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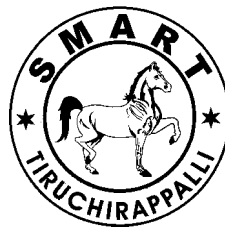
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## DETERMINANTS OF TRUST IN AI-POWERED ADVERTISING IN SAUDI ARABIA: EXAMINING THE ROLE OF CONSUMER ENGAGEMENT AND EMOTIONAL RESPONSE AS MEDIATORS

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### Abstract

*This study examines key determinants of trust in AI-powered advertising, focusing on perceived usefulness, AI familiarity, perceived risk, perceived ease of use, and ad transparency. Grounded in the Technology Acceptance Model (TAM) and Social Exchange Theory (SET), the study proposes a conceptual model, assessing both direct effects on trust and indirect effects via consumer engagement and emotional response. The model was tested, using Structural Equation Modelling (SEM) on data from a diverse sample of digital consumers, allowing simultaneous analysis of direct and mediated relationships. Findings revealed that perceived usefulness, AI familiarity, perceived ease of use, and ad transparency did positively influence trust while perceived risk exercised negative effect. Consumer engagement mediated the relationship between perceived usefulness and trust whereas emotional response mediated the link between ad transparency and trust. The study advances theoretical understanding of trust formation in AI advertising and offers practical insights for marketers, seeking to build trust through transparency and engagement. Future research may extend this framework across varied digital contexts.*

**Keywords:** Trust, AI-powered advertising, Saudi Arabia, Consumer engagement, Emotional response, Perceived usefulness, Ad transparency, SEM, Technology Acceptance Model (TAM).

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### 1. Introduction

Artificial Intelligence (AI) has rapidly permeated contemporary marketing, fundamentally transforming how brands interact

with consumers (Jo, 2023). A key development is AI-generated personalised advertising (AIGPA), which employs advanced machine-learning algorithms, to deliver highly tailored and

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contextually relevant content (**Arango, Singaraju, & Niininen, 2023**). Unlike traditional advertising, AIGPA leverages real-time consumer data to generate customised messages, thereby enhancing engagement and deepening consumer relationships (**Campbell et al., 2022**). Despite its potential, AIGPA raises critical concerns regarding consumer trust. Trust is a multidimensional construct, encompassing perceived credibility, reliability, and the willingness to rely on advertising content (**Soh, Reid, & King, 2009**). In AI-driven advertising, trust becomes particularly salient due to heightened concerns surrounding data privacy and algorithmic decision-making (**Ognyanova, 2019**). In this context, trust reflects consumers' confidence that AI-generated advertisements provide reliable and useful information while adequately protecting personal data (**Liu, 2021**).

Perceived usefulness is a central determinant of trust in AIGPA. Grounded in the TAM, perceived usefulness is a key predictor of technology adoption (**Venkatesh & Davis, 2000**). When consumers perceive AI-generated advertisements to be valuable, their trust in the content increases (**Glikson & Woolley, 2020**). Similarly, AI familiarity enhances trust, as prior experience with AI applications tends to foster more favourable attitudes toward AI-generated outputs (**Horowitz et al., 2024**). Given the rapid advancement of generative AI in advertising, identifying the drivers of trust in AIGPA is imperative. This study examines perceived usefulness, AI familiarity, perceived risk, perceived ease of use, ad transparency, consumer engagement, and emotional response to develop a comprehensive model of trust formation. Using SEM, the study empirically tested the proposed hypotheses and offers insights into optimising AI-generated advertising to enhance consumer trust and acceptance.

Figure-1 presents the conceptual model, illustrating the hypothesised relationships among the determinants of trust in AI-powered advertising.

