

Enhancing Value Co-Creation through Artificial Intelligence-Based Personalization among Generation Z Traveloka Users

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ABSTRACT

Purpose – This study examines the effect of AI-enabled personalization on value co-creation among Generation Z users of Traveloka in Indonesia through perceived interactivity and perceived personalization. The study is important because AI-based personalization has become a key strategy in improving customer experience in the online travel agency (OTA) industry.

Design/methodology/approach – This study used a quantitative explanatory approach with survey data collected from 200 Generation Z users of Traveloka. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS.

Finding/Results – The results show that AI-enabled personalization significantly influences perceived interactivity, perceived personalization, and value co-creation. However, perceived interactivity and perceived personalization have positive but insignificant effects on value co-creation.

Originality/Value – This study extends the application of Stimulus-Organism-Response (SOR) theory in the OTA context by highlighting the important role of AI-enabled personalization in enhancing value co-creation among Generation Z users. The findings provide practical insights for OTA companies to strengthen AI-based personalization strategies in digital services.

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1. Introduction

The global tourism industry has undergone a substantial transformation in recent decades, largely attributable to the digitalization of services. Advances in information technology have shifted consumers from traditional service systems toward digital platforms that are online, on-demand, and integrated. One of the major manifestations of this transformation is the rapid growth of OTAs. OTAs are digital platforms that facilitate online bookings for various travel-related services, including flights, hotels, and tour packages. According to global market projections by Market Report World, (2025), the OTAs market is expected to reach approximately USD 69.4 billion in 2025 and continue to grow significantly over the following decade with a strong annual growth rate.

Within the context of this substantial growth of OTAs, the concept of value co-creation has become a crucial aspect to consider. Value co-creation refers to a collaborative process between service providers and consumers in creating mutually beneficial value (Prahalad & Ramaswamy, 2004). In the OTA industry, this approach has shifted the paradigm from a passive consumer model to an active partnership model. This transformation has implications for service quality, as consumers are now viewed as active contributors to the development and enhancement of services.

The implementation of AI-enabled personalization allows OTA platforms to analyze users' preferences, behaviors, and search histories in real time, enabling them to provide more relevant travel recommendations, targeted offers, and more interactive and seamless user experiences. Consequently, OTA platforms can not only optimize customer experiences through more personalized and responsive services, but also strategically enhance their competitiveness in an increasingly competitive digital market through service differentiation. The advent of artificial intelligence (AI) has further strengthened the transformation of OTAs through the implementation of AI-enabled personalization, which enables platforms to analyze user preferences and behaviors in real time to generate more relevant and personalized service recommendations. The implementation of this technology contributes to improving customer experiences while simultaneously strengthening companies' competitiveness in the digital market. However, the use of AI has also raised various concerns, such as technological dependency and the low quality of chatbot-based service interactions, which are often perceived as less responsive and incapable of understanding user contexts in depth. These conditions indicate the existence of challenges related to perceived interactivity and perceived personalization in AI-based OTA services.

In Indonesia, Generation Z represents a highly relevant segment for research related to Online Travel Agencies (OTAs) due to their digital-oriented characteristics and their growing dominance within the national population structure. Although studies examining AI-enabled personalization and value co-creation in digital environments have expanded considerably, empirical evidence within the OTA context remains limited, particularly regarding how perceived interactivity and perceived personalization contribute to value co-creation among younger consumers. Existing tourism studies have primarily focused on value co-creation in destination platforms, mobile communication technologies, service robots, and generative AI applications rather than OTA platforms specifically (Lei et al., 2019; Lin et al., 2024; Zhang et al., 2017). Furthermore, recent tourism research highlights the increasing role of artificial intelligence in facilitating customer value creation and co-creation, yet calls for more context-specific investigations that explain the mechanisms through which AI-driven personalization

influences customer participation and collaborative value generation in digital tourism services (Helal et al., 2026).

The novelty of this study lies in three important aspects. First, this research extends the application of the Stimulus–Organism–Response (S-O-R) framework, which has been widely employed in tourism technology studies, to the OTA environment where AI-based personalization increasingly shapes user experiences and decision-making processes (Kim et al., 2020; Lin et al., 2024). Second, unlike previous studies that predominantly examine general tourists or consumers in developed markets, this study specifically focuses on Indonesian Generation Z users, a segment that demonstrates high digital engagement and intensive use of mobile-based travel platforms. Third, this study contributes to the emerging literature on AI-enabled tourism services by empirically examining whether AI-driven personalization directly enhances value co-creation beyond traditional digital experience factors such as perceived interactivity and perceived personalization. Consequently, the findings are expected to provide new theoretical insights regarding the relative importance of AI-supported personalization mechanisms in stimulating value co-creation behaviour within OTA platforms and to enrich the growing discourse on technology-enabled service ecosystems in tourism.

