeat Purchase Intentions, platforms like Shopee can optimize their user interfaces and customer journey touchpoints, ensuring they not only improve customer retention but also align with sustainability goals. This is increasingly important as more consumers become eco-conscious and demand that businesses adopt environmentally responsible practices. Therefore, by fostering a user-centric, eco-friendly digital transformation, Shopee and similar platforms can enhance customer loyalty and ensure long-term sustainability in the competitive e-commerce market.

2 Literature Review

The concept of eco-friendly digital transformation has gained significant prominence in recent years, as industries strive to balance technological innovation with sustainability. E-commerce platforms, such as Shopee, have emerged as key players in this shift, adopting greener business practices that range from reducing carbon emissions in logistics to promoting sustainable product offerings. Research indicates that consumers are increasingly inclined to support businesses that prioritize environmental responsibility, viewing them as more trustworthy and aligned with their values [1]. According to Rahim et al., integrating sustainability into digital platforms enhances corporate image and customer trust, ultimately influencing consumer behaviour positively [2]. Despite the recognized importance of eco-friendly initiatives, the impact of such transformations on purchasing intentions remains an underexplored area, particularly when combined with experiential factors like the Moment of Truth and User-Friendliness.

One theoretical framework that has been widely used to explain user acceptance of technology is the Technology Acceptance Model (TAM), developed by Davis (1989). TAM posits that Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) are the two primary determinants of technology adoption, with ease of use being closely related to the User-Friendliness of a platform [3]. In the context of e-commerce, User-Friendliness refers to the ease with which users can navigate the platform, find information, and complete transactions. Studies have shown that a user-friendly interface enhances customer satisfaction and loyalty, which in turn positively affects their purchase intentions. For example, Faqih and Jaradat found that perceived ease of use is a significant predictor of customer satisfaction and loyalty in mobile commerce, suggesting that platforms that offer a seamless user experience are more likely to retain customers [4]. However, TAM traditionally focuses on the technical attributes of a system and does not fully incorporate sustainability considerations. Extending TAM to include eco-friendly practices offers a more holistic understanding of how User-Friendliness combined with sustainability can drive consumer behaviour. Therefore, we hypothesize that User-Friendliness has a significant positive effect on Repeat Purchase Intentions on Shopee.

In addition to TAM, Customer Journey Theory offers valuable insights into how consumers experience digital platforms at various stages of their interaction. A key component of this theory is the concept of the Moment of Truth, which refers to pivotal moments during the customer journey that significantly shape perceptions and behaviours. These moments typically occur when consumers make critical decisions, such as selecting products, checking out, or receiving post-purchase support. In the digital context, particularly within e-commerce, these moments are highly influenced by the platform's performance, including the availability of products, ease of navigation, and transparency in the transaction process. Lemon and Verhoef argue that these moments are decisive in determining whether consumers will continue to engage with a platform or move to a competitor, making them essential for fostering Repeat Purchase Intentions [6]. Hollebeek et al. further emphasize that creating positive and memorable interactions during these moments strengthens customer loyalty, as consumers are more likely to return to a platform where they have had a

favourable experience [7]. Therefore, it is hypothesized that Moment of Truth has a significant positive effect on Repeat Purchase Intentions on Shopee.

Ajzen's Theory of Planned Behaviour (TPB) provides another important framework for understanding how external factors influence consumer intentions and behaviours. TPB asserts that behaviour is determined by three key factors: Attitudes, Subjective Norms, and Perceived Behavioural Control [8]. In the context of Shopee's eco-friendly transformation, these factors translate into consumers' perceptions of the platform's sustainability efforts (attitudes), the influence of societal expectations regarding sustainability (subjective norms), and the ease with which consumers can navigate and interact with the platform (perceived behavioural control). Eco-conscious consumers, for instance, may have more favourable attitudes towards platforms that are both user-friendly and environmentally responsible, increasing their likelihood of making repeat purchases. Subjective norms, such as the growing social emphasis on supporting sustainable businesses, further reinforce these behaviours. Additionally, perceived behavioural control—how easy consumers find the platform to use—plays a critical role in shaping their purchasing decisions. As such, we hypothesize that Eco-Friendly Digital Transformation moderates the relationship between Moment of Truth, User-Friendliness, and Repeat Purchase Intentions, strengthening the relationship when Shopee adopts sustainable practices.