## 2. Review of Literature and Hypotheses Development

The integration of AI into digital advertising has transformed brand–consumer interactions by enabling highly personalised and interactive content (**Campbell et al., 2022**). Through data analytics and machine learning, AI-powered advertising delivers tailored messages that enhance engagement and strengthen brand connections (**Belanche et al., 2019**). However, fostering consumer trust remains a major challenge, as trust determines consumers' willingness to interact with AI-driven content (**Soh, Reid, & King, 2009; Glikson & Woolley, 2020**). Recent studies have examined trust formation in AI advertising from both cognitive and affective perspectives. **Feng and Kim (2025)** and **Lee et al. (2024)** show that perceived usefulness, ease of use, and transparency directly enhance trust while emotional engagement reinforces this effect. Similarly, **Xia et al. (2024)** and **Kumar et al. (2025)** find that familiarity with AI applications reduces perceived risk and increases acceptance. Building on these insights and grounded in the TAM and SET, this study examined both functional and emotional determinants of trust in AI-powered advertising.

Perceived usefulness is a central construct within the TAM, defined as the degree to which individuals believe that using a particular system enhances their performance (**Davis, 1989**). In the context of AI-powered advertising, perceived usefulness refers to consumers' perceptions that AI-generated content enhances their decision-making or provides relevant information. Studies indicate that when users perceive AI-powered

ads as beneficial and informative, they are more inclined to trust the content, as it aligns with their expectations of convenience and efficiency (Glikson & Woolley, 2020). Moreover, the relevance and personalisation, offered by AI-driven advertising, have been shown to influence consumer attitudes and trust positively (Campbell et al., 2022). For instance, consumers exposed to AI-powered recommendations that closely match their preferences, demonstrate higher satisfaction and trust levels (Belanche et al., 2019). Hence the following hypothesis was proposed:

**H1: Perceived usefulness positively influences trust in AI-powered advertising.**

AI familiarity refers to the extent of consumers' prior experience and knowledge related to AI technologies (Hoff & Bashir, 2015). Familiarity with AI reduces uncertainty and fosters a sense of control, leading to increased acceptance and trust (Glikson & Woolley, 2020). As AI technologies become more embedded in everyday digital interactions, consumers who frequently encounter AI applications, tend to develop a nuanced understanding, reducing perceived risks (Horowitz et al., 2024). Previous studies have consistently found that familiarity with technological innovations correlates positively with trust, as users attribute higher credibility to systems they understand (Venkatesh & Bala, 2008). Therefore, it was hypothesized:

**H2: AI familiarity positively influences trust in AI-powered advertising.**

Perceived risk, a critical determinant of consumer behaviour, denotes the potential negative outcomes associated with using a particular technology (Featherman & Pavlou, 2003). In the context of AI-powered advertising, perceived risk primarily involves concerns about data privacy, algorithmic biases, and the potential

misuse of personal information. High levels of perceived risk can significantly undermine consumer trust, as users become apprehensive about how their data would be collected, processed, and used. For instance, AI-driven ads, that lack transparency about data usage, may be perceived as invasive, leading to scepticism and distrust (Hoff & Bashir, 2015). Moreover, studies have shown that when consumers feel their privacy was compromised, they are more likely to disengage from AI-powered marketing initiatives (Glikson & Woolley, 2020). Hence the following hypothesis was formulated:

**H3: Perceived risk negatively influences trust in AI-powered advertising.**

Perceived ease of use, another fundamental construct from TAM, refers to the effortlessness associated with using a particular technology (Davis, 1989). In AI advertising contexts, perceived ease of use reflects how intuitively consumers can interact with AI-generated content. When consumers perceive AI-powered ads to be user-friendly and requiring minimal effort to understand or respond to, their likelihood of trusting such ads increases (Venkatesh & Bala, 2008). Studies on human-computer interaction indicate that ease of use not only improves user satisfaction but also reduces frustration, fostering positive attitudes toward technology (Hoff & Bashir, 2015). Consequently, AI advertisements that are seamlessly integrated into digital platforms, tend to elicit greater trust, as consumers appreciate the convenience and intuitive design (Campbell et al., 2022). Therefore, we propose:

**H4: Perceived ease of use positively influences trust in AI-powered advertising.**

Ad transparency refers to the degree to which AI-generated advertisements disclose how data were collected and processed. Transparency is crucial in AI-driven marketing,

as it significantly impacts perceived integrity and credibility. Consumers increasingly demand that brands disclose how AI algorithms personalise advertisements, particularly when personal data were involved (Jin et al., 2016). When companies provide transparent information about their AI processes, consumers are more likely to trust the brand, as this signals honesty and accountability (Campbell et al., 2022). Hence it is hypothesized:

**H5: Ad transparency positively influences trust in AI-powered advertising.**

Consumer engagement, defined as the intensity of consumer participation and connection with advertisements, is critical to fostering trust (Brodie et al., 2011). AI-powered ads that are perceived as useful, often generate high engagement, as users feel personally addressed and valued (Escalas, 2004). Engaging content captures attention, elicits cognitive involvement, and fosters a positive disposition towards the advertisement, thereby enhancing trust (Green & Brock, 2000). Consequently, the study posited:

**H6: Consumer engagement mediates the relationship between perceived usefulness and trust in AI-powered advertising.**

An emotional response, or an affective reaction to advertising content, significantly influences consumer attitudes and trust (Poels & Dewitte, 2006). Transparent AI ads often evoke positive emotions, leading to a favourable evaluation of both the message and the brand (Campbell et al., 2022). When emotional appeal aligns with user expectations, it not only enhances trust but also encourages positive behavioural intentions. Hence the study hypothesised:

**H7: Emotional response mediates the relationship between ad transparency and trust in AI-powered advertising.**

### 3. Statement of the Problem

Despite the rapid adoption of AI-powered advertising, how consumers perceive and develop trust in such practices remains underexplored, particularly in digitally transforming markets such as Saudi Arabia. Although AI enhances personalisation, targeting efficiency, and decision support, it simultaneously raises concerns about privacy, transparency, algorithmic control, and perceived risk, positioning trust as a central challenge for marketers and policymakers. Existing research has largely focused on the technical and performance-oriented capabilities of AI systems, often overlooking the psychological and perceptual foundations through which consumers evaluate and respond to AI-driven advertising content (Glikson & Woolley, 2020). Moreover, there is limited empirical understanding of how functional attributes of AI-powered advertising translate into consumer trust through underlying cognitive and emotional mechanisms. In particular, the mediating roles of consumer engagement and emotional response in shaping trust, remain insufficiently examined. Addressing this gap, the present study examined the antecedents and mediators of trust in AI-powered advertising through an integrated technological–emotional framework, offering context-specific insights from Saudi Arabia.

### 4. Need for the Study

AI-powered advertising is central to digital marketing, and yet consumer trust remains fragile. Prior research has largely emphasised technical efficiency, offering limited insight into consumers' perceptions and emotional

responses. As trust is essential for effectiveness, this study examined how cognitive evaluations (e.g., usefulness, ease of use, familiarity, risk, and transparency) interact with emotional engagement to shape trust. In doing so, it extends technology adoption theories and offers actionable guidance for designing credible and trustworthy AI-driven campaigns.

## 5. Objective of the Study

The primary objective of this study was to examine the factors influencing consumer trust in AI-powered advertising. By integrating insights from the TAM and trust literature, the study aims to empirically test how perceived usefulness, AI familiarity, perceived risk, perceived ease of use, and ad transparency impact consumer trust in AI-generated advertising (Venkatesh & Davis, 2000; Campbell et al., 2022). Further, the study seeks to examine the mediating roles of consumer engagement and emotional response in shaping trust outcomes.

## 6. Research Methodology

The study employed quantitative research design, using a cross-sectional survey method. The sample consisted of consumers, who were exposed to AI-powered advertising in digital environments.