2. Literature Review & Hypothesis Development

2.1 Stimulus-Organism-Response (SOR) Theory

The Stimulus-Organism-Response (SOR) theory applied in this study was adopted from environmental psychology developed by Mehrabian & Russell, (1947). This theory explains that the environment provides stimuli (S) that influence the internal condition of an individual, referred to as the organism (O), which subsequently triggers a response (R) in the form of approach or avoidance behavior.

According to the S-O-R framework, AI-enabled personalization functions as a stimulus originating from the digital service environment or platform used by customers. When users perceive the benefits of AI technology that align with their personal needs, it generates positive psychological reactions in the form of perceived interactivity and perceived personalization as the organism. Perceived interactivity is formed through the responsiveness and two-way communication provided by the system, while perceived personalization reflects customers' subjective interpretations regarding the suitability of services to their individual needs. Both variables ultimately foster value co-creation by encouraging customers to engage in collaborative value-generating activities, including sharing experiences, offering suggestions, providing data, and assisting fellow users within the platform.

2.2 AI-Enabled Personalization

The advancement of Artificial Intelligence (AI) technology has enabled companies to deliver increasingly personalized experiences through AI-enabled personalization mechanisms. AI-enabled personalization refers to the ability of a system to collect, analyze, and utilize user data to tailor content, recommendations, and interactions in real time according to individual preferences (Teepapal, 2025).

2.3 Perceived Interactivity

Perceived interactivity can be described as the extent to which users perceive a digital system as being responsive, adaptive, and capable of facilitating two-way communication. Systems

that are capable of providing relevant and personally tailored responses are more likely to be perceived as interactive by users. The importance of AI-enabled personalization stems from its capability to adapt to individual user preferences and behavioral patterns, thereby fostering more meaningful and higher-quality interactions.

Personalization plays an important role in improving user experience quality through enhanced system responsiveness and adaptability. AI-enabled personalization enables systems to process user data in real time, allowing them to provide responses that are more relevant, contextual, and aligned with individual preferences. This condition directly contributes to increasing perceived interactivity, as users experience more dynamic and responsive two-way communication (Huang & Rust, 2021).

H1: AI-Enabled Personalization positively influences Perceived Interactivity.

2.4 Perceived Personalization

Perceived personalization describes users' perceptions regarding a platform's ability to understand and tailor its services according to their individual preferences, needs, and characteristics. This perception is determined not only by the existence of personalization features, but also by the extent to which users perceive the relevance and suitability of the content provided (Bleier & Eisenbeiss, 2015).

AI-enabled personalization has significant potential to enhance perceived personalization due to its ability to process large amounts of data (big data) and generate accurate predictions regarding user preferences. AI-based systems include recommendation systems and machine learning algorithms, enable the delivery of more relevant and contextual content compared to traditional personalization methods. As a result, users are more likely to perceive that the system genuinely "understands" their needs (Tam & Ho, 2006).

H2: AI-Enabled Personalization positively influences Perceived Personalization.

2.5 Value Co-Creation

Value co-creation in OTAs can be defined as a collaborative process in which customers and service providers actively interact to create shared value through two-way communication, user engagement, and highly personalized services (Lei, 2019; Shen et al., 2020; Shin et al., 2019).

A high level of interactivity between customers and platforms encourages the establishment of more interdependent relationships in the process of exchanging, processing, and integrating various resources. These resources may include travel information, service preferences, and personalized recommendations. The information exchange mechanism that occurs through such interactivity strengthens customer participation, enhances mutual understanding, and ultimately facilitates the formation of value co-creation processes between customers and OTAs (Wang & Zhao, 2024).

Perceived personalization enhances the relevance of user experiences by providing content, services, and features tailored to individual preferences and needs. Such customization makes users feel valued and recognized for their uniqueness. Furthermore, experiences that are relevant and aligned with user expectations create the perception that the platform genuinely understands customer needs. This condition fosters comfort and trust, which in turn increases customers' motivation to engage more actively with the platform (Tran et al., 2024).

AI-enabled personalization influences value co-creation because AI technology enables OTA platforms to provide services that are more relevant, personalized, and aligned with user preferences. AI-based personalization can enhance customer engagement and create more active interactions between users and platforms in the process of creating shared value