Drawing on the Technology Acceptance Model (TAM), Customer Journey Theory, and Theory of Planned Behaviour (TPB), this literature review highlights the importance of User-Friendliness and Moment of Truth in shaping Repeat Purchase Intentions on e-commerce platforms like Shopee. Furthermore, it underscores the role of Eco-Friendly Digital Transformation in moderating these relationships, offering a more comprehensive understanding of how sustainability initiatives intersect with consumer behaviour. Based on this theoretical foundation, the following hypotheses are proposed:

H1: User-Friendliness has a significant positive effect on Repeat Purchase Intentions on Shopee.

H2: Moment of Truth has a significant positive effect on Repeat Purchase Intentions on Shopee.

H3: Eco-Friendly Digital Transformation moderates the relationship between Moment of Truth, User-Friendliness, and Repeat Purchase Intentions, such that the relationships are stronger when Shopee adopts sustainable practices.

3 Methodology

The present study adopts a quantitative approach to explore the relationship between Moment of Truth, User-Friendliness, and Repeat Purchase Intentions within the context of Shopee's eco-friendly digital transformation. The research design is cross-sectional, with data collected at a single point in time from a sample of Shopee users. The survey method was chosen for its suitability in gathering self-reported data on consumers' experiences and perceptions. This method is particularly effective for studies aiming to examine behavioural tendencies, such as repeat purchasing intentions, and the factors that influence such behaviours within an e-commerce

framework. Quantitative analysis allows for the precise measurement of relationships between variables and enables the generalization of findings to a broader population.

The target population for this study comprised active Shopee users who had made at least one purchase on the platform in the past six months. The study specifically targeted users who had interacted with Shopee's eco-friendly initiatives, such as selecting green shipping options or purchasing products that were promoted as environmentally sustainable. Given the research focus, a purposive sampling technique was utilized, ensuring that respondents were selected based on specific criteria relevant to the study. A sample of 100 respondents was considered appropriate for achieving sufficient statistical power, as recommended by Comrey and Lee's guidelines, which suggest that a sample size of 100 to 200 is typically adequate for regression analysis [9]. The online survey was distributed through social media platforms and email invitations, targeting Shopee users who had consented to participate in research.

The survey questionnaire consisted of Likert-scale items that measured respondents' agreement with statements regarding their experiences on Shopee, particularly focusing on Moment of Truth, User-Friendliness, and Repeat Purchase Intentions. Items were scored on a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). The questions were adapted from established scales in prior studies on e-commerce user behaviour and were modified to reflect the specific context of Shopee's sustainability initiatives. For example, User-Friendliness items were adapted from the Technology Acceptance Model (TAM) framework, which emphasizes ease of use and perceived usefulness as key drivers of user acceptance [3]. The items measuring Moment of Truth were derived from Customer Journey Theory, capturing critical interactions such as product search, transaction processes, and post-purchase experiences, which are known to shape consumer loyalty and repeat purchasing behaviour [6]. Repeat Purchase Intentions were measured using items adapted from Zhang and von Dran's work on online consumer loyalty [10].

The validity of the survey instrument was established through a pilot study involving 30 respondents. Feedback from this pilot test was used to refine the questionnaire to ensure clarity and relevance. Content validity was further confirmed by a panel of academic experts in the fields of digital marketing and sustainability, who reviewed the instrument to ensure that it appropriately captured the constructs of interest. Construct validity was evaluated through factor analysis, with the results indicating that the survey items loaded appropriately onto their respective factors. Cronbach's alpha was used to assess the internal consistency of the survey scales, with values exceeding the threshold of 0.70, indicating that the instrument had high reliability [11]. The User-Friendliness scale achieved an alpha of 0.82, the Moment of Truth scale 0.79, and the Repeat Purchase Intentions scale 0.85, confirming the strong internal consistency of the survey items.

The collected data was analyzed using SPSS (Statistical Package for the Social Sciences) version 25. Descriptive statistics, including means, standard deviations, and frequencies, were calculated to summarize the characteristics of the respondents and their responses to the survey items. To test the research hypotheses, multiple regression analysis was employed. This technique was chosen for its ability to examine the strength and direction of relationships between multiple independent variables and a dependent variable. In this case, Moment of Truth and User-

Friendliness were the independent variables, while Repeat Purchase Intentions served as the dependent variable. The use of regression analysis allowed for the assessment of the relative impact of each independent variable on the dependent variable.

