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Researching How AI Works Marketing Influence Trust Consumers In Two Culture Different

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ABSTRACT

The rapid advancement of artificial intelligence (AI) in digital marketing presents new challenges in understanding consumer trust across cultural contexts. In a globally connected environment, it is essential to examine how cultural values influence consumer perceptions of AI use, particularly regarding privacy, personalization, and transparency. This study investigates the impact of AI-driven marketing on consumer trust in two contrasting cultures: the individualistic culture of the United States and the collectivistic culture of Indonesia. Using a quantitative survey approach, data were collected from 400 respondents, evenly divided between both countries. A closed-ended questionnaire with Likert-scale items measured perceptions of trust, AI transparency, and cultural values. Data analysis using Structural Equation Modeling (SEM) revealed that AI positively affects consumer trust, but the relationship is significantly mediated by cultural orientation. U.S. consumers placed greater emphasis on personalization and data control, while Indonesian consumers were more influenced by social approval and institutional trust. These findings highlight the need for global marketers to tailor AI-based strategies to align with cultural expectations. Understanding cultural mediators of trust can enhance the effectiveness of AI-driven personalization while maintaining ethical and transparent practices across diverse markets.

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1. INTRODUCTION

The advancement of artificial intelligence (AI) has transformed the landscape of digital marketing, enabling companies to engage with consumers through hyper-personalized ads, automated chatbots, and real-time data analysis (Chatterjee et al., 2021; Davenport et al., 2020; Kumar et al., 2019). These innovations allow marketing strategies to become more adaptive, predictive, and efficient. However, the integration of AI also raises complex psychological and ethical challenges—particularly around consumer trust in automated systems (Sterne, 2017; Araujo et al., 2020; Wilson & Daugherty, 2018).

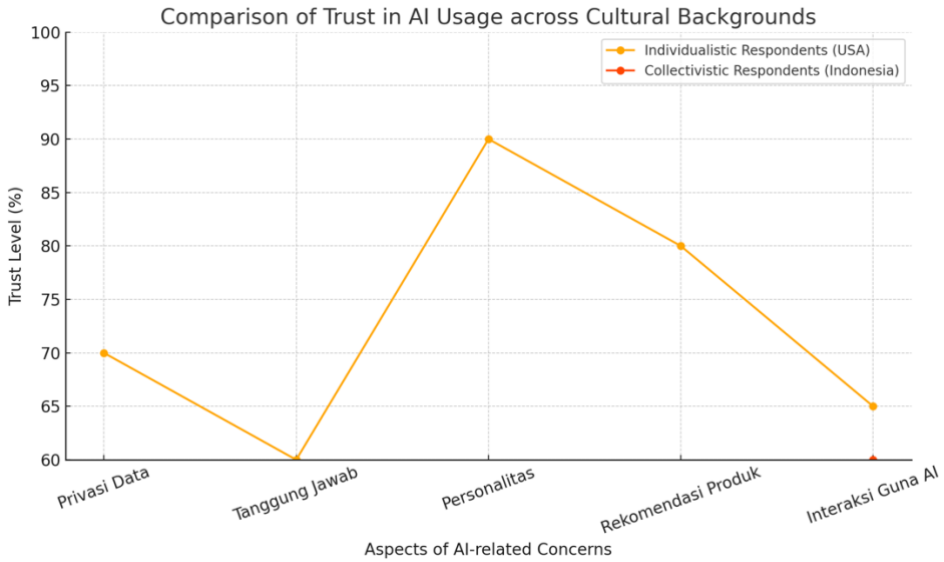

Figure 1. Comparison Trust towards AI in Marketing between Culture

Trust remains a foundational element in building consumer loyalty and sustaining long-term marketing effectiveness. While AI systems offer efficiency, their perceived opaqueness in decision-making can provoke concerns around data privacy, personalization bias, and algorithmic accountability. These concerns are further amplified in multicultural contexts, where perceptions of technology and trust are culturally mediated (Huang & Rust, 2021; Sundar, 2020; Hofstede, 2011).

In the age of globalization, businesses must recognize that AI-based marketing approaches cannot be universally applied across cultural boundaries. Cultural values strongly influence how consumers interpret the transparency, fairness, and intent of AI-driven interactions (Chen et al., 2021; Belanche et al., 2021). According to Hofstede's cultural dimensions theory, individualistic cultures (e.g., the United States) prioritize autonomy, data control, and personalization, while collectivistic cultures (e.g., Indonesia) emphasize social harmony, institutional trust, and group-based consensus (Triandis, 1995; Kim & Markus, 1999; Hofstede Insights, 2023).