### 6.1 Sample Selection

A non-probability purposive sampling technique was employed, as the study specifically targeted individuals, with prior exposure to AI-powered advertisements in digital environments. The sampling frame comprised adult consumers residing in Saudi Arabia, who were actively engaged with digital media platforms. Data were collected through a structured online questionnaire, administered via survey distribution platforms. To ensure theoretical adequacy for structural equation modelling, a

minimum sample size threshold of 300 respondents was established, following the recommendations of Hair et al. (2019). Eligibility criteria were clearly defined. Respondents were required to confirm prior interaction with AI-powered advertising within the past six months. This criterion was verified through a mandatory screening question at the beginning of the survey instrument. To enhance data quality and internal validity, multiple procedural safeguards were implemented. The questionnaire incorporated attention-check items to identify careless responding.

Additionally, responses exhibiting straight-lining patterns, excessive missing values, or inconsistent answering behaviour were removed during the data-cleaning phase. A total of 340 responses were initially collected. After applying screening criteria and quality control procedures, 318 valid responses were retained for the final analysis. The demographic profile of the retained sample is presented in Table-2.

### 6.2 Period of Study

The study was conducted in the first half of 2025, covering the period from January to June. This period was deliberately chosen to allow enough time for designing the survey, pre-testing the questionnaire, and collecting responses through online platforms. Surveying within a single, clearly defined time frame, ensured consistency in the conditions under which respondents interacted with AI-powered advertising, thereby reducing potential bias that might arise from temporal variations in digital trends or consumer sentiment.

### 6.3 Sources of Data

The study used both primary and secondary data. Primary data were collected via an online structured questionnaire, administered through Amazon Mechanical Turk (MTurk), with

purposive sampling to ensure that respondents had prior exposure to AI-driven advertising. Data quality was ensured, using attention checks, and incomplete or low-engagement responses were excluded. Secondary sources, including scholarly journals and prior empirical studies, informed the conceptual framework and the adaptation of validated measurement scales.

#### 6.4 Tools used in the Study

The study employed PLS-SEM, using SmartPLS 4, given its suitability for testing complex models with direct and mediated relationships. The measurement model was first evaluated for reliability and validity, with internal consistency, assessed through Cronbach's alpha and Composite Reliability, convergent validity through Average Variance Extracted (AVE), and discriminant validity via the HTMT ratio. Potential common-method bias was addressed by using both procedural remedies (e.g., attention checks and reverse-coded items) and statistical tests, including Harman's single-factor test. The structural model was assessed by using bootstrapping with 5,000 resamples, to estimate path coefficients and their significance. Model fit was evaluated, using the Standardised Root Mean Square Residual (SRMR), with values below 0.08 indicating adequate fit. Collectively, these procedures ensured the robustness and credibility of the findings on consumer trust in AI-powered advertising.

### 7. Data Analysis and Interpretation

#### 7.1 Demographic Characteristics

**Table-2** presents the demographic characteristics of the respondents. The sample reflected a balanced gender distribution and it was predominantly composed of young (59%) and middle-aged consumers (29%), who were among the most active users of digital platforms and AI-powered advertising in Saudi Arabia. The demographic composition revealed that the

respondents were well-positioned to evaluate AI-driven advertising content, thereby supporting the contextual relevance and robustness of the findings.

#### 7.2 Measurement Model Assessment

As shown in Table 1, all constructs demonstrated satisfactory psychometric properties. Factor loadings, for all measurement items, exceeded the recommended threshold of 0.70, indicating strong item reliability. Cronbach's alpha values ranged from 0.76 to 0.89 while composite reliability values exceeded 0.80 across constructs, confirming internal consistency (**Lu et al., 2018**). Convergent validity was established as the Average Variance Extracted (AVE) for all constructs exceeded the minimum criterion of 0.50. In other words, the measurement model was reliable and valid for the subsequent structural analysis. The detailed measurement items, factor loadings, and reliability statistics are reported in Table 1.

#### 7.3 Structural Model Results

The structural model results, reported in **Table-3**, provide clear evidence regarding the acceptance of the proposed hypotheses. Perceived usefulness reported strong and positive effect on trust ( $\beta = 0.42, p < 0.001$ ), thereby supporting H1. This finding revealed that consumers were more likely to trust AI-powered advertisements when they perceived them to be valuable and informative. AI familiarity also reported significant positive influence on trust ( $\beta = 0.37, p < 0.001$ ), thus supporting H2. In other words, prior experience with AI technologies reduced uncertainty and enhanced consumer confidence.