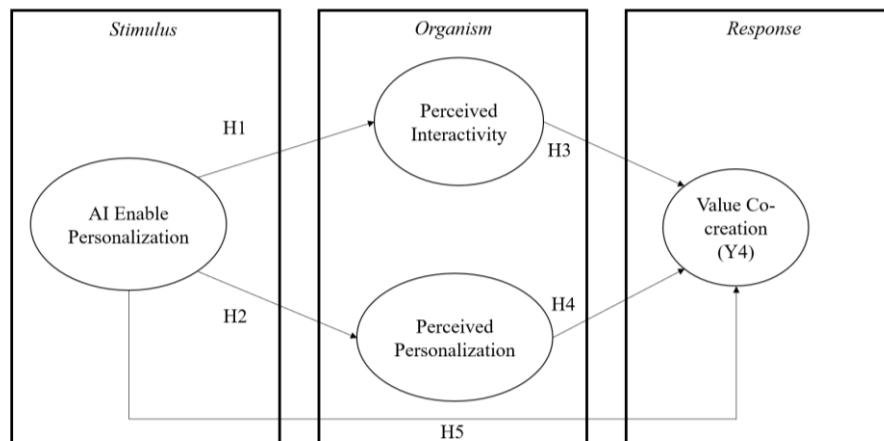
(Prahalad & Ramaswamy, 2004). Previous studies have also shown that AI-based digital personalization is capable of improving customer experiences and consumer participation in value co-creation (Hollebeek et al., 2019).

H3: Perceived Interactivity positively influences Value Co-Creation.

H4: Perceived Personalization positively influences Value Co-Creation.

H5: AI-Enabled Personalization positively influences Value Co-Creation.

Figure 1. Conceptual Model



3. Methodology

3.1 Research Design

This study employs a quantitative explanatory research approach, which aims to explain the causal relationships among variables based on a predetermined conceptual framework while considering other relevant characteristics (Bentouhami et al., 2021).

3.2 Population and Sample

This study focuses on Generation Z users of Traveloka in Indonesia as the target population. Traveloka is one of the leading travel platforms in Southeast Asia that provides consumers with convenience in exploring, booking, and enjoying various travel-related products and services.

Given that the exact population size could not be identified, the sample size was determined based on the rule of thumb recommending a minimum of 5–10 respondents for each research item included in the questionnaire (Hair et al., 2019). According to this approach, the minimum sample size that was obtained was 170 respondents. However, this number was considered insufficient to adequately represent the population; therefore, this study collected data from 200 respondents based on the recommendation of Dash & Paul, (2021), who stated that PLS-SEM requires a minimum sample size of 200 respondents. The sample criteria included individuals aged at least 18 years old, Indonesian citizens, and users who had conducted at least one transaction through the Traveloka application within the last twelve months to ensure that respondents had actual experience with the services being studied.

3.3 Data Collection

This study employed an online survey method to gather data from Online Travel Agency (OTA) users. The questionnaire was disseminated via Google Forms using purposive sampling, allowing the selection of respondents who met the predefined research requirements. The primary data were collected through a structured questionnaire constructed from the measurement indicators of the study variables.

3.4 Measurement

The research instrument used in this study was a structured questionnaire designed to measure all variables within the conceptual research framework, namely AI-enabled personalization, perceived interactivity, perceived personalization, and value co-creation. Each construct was measured using several statements adapted from previous studies that had established validity and reliability, with contextual adjustments related to the use of the Traveloka OTA.

The measurement scale used in this study was a 5-point Likert scale. This scale was selected because it is capable of measuring attitudes and perceptions more sensitively while providing results that can be quantitatively analyzed.

3.5 Data Analysis

The data analysis techniques employed in this study encompass descriptive statistics and inferential statistics, with the latter being implemented through the use of Partial Least Squares Structural Equation Modeling (PLS-SEM) and the assistance of SmartPLS software. PLS-SEM was selected because of its ability to handle complex research models involving multiple variables and mediation-moderation relationships, while also not requiring strict assumptions regarding data distribution (Hair et al., 2021). Furthermore, the selection of PLS-SEM was predicated on its capacity to analyze intricate models comprising multiple latent variables and indicators. Additionally, PLS-SEM's flexibility with respect to data normality assumptions, in comparison to Covariance-Based Structural Equation Modeling (CB-SEM), was a salient factor in its favor.

4. Result and Discussion

4.1 Result

The results of this study indicate that all constructs tested in the model have significant relationships, providing a comprehensive understanding of the role of AI-enabled personalization in enhancing value co-creation among Generation Z in Indonesia. In general, the respondent characteristics in this study were dominated by females (56.6%), individuals residing in Java Island (51.5%), private-sector employees (39.5%), and respondents with a bachelor's degree as their highest educational attainment (47%). These characteristics reflect a sample that is actively engaged in the use of the Traveloka OTA platform.

Table 1. Respondent Characteristics

Characteristics	Category	Frequency	Percentage
Gender	Male	87	43,5
	Female	113	56,5
Residential Area (Island)	Jawa	103	51,5
	Kalimantan	23	11,5
	Papua	3	1,5
	Sulawesi	39	19,5
	Sumatra	32	16
Occupation	Private Employee	79	39,5
	Student	48	24
	Civil Servant	32	16
	Entrepreneur	41	20,5
Highest Educational Attainment	Senior High School/Vocational		
	High School	59	29,5

Diploma (D1–D3)	38	19
Bachelor's Degree (S1)	94	47
Master's Degree (S2)	9	4,5

Source: Processed data by the authors (2026)

The measurement model assessment revealed that all indicators satisfied the recommended loading factor and VIF thresholds, indicating adequate convergent validity and no evidence of multicollinearity among the indicators.