As illustrated in Figure 1, trust in AI usage varies across cultural backgrounds, with U.S. respondents expressing higher trust in personalization and data control, whereas Indonesian respondents exhibit greater trust in AI when it is framed through social proof and institutional endorsement. These differences suggest that cultural orientation moderates the relationship between AI deployment and consumer trust, a dimension that is often overlooked in global marketing strategies.

While prior studies have investigated consumer trust in AI, most have done so within isolated cultural contexts. For example, Luo et al. (2021) emphasized transparency as a driver of trust but limited their scope to Western markets, while Choi et al. (2022) explored AI trust in South Korea without conducting cross-cultural comparison. This reveals a critical research gap: the lack of cross-cultural, comparative studies that examine how cultural values influence consumer trust in AI-driven marketing systems.

The novelty of this study lies in its explicit integration of cultural frameworks with AI marketing practices. By comparing two culturally distinct nations—Indonesia (collectivistic) and the United States (individualistic)—this study offers new insights into

how global companies can better tailor AI strategies to meet local cultural expectations (Dwivedi et al., 2021; Liu et al., 2020; Tang et al., 2022).

Study This aim to : (1) identify how far is AI in marketing influence trust consumers in two culture different , (2) analyze difference perception trust based on mark culture , and (3) formulate sensitive AI marketing strategy recommendations culture for the global market.

2. METHOD

This study adopts a comparative quantitative approach with a cross-cultural survey design to examine how artificial intelligence (AI) in marketing influences consumer trust across two distinct cultural contexts: an individualistic culture (United States) and a collectivistic culture (Indonesia). This design enables cross-national comparison to assess cultural mediation in consumer trust formation toward AI-enabled marketing.

The target population consisted of active online consumers who had encountered AI-based marketing interactions through e-commerce platforms, brand websites, or social media. The study employed purposive sampling with the following inclusion criteria:

1. Aged 18–50 years;
2. Had made at least one online purchase within the last six months;
3. Had prior experience interacting with AI-based marketing tools such as automated recommendations, chatbots, or personalized advertising.

A total of 400 respondents participated in the survey—200 from Indonesia and 200 from the United States. To ensure cultural validity, recruitment was conducted through online consumer forums, university email networks, and social media advertisements. Demographic quotas were set to maintain balance across gender, age groups, and educational levels within each country sample.

The instrument used was a structured, closed-ended questionnaire adapted from validated measures of AI trust, transparency, and perceived personalization (Belanche et al., 2021; Chatterjee et al., 2021). To ensure cross-cultural equivalence, the questionnaire underwent a rigorous translation-back translation process, followed by cultural adaptation and pilot testing (n=30 per country) to refine ambiguous terms and ensure semantic accuracy.

The survey consisted of three main constructs measured on a five-point Likert scale:

- Perceived Trust in AI (e.g., safety, reliability, credibility),
- Cultural Orientation (adapted from Hofstede's individualism-collectivism scale),
- Perception of AI Transparency and Personalization.

Data collection was conducted online over 30 days using Google Forms (Indonesia) and Qualtrics (United States). Participation was voluntary and anonymized, with digital consent obtained.

Data analysis employed Structural Equation Modeling (SEM) using AMOS and SPSS software. SEM was chosen to test the relationships between latent variables (AI perceptions, cultural values, and consumer trust), assess model fit, and examine mediation effects of cultural orientation.

To mitigate potential bias, the study implemented:

- Attention checks to detect low-effort responses,
- Balanced recruitment sources to reduce urban-educated sample dominance,
- Country-specific dissemination strategies to reach culturally diverse participant pools.

This methodology provides a robust framework for understanding how cultural dimensions shape consumer trust in AI-based marketing.

3. RESULTS AND DISCUSSION

Differences in Consumer Perceptions of Trust in AI Across Cultures

individualistic cultures (the US) have higher trust scores on personalization and privacy, while consumers from collectivistic cultures (Indonesia) have higher trust scores on AI interaction and product recommendations. This indicates that cultural value preferences have a significant influence on the dimension of trust in technology (Hofstede , 2011; Triandis , 1995; Kim & Markus, 1999).