Perceived risk recorded significant negative effect on trust ( $\beta = -0.28, p < 0.001$ ), which supported H3. In other words, privacy and data-misuse concerns could undermine trust in AI-driven advertising. Perceived ease of use

positively influenced trust ( $\beta = 0.33, p < 0.001$ ), thereby supporting H4. This established the importance of intuitive and user-friendly AI advertising interfaces in building consumer trust. Ad transparency exerted strong positive effect on trust ( $\beta = 0.40, p < 0.001$ ), which supported H5, reinforcing the role of disclosure clarity and openness in AI-enabled marketing environments. Overall, all direct hypotheses (H1–H5) were empirically supported. The structural relationships and detailed statistics are summarised in **Table-3**.

#### 7.4 Mediation Analysis

The mediation analysis provides additional insights into the underlying mechanisms of trust formation. Consumer engagement significantly mediated the relationship between perceived usefulness and trust (indirect effect  $\beta = 0.11, p < 0.001$ ), thereby supporting H6 (mediation). In other words, perceived usefulness enhanced trust, both directly and indirectly, through increased consumer engagement. Similarly, emotional response mediated the relationship between ad transparency and trust (indirect effect  $\beta = 0.08, p < 0.001$ ), thus supporting H7 (mediation). This finding revealed the affective pathway through which transparency would strengthen consumer trust in AI-powered advertising. Thus the mediation results established that trust formation in AI-powered advertising operated through both cognitive (usefulness, familiarity, ease of use) and affective (emotional response) mechanisms.

#### 8. Findings of the Study

The structural model results established that the majority of the proposed hypotheses were supported. Perceived usefulness, AI familiarity, perceived ease of use, and ad transparency were found to exert significant positive effects on trust in AI-powered advertising. In contrast, perceived risk demonstrated a significant

negative effect on trust, confirming its role as a barrier to consumer acceptance of AI-driven advertising. Further, consumer engagement was found to mediate the relationship between perceived usefulness and trust while emotional responses strengthened the effect of ad transparency on trust. Substantively, the findings demonstrated that a combination of functional evaluations and affective mechanisms shaped trust in AI-powered advertising. The positive relationship between perceived usefulness and trust reinforced earlier research, emphasising the importance of perceived value in fostering consumer confidence (**Lee et al., 2024**). Consistent with the Technology Acceptance Model, perceived usefulness remained a central determinant of favourable responses toward technology-enabled interactions (**Venkatesh & Davis, 2000**). In AI-powered advertising contexts, advertisements, perceived as valuable and relevant, are more likely to elicit trust, corroborating prior findings in digital advertising research (**Soh, Reid, & King, 2009**).

Similarly, AI familiarity emerged as a significant contributor to trust, demonstrating the importance of consumer awareness and prior experience in shaping perceptions of AI-driven advertising (**Belanche, Casaló, & Flavián, 2019**). Greater familiarity reduced uncertainty and alleviated apprehensions associated with novel technologies, thereby strengthening trust formation. In contrast, perceived risk negatively influenced trust, indicating that concerns, related to data misuse and privacy breaches, continue to undermine consumer confidence in AI-powered advertising (**Shiu et al., 2011**). These results align with broader literature on risk perception in digital environments, where consumers remain cautious about data-driven technologies and their potential implications (**Shiu et al., 2011**). Accordingly, mitigating perceived risk remains essential for

strengthening trust in AI-mediated advertising contexts.