Table 2. Outer Loading and Measurement

Variable	Item	Measurement	Factor loadings*	VIF**	Source
AI-EP	AI-EP1	The AI system in Traveloka displays content and services that align with users' needs and preferences	0.854	1.569	Teepapal (2025)
	AI-EP2	The AI system in Traveloka provides recommendations, discounts, or promotions that match users'	0.791	1.445	
	AI-EP3	The use of the AI system in Traveloka enhances the overall user experience when using the platform.	0.809	1.549	
PI	PI1	Traveloka facilitates easy communication through the interactive features available on its platform	0.811	1.803	Gan <i>et al.</i> , (2025)
	PI2	Users can easily communicate their questions or opinions to Traveloka.	0.799	1.647	
	PI3	Information on Traveloka is easy to access and understand in a timely manner.	0.787	1.704	
	PI4	Users can easily locate the information they need on Traveloka.	0.742	1.371	
PP	PP1	The recommendations provided by Traveloka are relevant to users' needs.	0.868	2.471	Ham (2017)
	PP2	The recommendations provided by Traveloka help users discover travel products that match their interests.	0.759	1.693	
	PP3	The recommendations provided by Traveloka are tailored to users' individual circumstances.	0.750	1.891	
	PP4	The recommendations provided by Traveloka make users feel that they are treated in a personalized manner.	0.829	2.254	
	PP5	The recommendations provided by Traveloka are customized to users' specific needs.	0.813	1.732	

VCC	VCC1	Users frequently provide suggestions to Traveloka to help improve its services and products.	0.793	1.764	Cheung <i>et al.</i> , (2021)
	VCC2	Users frequently communicate their needs and preferences to Traveloka.	0.809	1.820	
	VCC3	Problems experienced by users are often resolved collaboratively with Traveloka.	0.741	1.648	
	VCC4	Users actively participate when Traveloka develops new services or features.	0.708	1.526	
	VCC5	Traveloka encourages users to participate in creating solutions collaboratively	0.746	1.582	

Notes: * $p > 0.70$; ** $p \leq 3.3$

Source: Processed data by the authors (2026)

The measurement model assessment indicates that all indicators meet the validity and reliability criteria, confirming their suitability for further analysis.

Table 3. Validity and Reliability Test

Variable	Cronbach's Alpha*	Composite Reliability**	AVE***
AI-EP	0.754	0.765	0.669
PI	0.793	0.792	0.617
PP	0.867	0.897	0.648
VCC	0.817	0.824	0.578

Notes: * $p > 0.70$; ** $p > 0.70$; * $p > 0.50$

Source: Processed data by the authors (2026)

The discriminant validity assessment revealed that all HTMT values met the recommended threshold, confirming the distinctiveness of the constructs and supporting their suitability for further analysis.

Table 4. HTMT

Variable	AI-EP	PI	PP	VCC
AI-EP				
PI	0.849			
PP	0.290	0.285		
VCC	0.677	0.555	0.252	

Notes: $p < 0.9$

Source: Processed data by the authors (2026)

Based on the results of the Fornell-Larcker test, the square root of the AVE value for each construct is greater than the correlation values among other constructs. Therefore, it can be concluded that all variables have satisfied discriminant validity and are appropriate for use in this study.

Table 5. Fornell-Larcker Criterion

Variable	AI-EP	PI	PP	VCC
AI-EP	0.818			
PI	0.661	0.785		
PP	0.248	0.244	0.805	
VCC	0.542	0.454	0.232	0.760

Notes: Square root of AVE > inter-construct correlations indicate discriminant validity.

Source: Processed data by the authors (2026)

The structural model also demonstrates good explanatory power for the endogenous variables, as indicated by the R-square values presented below.

Table 6. R-Square Values

Endogenous Variable	R ² *	Description
PI	0.436	Moderate
PP	0.062	Weak
VCC	0.318	Moderate

Notes: *p > 0.75 = strong; > 0.50 = moderate; > 0.25 = weak

Source: Processed data by the authors (2026)

The first finding indicates that AI-enabled personalization has a significant effect on perceived interactivity because recommendations and services that align with user preferences are able to create more responsive and engaging interaction experiences. In addition, AI-enabled personalization also has a significant effect on perceived personalization, as AI technology is capable of tailoring content, promotions, and recommendations according to the needs of each user. The significant effect of AI-enabled personalization on value co-creation demonstrates that relevant service experiences encourage users to become more engaged in the process of using the Traveloka platform.