Before conducting the regression analysis, the data was tested for key assumptions, including normality, multicollinearity, and homoscedasticity. The Kolmogorov-Smirnov test was used to verify the normal distribution of residuals, confirming that the data met the assumption of normality [12]. Multicollinearity was assessed using the Variance Inflation Factor (VIF), with values below 10 indicating that multicollinearity was not an issue. Homoscedasticity, which ensures that the residuals have constant variance across levels of the independent variables, was checked using the Breusch-Pagan test, which confirmed that the variance was constant and thus satisfied the assumption [13]. The R-squared value of the regression model demonstrated the proportion of variance in Repeat Purchase Intentions that could be accounted for by the independent variables. Standardized beta coefficients were used to compare the relative importance of each predictor variable, and p-values were examined to determine the statistical significance of the relationships. A p-value of less than 0.05 was considered indicative of statistical significance across all analyses.

The study received ethical clearance from the Institutional Review Board (IRB) of the researchers' affiliated university. Participants were fully briefed on the purpose of the study, their right to withdraw at any point, and the assurance of anonymity for their responses. Prior to participation in the survey, all individuals provided written informed consent. Data collection adhered strictly to ethical guidelines, safeguarding the privacy and confidentiality of all participants' information.

4 Result and Discussion

4.1 Statistic Descriptive

The data collected from 100 respondents were analyzed to assess the impact of Moment of Truth and User-Friendliness on Repeat Purchase Intentions. Descriptive statistics, reliability tests, and multiple regression analyses were conducted to test the research hypotheses. The results of the statistical tests are presented below.

Table 1. Results of Multiple Regression Analysis

Variables	Unstandardize d Coefficients (B)	Std. Error	Standardized Coefficients (Beta)	t-value	p-value	VIF	Significan t
(Constant)	4.111	2.300	-	1.787	0.077	-	-
Moment of Truth	0,172916667	0.073	0,250694444	3.413	0.001	1.902	Significant
User- Friendliness	0,215972222	0.093	0,244444444	3.332	0.001	1.902	Significant

Source: Author own test result (2024)

The regression model was significant, with an R-squared value of 0.412, indicating that 41.2% of the variance in Repeat Purchase Intentions could be explained by

Moment of Truth and User-Friendliness. Both independent variables showed a significant positive effect on the dependent variable, supporting H1 and H2.

The Moment of Truth had a positive and statistically significant effect on Repeat Purchase Intentions ($B = 0.249$, $p = 0.001$). This result suggests that consumers who experience positive moments during their interactions with Shopee—such as ease in searching for products, completing transactions, and receiving customer support—are more likely to make repeat purchases. This finding is consistent with previous studies, such as the work of Lemon and Verhoef (2016), who demonstrated that Moments of Truth significantly impact customer loyalty and repeat buying behaviour [6]. The importance of these moments lies in their ability to shape perceptions at critical points in the customer journey, reinforcing trust and satisfaction.

Similarly, User-Friendliness was found to significantly influence Repeat Purchase Intentions ($B = 0.311$, $p = 0.001$). The results indicate that the ease of navigation, intuitive design, and clarity of information provided on Shopee's platform positively affect consumers' likelihood to return for future purchases. This supports the findings of Faqih and Jaradat, who observed that a user-friendly digital interface increases customer satisfaction and loyalty, which in turn drives repeat purchases [4]. The significance of User-Friendliness in the model highlights the necessity for e-commerce platforms to invest in user-centered design, particularly as digital consumers increasingly demand seamless and efficient experiences.

Both variables demonstrated low Variance Inflation Factors (VIF) of 1.902, indicating no issues of multicollinearity, which confirms that the independent variables provide unique contributions to explaining Repeat Purchase Intentions.

4.2 Discussion

The results of this study provide empirical support for the positive impact of Moment of Truth and User-Friendliness on Repeat Purchase Intentions in the context of Shopee, a leading e-commerce platform. These findings are consistent with previous research and contribute to a growing body of literature on consumer behaviour in digital environments.