The findings further revealed that perceived ease of use would enhance trust by reducing cognitive effort and facilitating smoother interactions with AI-generated advertising content. This is consistent with prior research, identifying usability as a key driver of favourable technology-related outcomes (Venkatesh & Davis, 2000; Venkatesh et al., 2003). When AI-powered advertisements are intuitive and user-friendly, consumers are more willing to engage with them, thereby reinforcing trust. Ad transparency also plays a critical role in trust formation, as clear and understandable AI processes foster greater consumer confidence (Wojdyski, Evans, & Hoy, 2018). Transparent communication regarding AI-generated content and data usage, signals ethical intent and accountability, increasing receptiveness toward AI-powered advertising. Moreover, the mediating role of consumer engagement suggests that interactive and participatory advertising experiences could enhance the trust-building potential of perceived usefulness (Croes & Bartels, 2021). Likewise, emotional responses function as an affective pathway through which ad transparency strengthens trust, emphasising the emotional dimension of trust formation in AI advertising (Zarouali et al., 2018).

In short, these findings highlight the interplay between cognitive evaluations (usefulness, familiarity, ease of use), transparency perceptions, emotional engagement, and perceived risk in shaping consumer trust in AI-powered advertising. Trust is, therefore, not driven solely by functional attributes but also by affective and risk-related considerations. These insights suggest that fostering trust in AI-powered advertising requires a holistic approach, that simultaneously addresses cognitive

assessments and emotional reassurance. Future research may further examine how contextual factors, such as demographic differences and cultural perceptions, could influence these trust-building processes.

## 9. Suggestions

Based on the findings, marketers, using AI-powered advertising, should prioritise transparency by clearly disclosing the use of AI in content generation and data personalisation. Transparent communication can reduce perceived risk and strengthen consumer trust. Firms should also focus on designing AI-generated advertisements, that are easy to understand and interact with, as usability significantly enhances trust. Enhancing consumer familiarity with AI through explanatory cues and interactive features can further reduce uncertainty. Additionally, organisations should create emotionally engaging AI-driven advertisements, that encourage active consumer participation, as engagement and positive emotional responses amplify trust formation. Policymakers and platform designers may consider establishing ethical guidelines and disclosure standards to promote responsible AI advertising practices.

## 10. Conclusion

The study has demonstrated that trust in AI-powered advertising emerges from a careful balance of rational evaluation and emotional experience. Perceived usefulness, ease of use, familiarity, and transparency were found to strengthen trust whereas perceived risk diminished it. Engagement and emotional response further deepened this process by linking functional value and transparency to more positive consumer perceptions. By drawing on both the TAM and SET, the research contributes to theory while offering clear practice guidance. For marketers, the findings stress that earning

consumer trust requires more than technical efficiency and it depends equally on transparency, simplicity and emotionally engaging communication.

### 11. Limitations of the Study

This study suffered several limitations that warrant consideration. First, the cross-sectional design limited causal inferences, as the relationships identified may evolve. Longitudinal studies are needed to capture changes in consumer trust as AI-powered advertising practices advance. The reliance on self-reported data might have introduced common method bias, despite efforts to mitigate it through validated scales and reverse-coded items. Future research could incorporate objective data, such as behavioural metrics or qualitative insights, to enhance validity. Additionally, the sample primarily consisted of digitally literate consumers, which may limit generalizability to less tech-savvy populations.

### 12. Scope for Further Study

While this study offers important insights into trust in AI-powered advertising, several avenues merit further investigation. Future research should examine contextual moderators such as culture and demographics, as trust perceptions may vary across cultural settings. For example, individualistic cultures may prioritise transparency and usability whereas collectivist cultures may value social endorsement and communal engagement. Longitudinal studies are also needed to capture how trust in AI-powered advertising evolves as consumers gain familiarity with AI technologies, new features emerge, and regulatory environments change. Such designs could reveal whether initial scepticism diminishes with sustained exposure and perceived utility.