Meanwhile, perceived interactivity does not have a significant effect on value co-creation because the interactions provided on the platform have not fully encouraged users to actively participate in creating shared value. Perceived personalization also does not have a significant effect on value co-creation because the personalization perceived by users is not yet strong enough to enhance user involvement in the value co-creation process. These findings are supported by the hypothesis testing results presented below.

Table 7. Hypothesis Testing Results

Variable Relationship	Coefficient	T-Statistics*	P-values**	Result
AI-EP → PI	0.661	14.968	0.000	Significant
AI-EP → PP	0.248	3.548	0.000	Significant
AI-EP → VCC	0.416	3.947	0.000	Significant
PI → VCC	0.157	1.545	0.123	Not Significant
PP → VCC	0.090	1.359	0.174	Not Significant

Notes: *p > 1.9; **p < 0.05 = Significant

Source: Processed data by the authors (2026)

4.2 Discussion

4.2.1 AI-Enabled Personalization Positively Influences Perceived Interactivity

AI-enabled personalization is defined as the capability of artificial intelligence-based systems to tailor services, recommendations, and information according to users' preferences and behaviors automatically and in real time. In the context of OTAs such as Traveloka, the implementation of AI-enabled personalization can enhance perceived interactivity because users perceive that the platform is capable of responding to their needs quickly, relevantly, and personally throughout the service usage process.

The hypothesis testing results indicate that AI-enabled personalization has a positive and significant effect on perceived interactivity; therefore, the research hypothesis is accepted. This finding highlights the important role of AI technologies in shaping interactive user experiences

within OTA platforms. Specifically, among Generation Z Traveloka users, personalized recommendations generated through AI algorithms appear to enhance perceptions of interaction by providing content, travel options, and promotional offers that closely match individual preferences and browsing behavior. Given that Generation Z has grown up in a highly digitalized environment, they tend to expect platforms to respond quickly and accurately to their needs. As a result, AI-enabled personalization may create a sense of two-way interaction between users and the platform, even in the absence of direct human involvement. In the Traveloka context, the ability of AI systems to continuously adapt recommendations and provide relevant travel information in real time contributes to users' perceptions that the platform is responsive and attentive to their needs. Therefore, AI-enabled personalization serves not only as a technological feature but also as a mechanism that strengthens perceived interactivity among Generation Z users.

The findings of this study are consistent with the research conducted by Wang et al. (2025), which stated that personalization in AI systems plays an important role in enhancing users' perceived interactivity. Furthermore, (Li et al., 2024) explained that AI-based personalization is capable of improving interaction quality and user engagement with digital services.

4.2.2 AI-Enabled Personalization Positively Influences Perceived Personalization

AI-enabled personalization is defined as the use of artificial intelligence technology to automatically analyse user data in order to deliver services that align with individual needs and preferences. In the context of OTAs such as Traveloka, AI technology is utilized to learn users' search patterns, booking histories, and travel preferences, enabling the system to provide relevant hotel recommendations, flight tickets, and promotional offers. This condition encourages the formation of perceived personalization, namely users' perceptions that the platform is capable of delivering personalized service experiences that match their needs. The more accurately the AI system understands user preferences, the higher the level of personalization perceived by users when using the Traveloka platform.

The results of the hypothesis testing are the basis for the following conclusions, AI-enabled personalization has been proven to have a positive and significant effect on perceived personalization; therefore, the research hypothesis is accepted. This finding suggests that the effectiveness of AI technologies in customizing recommendations, services, and content plays an important role in shaping users' perceptions of personalization within OTA platforms. Specifically, among Generation Z Traveloka users, AI-enabled personalization facilitates the delivery of travel recommendations, accommodation options, promotional offers, and destination information that closely reflect individual preferences and behavioral patterns. Through continuous data processing and machine learning algorithms, Traveloka is able to adapt its services to users' evolving needs, thereby creating a more individualized and relevant travel planning experience. Given that Generation Z has grown up in a highly digitalized environment, they generally expect online platforms to provide personalized and contextually relevant services. As a result, AI-driven personalization may reinforce users' perceptions that the platform understands their unique preferences and travel needs. In the Traveloka context, the ability of AI systems to provide tailored recommendations and customized travel solutions contributes significantly to the formation of perceived personalization among Generation Z users, thereby enhancing the overall quality of their digital travel experience.

The findings of this study are consistent with the research of (Bleier & Eisenbeiss, 2015), which explained that digital technology-based personalization can enhance perceived

personalization through the delivery of relevant content that aligns with user needs. In addition, the study by (Youn & Jin, 2021) also demonstrated that AI technology capable of creating personalized interactions and services can improve users' perceptions of personalization quality in digital services.