Table 1. Average Dimensions of Consumer Trust in AI Based on Culture

Dimensions of Trust	AS (Individualistic)	Indonesia (Collectivistic)
Privacy	4.2	3.7
Transparency	4.0	3.8
Personalization	4.5	3.9
AI Interaction	3.9	4.2
Product Recommendations	4.3	4.1

As shown in Table 1, the highest trust dimensions for American consumers are Personalization (4.5) and Product Recommendations (4.3), indicating trust in AI that can meet individual needs. Meanwhile, Indonesian consumers place greater value on AI Interaction (4.2) and Product Recommendations (4.1), indicating the importance of meaningful interactions and a sense of collective trust in technology (Zhang & Lin , 2019; Chatterjee et al. , 2021; Liu et et al. , 2020).

This preference is in line with Hofstede's theory of cultural values, which states that individualistic cultures value autonomy more in decision-making, while collectivistic cultures rely more on group opinion and social legitimacy (Hofstede , 2017; Yoon et et al. , 2020; Dwivedi et et al. , 2021).

Transparency and Privacy as Determinants of Trust

Transparency and privacy play a crucial role in shaping trust, particularly in countries with individualistic cultures . In this study, US consumers demonstrated greater sensitivity to the extent to which AI algorithms explain their decision-making processes and use of personal data (Araujo et al. et al. , 2020; Belanche et et al. , 2021; Sterne , 2017).

In contrast, Indonesian consumers show greater tolerance for ambiguity in data use as long as the technology can provide tangible benefits in the shopping experience (Chen et et al. , 2021; Choi et al. , 2022; Huang & Rust , 2021). This shows that expectations for transparency are highly dependent on the context of collective or individual values.

The implication of these findings is that global companies should adjust their communication strategies, emphasizing transparency to Western consumers and the reliability of social benefits to Eastern consumers (Sundar , 2020; Wilson & Daugherty , 2018; Kumar et et al. , 2019).

The Influence of Culture on Personalization Effectiveness

One of AI's key contributions to marketing is its ability to personalize at scale. However, this study's findings suggest that the effects of personalization are heavily influenced by cultural values. US consumers respond very positively to personalization because it aligns with their values of autonomy and individual preferences (Davenport, 2017). et al. , 2020; Luo et al. , 2021; Tang et et al. , 2022).

On the other hand, personalization does not significantly increase Indonesian consumer trust. This is due to the perception that collective preferences and social conformity are more important than individual conformity (Triandis , 1995; Zhang & Lin , 2019; Kim & Markus, 1999).

This finding emphasizes the need for differentiation of AI-based marketing strategies according to the target cultural values, so that algorithmic bias does not occur which reduces the effectiveness of cross-country marketing campaigns (Chatterjee et al. , 2021; Hofstede , 2011; Liu et et al. , 2020).

Moderation of Cultural Values in the SEM Model

Multigroup SEM analysis showed that cultural values moderate the relationship between perceptions of AI and consumer trust. In the individualistic group , the effect of AI on trust was significant in the transparency and personalization pathways . Meanwhile, in the collectivistic group , a strong relationship was found in the social recommendation and AI-based interaction pathways (Yoon et et al. , 2020; Belanche et al. , 2021; Huang & Rust , 2021).

This indicates that consumers' interpretations of technological interactions differ structurally between the two cultures, and not just at the perceptual level (Dwivedi et et al. , 2021; Hofstede Insights , 2023; Araujo et al. , 2020). The SEM model used produced a good model fit value (CFI = 0.94; RMSEA = 0.05), which indicates that the tested model has a strong empirical fit with the data obtained. from both countries.

4. CONCLUSION

This study successfully revealed that the use of artificial intelligence (AI) in marketing significantly influences consumer trust, but this effect is highly dependent on the consumer's cultural background. Consumers from individualistic cultures such as the United States show a higher level of trust in AI if the system is able to ensure process transparency, maintain data privacy, and provide a strong personalized experience. Conversely, consumers from collectivistic cultures such as Indonesia are more influenced by the effectiveness of automated interactions and social recommendations, which are perceived to strengthen trust in institutions or brands that use AI. These findings indicate that differences in cultural values not only moderate perceptions of AI but also structurally shape consumer trust pathways. SEM analysis confirms that dimensions such as personalization , privacy, and transparency are more relevant in individualistic contexts , while collectivists respond more to community-based dimensions such as social recommendations and AI-based interactions. Therefore, AI-based marketing strategies that are applied uniformly without considering cultural context can create perceptual biases and weaken campaign effectiveness. This research provides an important contribution for global marketers to develop AI-based approaches that are not only technologically sophisticated but also culturally sensitive.

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