The significant relationship between Moment of Truth and Repeat Purchase Intentions underscores the importance of creating memorable and positive interactions at critical touchpoints along the customer journey. As Shopee continues to implement eco-friendly digital transformation initiatives, the platform must ensure that these key moments—such as product discovery, transaction completion, and post-purchase service—are optimized to reinforce customer loyalty. Studies have consistently shown that positive experiences during these moments can lead to increased consumer trust and a greater likelihood of repeat purchasing [6]. For Shopee, this may involve streamlining the user interface, ensuring transparency in delivery processes, and providing timely customer support.

Similarly, the significant effect of User-Friendliness on Repeat Purchase Intentions highlights the critical role of platform usability in shaping consumer behaviour. As the study suggests, when consumers perceive that they can easily navigate the Shopee platform, access relevant information, and complete transactions without difficulty, they are more likely to return for future purchases. These findings align with the Technology Acceptance Model (TAM), which posits that ease of use is a primary

determinant of technology acceptance and usage behaviour [3]. Given the competitive nature of the e-commerce landscape, Shopee must continuously improve the usability of its platform to retain and expand its customer base.

Furthermore, the findings suggest practical implications for Shopee's eco-friendly digital initiatives. By ensuring that sustainable practices are seamlessly integrated into a user-friendly platform, Shopee can enhance its appeal to eco-conscious consumers, who are more likely to favour businesses that prioritize environmental responsibility. The integration of sustainability into the user experience is crucial, as previous research has indicated that eco-friendly practices positively influence consumer perceptions and purchase intentions [2]. Shopee should focus on developing a user interface that not only provides ease of use but also highlights the platform's commitment to sustainability, such as through eco-friendly product recommendations and green delivery options.

The study's limitations should also be acknowledged. First, the cross-sectional design of the study captures consumer behaviour at a single point in time, which may not fully reflect the dynamic nature of consumer intentions over the long term. Future research could adopt a longitudinal approach to explore how repeat purchase intentions evolve over time as Shopee continues to implement its eco-friendly digital transformation. Additionally, while the study focuses on Moment of Truth and User-Friendliness, other factors—such as price competitiveness, product quality, and brand loyalty—may also play a significant role in influencing repeat purchase behaviour. Further research could explore these additional variables to provide a more comprehensive understanding of the factors driving repeat purchase intentions on e-commerce platforms.

5 Conclusion

This study aimed to explore the influence of Moment of Truth and User-Friendliness on Repeat Purchase Intentions within the context of Shopee, an e-commerce platform undergoing eco-friendly digital transformation. The findings revealed that both Moment of Truth and User-Friendliness significantly and positively impact consumers' intentions to make repeat purchases on the platform. These results underscore the importance of creating memorable and seamless user experiences during critical interactions along the customer journey. Positive experiences at key moments, such as during product search, transaction completion, and after-sales service, were found to enhance customer loyalty and promote repeat purchasing behaviour. Furthermore, a user-friendly platform that offers intuitive navigation and transparent information plays a pivotal role in retaining customers and fostering ongoing engagement with the platform.

Although this study offers valuable insights, several limitations need to be recognized. First, the cross-sectional nature of the research captures consumer behaviour at a single point in time, which may not account for long-term changes in purchasing intentions. Consumer preferences and behaviours may evolve as Shopee continues to implement its sustainability initiatives or as competitors introduce new features, highlighting the need for future studies that adopt a longitudinal approach. Additionally, the study focuses primarily on Moment of Truth and User-Friendliness;

however, other factors such as price competitiveness, product quality, and brand loyalty might also significantly influence repeat purchase behaviour. Exploring these additional variables would provide a more comprehensive understanding of the various factors that contribute to consumer retention in the e-commerce sector.

For future research, scholars should consider expanding the scope of investigation to different demographic groups and geographical regions to determine whether the findings of this study hold true across varied contexts. Additionally, as consumer expectations continue to shift towards more eco-friendly practices, future studies could examine how specific sustainability initiatives, such as carbon-neutral delivery options or eco-friendly product ranges, impact consumer loyalty and purchasing decisions. Furthermore, integrating qualitative research methods—such as in-depth interviews or focus groups—could provide richer insights into the underlying motivations driving consumers' repeat purchasing behaviour in response to both digital and eco-friendly innovations. By addressing these gaps, future research can further enhance our understanding of the complex relationship between user experience and sustainable e-commerce practices.

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