4.2.3 Perceived Interactivity Positively Influences Value Co-Creation

Perceived interactivity refers to users' perceptions of a digital platform's ability to provide responsive, fast, and two-way communication that enables users to actively participate throughout the service usage process. In the context of OTAs such as Traveloka, interactivity can be experienced through features such as real-time search, chatbots, user reviews, as well as the ease of providing feedback and customizing travel services. A high level of perceived interactivity can enhance value co-creation, which refers to the process of creating shared value between companies and users through active interaction during service usage. When users perceive that the platform provides quick responses and facilitates their involvement in determining desired services, they tend to participate more actively in the processes of searching, evaluating, and sharing travel experiences on the Traveloka platform.

Based on the hypothesis testing results, perceived interactivity was found to have a positive but statistically insignificant effect on value co-creation. This result suggests that while Generation Z Traveloka users generally respond positively to interactive platform features, such perceptions do not necessarily lead to greater involvement in value co-creation activities. One possible explanation is that Generation Z consumers have become highly accustomed to digitally interactive environments and therefore consider interactivity a basic expectation rather than a distinctive platform capability. Features such as instant responses, personalized recommendations, chatbot assistance, and user-friendly interfaces are increasingly viewed as standard components of digital services. Within the Traveloka ecosystem, Generation Z users are more likely to prioritize functional outcomes, including convenience, efficiency, time savings, and access to relevant travel information, over opportunities for deeper interaction with the platform. Consequently, the presence of interactive features may improve usability and customer experience, but may not be sufficient to encourage users to actively participate in activities that generate value for both themselves and the platform. This finding indicates that value co-creation among Generation Z Traveloka users may depend more on the tangible benefits delivered by the platform, such as effective personalization and decision-support capabilities, than on users' perceptions of interactivity alone.

The findings of this study are supported by the research of (Shen et al., 2020), which found that perceived online interactivity has a positive relationship with value co-creation behavior in online travel communities, although the effect operates through other psychological variables such as online trust. Furthermore, (Zhang et al., 2017) explained that interactive experiences on digital platforms can increase user involvement in the co-creation process; however, the effect depends on users' emotional experiences and the quality of interactions perceived by users.

Contrary to expectations, perceived interactivity was not found to significantly influence value co-creation. A plausible explanation is that Generation Z users prioritize utilitarian outcomes derived from OTA usage, including efficient information processing, convenience, and personalized travel recommendations, over interactive platform characteristics. Previous research has demonstrated that the influence of website interactivity on consumer behavior is often indirect and operates through utilitarian value and perceived usefulness rather than through direct behavioral outcomes (Jeon et al., 2017). In tourism technology settings,

customers tend to evaluate digital services according to their ability to improve decision-making efficiency and service performance, especially when AI-enabled systems are involved (Chi et al., 2022). As digital natives, Generation Z users may perceive interactive functions as basic platform requirements, thereby reducing their capacity to generate additional value or stimulate co-creation behaviors. Consequently, value co-creation in OTA environments may be driven more strongly by the effectiveness of AI-supported personalization and service utility than by perceived interactivity alone.

4.2.4 Perceived Personalization Positively Influences Value Co-Creation

Perceived personalization refers to users' perceptions of a platform's ability to provide services and information that align with their individual needs, preferences, and characteristics. In the context of OTAs such as Traveloka, perceived personalization can be experienced through destination recommendations, hotel suggestions, travel tickets, and promotional offers tailored to users' search histories and preferences. A high level of perceived personalization can encourage value co-creation, which refers to the process of creating shared value between users and companies through users' active involvement in service usage. When users perceive that the services provided are relevant and personalized, they tend to interact more actively, provide feedback, and utilize the various features available on the Traveloka platform.

Based on the hypothesis testing results, perceived personalization was found to have a positive but statistically insignificant effect on value co-creation. This result suggests that although personalized services are positively perceived by Generation Z Traveloka users, such perceptions do not automatically translate into active participation in value co-creation activities. One possible explanation is that Generation Z consumers have become highly familiar with algorithm-driven personalization across various digital ecosystems, making personalized recommendations a routine aspect of their online experience rather than a distinctive source of value. In the context of Traveloka, AI-enabled personalization assists users by delivering tailored travel recommendations, personalized promotional offers, and relevant booking options that improve convenience and decision-making efficiency. However, these functional benefits may primarily enhance service usability and customer satisfaction rather than stimulate collaborative behaviors. As digital natives, Generation Z users often expect platforms to provide personalized content as a standard service feature. Therefore, personalization may no longer generate the novelty or emotional engagement necessary to encourage users to contribute actively to the platform through reviews, feedback, travel experience sharing, or service improvement suggestions. This finding implies that while personalization remains important for improving user experience, value co-creation among Generation Z Traveloka users may require additional relational and engagement mechanisms beyond personalized content delivery alone.

The findings of this study are also consistent with the research of (Zhang et al., 2018), which explained that personalization in digital services can enhance customer experience and consumer engagement; however, its effect on co-creation behaviour is often influenced by other factors such as trust, emotional attachment, and user satisfaction. In addition, the study by (Merhi et al., 2019) found that personalization in digital services improves users' positive perceptions of platforms, but does not always directly increase users' participation in collaborative activities.

Contrary to expectations, perceived personalization was not found to significantly influence value co-creation. A possible explanation is that AI-based personalization has become sufficiently widespread that users no longer perceive it as a unique platform capability.

Instead, personalized recommendations may be interpreted as a basic service expectation that facilitates convenience and improves decision quality. (Bleier et al., 2019) argue that personalization primarily affects customer experience through relevance and usefulness perceptions, whereas behavioral engagement depends on additional factors such as trust, involvement, and relationship quality. Similarly, recent studies on AI-enabled services indicate that consumers tend to value personalization for its efficiency-enhancing benefits rather than for its potential to encourage collaborative participation (Helal et al., 2026). Within the OTA context, this suggests that personalized travel recommendations alone may not be sufficient to stimulate value co-creation among Generation Z users, who are already accustomed to algorithm-driven personalization across various digital platforms. Consequently, value co-creation may require more active forms of engagement beyond personalized content delivery.

4.2.5 AI-Enabled Personalization Positively Influences Value Co-Creation

AI-enabled personalization refers to the use of artificial intelligence technology to analyze user data and behaviour in order to provide services that align with individual needs and preferences. In the context of OTAs such as Traveloka, AI technology is utilized to provide relevant hotel recommendations, travel tickets, tourist destinations, and promotional offers based on users' search histories and activities. The implementation of AI-based personalization can enhance value co-creation, which refers to the process of creating shared value between users and companies through users' active involvement in service usage. When users perceive that the services provided align with their needs, they tend to interact more actively, provide feedback, and utilize the various features available on the Traveloka platform.

Based on the hypothesis testing results, AI-enabled personalization was found to have a positive and significant effect on value co-creation. This finding suggests that AI-driven personalization plays a crucial role in fostering collaborative value creation within OTA platforms. Specifically, among Generation Z Traveloka users, personalized recommendations generated through artificial intelligence appear to create a more relevant, convenient, and user-centered travel planning experience. Through the analysis of user preferences, search histories, booking patterns, and behavioral data, Traveloka is able to provide customized travel solutions that align closely with individual needs. This capability not only enhances perceived usefulness and service relevance but also increases users' willingness to engage more actively with the platform. Unlike perceived interactivity and perceived personalization, which were not found to significantly influence value co-creation, AI-enabled personalization demonstrated a direct and significant contribution to users' co-creation behavior. This finding suggests that Generation Z users may respond more strongly to the tangible benefits generated by AI technologies than to their subjective evaluations of platform characteristics. As digital natives, Generation Z consumers are accustomed to interacting with algorithm-driven systems and tend to value practical outcomes such as convenience, efficiency, and decision support. Consequently, when Traveloka successfully delivers personalized travel experiences through AI, users are more likely to contribute reviews, provide feedback, share travel experiences, and participate in other activities that create mutual value for both the user and the platform. These findings highlight the strategic importance of AI-enabled personalization as a mechanism for strengthening value co-creation within digital travel ecosystems.

The findings of this study are consistent with the research of (Paschen et al., 2020), which explained that AI-based personalization can improve customer experience and customer

engagement through more accurate recommendations, more adaptive communication, and more responsive services. Such intelligently personalized experiences ultimately encourage consumers to interact and contribute more actively within companies' digital ecosystems. Furthermore, (Mariani et al., 2022) found that AI technology in digital services plays an important role in strengthening customer participation and co-creation because users perceive that their needs and preferences are understood more deeply by AI-based systems.

4.2.6 Theoretical Implications of the SOR Mechanism

The findings provide important implications for the application of the Stimulus–Organism–Response (SOR) theory in AI-enabled online travel agency (OTA) platforms. Consistent with the SOR framework, AI-enabled personalization as a stimulus significantly influenced perceived interactivity and perceived personalization as organism variables. However, contrary to theoretical expectations, neither perceived interactivity nor perceived personalization significantly affected value co-creation. These results suggest that the organism–response pathway proposed by the SOR framework may not operate as strongly in AI-driven tourism platforms as previously assumed. Recent studies have suggested that AI technologies can generate value directly by enhancing service efficiency, personalization quality, and decision support, thereby reducing the reliance on intermediary psychological evaluations in explaining customer behavioral outcomes (Helal et al., 2026; Solakis et al., 2024). In digitally mediated tourism environments, consumers may respond directly to the practical benefits delivered by AI systems rather than through affective or cognitive assessments of platform characteristics. Consequently, AI-enabled personalization may function not only as a stimulus but also as a direct driver of value co-creation within OTA ecosystems.

A possible explanation is that Generation Z users, as digital natives, are highly accustomed to personalized and AI-driven digital services, leading them to perceive interactivity and personalization as standard platform features rather than distinctive experiences that encourage co-creation behaviors. Prior studies indicate that Generation Z demonstrates high levels of digital fluency and expects technology-integrated and personalized experiences as part of normal service delivery rather than as exceptional innovations (Araújo-Vila & Toubes, 2026; Ivasciuc et al., 2025). Furthermore, tourism research shows that users increasingly evaluate AI-enabled services based on functional outcomes such as efficiency, convenience, decision quality, and performance expectancy rather than on the level of interaction itself (Chi et al., 2022). In the OTA context, users are primarily focused on obtaining relevant recommendations, reducing search effort, and facilitating travel decisions. Consequently, the functional value delivered by AI-enabled personalization may be more influential in motivating value co-creation than users' subjective perceptions of interactivity and personalization.

5. Conclusion and Suggestion

5.1 Conclusion

The purpose of this study is to evaluate the effect of AI-enabled personalization on value co-creation among Generation Z users of Traveloka in Indonesia, with perceived interactivity and perceived personalization serving as intervening variables. The results confirm that AI-enabled personalization has a positive and significant effect on perceived interactivity, perceived personalization, and value co-creation. These findings indicate that the capability of artificial intelligence technology to provide recommendations and services that align with user

preferences is able to enhance interaction experiences and user engagement in the use of OTA platforms.

In addition, perceived interactivity and perceived personalization were found to have positive effects on value co-creation; however, these effects were not statistically significant. This finding suggests that although users perceive the presence of interactivity and personalization on the Traveloka platform, these conditions are not yet strong enough to encourage users' active involvement in the process of creating shared value. Therefore, AI-enabled personalization emerges as the primary factor that directly enhances value co-creation among Generation Z users within the context of OTA services provided by Traveloka.

Theoretically, this study supports the application of the Stimulus-Organism-Response (SOR) theory, in which AI-enabled personalization acts as a stimulus that influences users' internal responses in the form of perceived interactivity and perceived personalization, which subsequently encourage behavioral responses in the form of value co-creation. This study also provides an empirical contribution to the development of literature regarding the implementation of artificial intelligence in the OTA industry, particularly concerning the behavior of Generation Z users in Indonesia.

5.2 Suggestion

Referring to the findings of this study, OTA companies such as Traveloka are recommended to continuously develop AI-enabled personalization technologies in order to create service experiences that are more relevant, adaptive, and aligned with user needs. The development of user preference-based recommendation features, personalized promotions, and more responsive service systems can enhance user engagement and strengthen the value co-creation process on digital platforms.

In addition, companies should improve the quality of digital interactions so that users not only perceive personalization, but are also encouraged to actively participate by providing feedback, reviews, and sharing travel experiences. Strengthening aspects of emotional engagement and customer trust is also important, as these factors have the potential to reinforce the relationship between perceived interactivity, perceived personalization, and value co-creation.

For future researchers, this study may be further developed by incorporating additional variables such as customer engagement, trust, satisfaction, or emotional attachment in order to obtain a more comprehensive understanding of AI-based OTA user behavior. Future studies may also expand the research objects to other OTA platforms or employ longitudinal approaches to examine changes in user behavior more deeply alongside the advancement of artificial intelligence technology.

6. Limitations and Future Research

Despite its contributions, this study is subject to several limitations that need to be acknowledged when evaluating the results.

- a. This study focuses only on Generation Z users of the Traveloka platform; therefore, the findings cannot yet be generalized to other generational groups or other OTA platforms. The behavioral characteristics of Generation Z, which are closely associated with digital technology, may result in perceptions and experiences that differ from those of other age groups.
- b. This study employs a cross-sectional approach, with data collected during a single period of time. Consequently, the study is unable to capture dynamic changes in user behavior

over time alongside the development of artificial intelligence technology and shifts in consumer preferences in the use of digital services.

- c. The scope of this study is confined to examining the relationships among AI-enabled personalization, perceived interactivity, perceived personalization, and value co-creation. Consequently, other relevant determinants that could affect value co-creation within digital service platforms were beyond the scope of this research. Constructs including customer trust, customer engagement, satisfaction, emotional attachment, and perceived usefulness should be considered in future research to provide a more comprehensive understanding of the factors driving value co-creation.

Future studies should expand the current research framework by including users from multiple OTA platforms and examining differences across generational cohorts to improve the generalizability of the findings. A longitudinal perspective is also recommended to capture the dynamic nature of users' attitudes and behavioral responses toward AI-enabled technologies over time. Moreover, integrating constructs such as trust, customer engagement, loyalty, and emotional experience may enrich the proposed model and provide a more comprehensive explanation of value co-creation in AI-driven digital service settings.

Declaration of AI and AI-assisted technologies in the writing process

During the preparation of this work, the author(s) used ChatGPT in order to assist with translation, data result interpretation, and paraphrasing. Following the utilization of the aforementioned instrument, the author(s) undertook a meticulous review and refinement of the content, assuming full responsibility for the publication's content.

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