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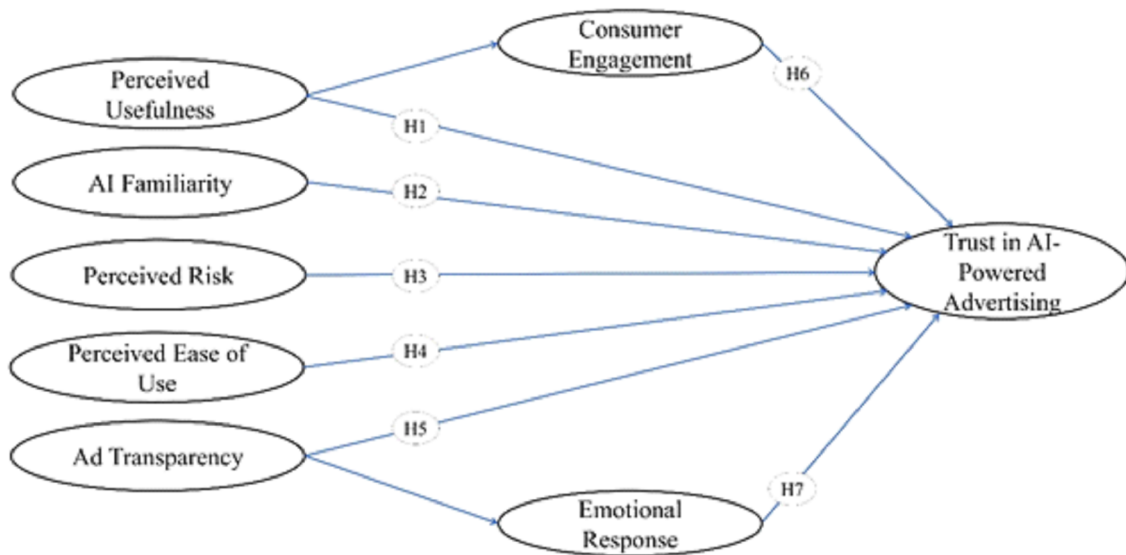
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**Figure-1: Conceptual Model of Determinants of Trust in AI-Powered Advertising**



**Source:** Adapted from Feng and Kim (2025) and Xia et al. (2024)

**Table-1: Measurement Scales and Psychometric Properties of Constructs Used in the Study, which is in the Saudi Arabian context**

Construct	Source	Measurement Items	Factor loadings	Cronbach's Alpha
Trust in AI-Powered Advertising	Soh, Reid, and King (2009)	1. I trust the information provided by AI-powered ads. 2. AI-powered ads are reliable. 3. I feel confident when using AI-powered ads for purchase decisions.	0.88 0.75 0.86	0.82
Perceived Usefulness	Lee et al. (2024)	1. AI-powered advertising provides valuable information. 2. AI-powered advertising helps me make better purchase decisions. 3. AI-powered advertising enhances my shopping experience.	0.88 0.75 0.86	0.79
AI Familiarity	Belanche, Casaló, and Flavián (2019)	1. I have worked with or studied artificial intelligence. 2. I am familiar with AI-powered applications in my daily life. 3. I feel comfortable discussing AI capabilities.	0.88 0.75 0.86	0.76
Perceived Risk	Shiu et al. (2011)	1. I worry about the misuse of personal data in AI-powered ads. 2. I am concerned about the accuracy of AI-generated content. 3. AI-powered advertising may compromise my privacy.	0.88 0.75 0.86	0.80
Perceived Ease of Use	Venkatesh and Davis (2000)	1. Interacting with AI-powered ads is easy. 2. The AI-powered ads are user-friendly. 3. I find it easy to navigate through AI-generated content.	0.88 0.75 0.86	0.89
Ad Transparency	Wojdyski, Evans, and Hoy (2018)	1. The process behind AI-generated personalised ads is clear. 2. I understand how my data is used in AI-powered ads. 3. The ad creation process is transparent.	0.88 0.75 0.86	0.85
Consumer Engagement	Croes and Bartels (2021)	1. I interact frequently with AI-powered ads. 2. I enjoy participating in AI-driven promotional activities. 3. I am actively involved when AI-generated content is relevant.	0.88 0.75 0.86	0.78
Emotional Response	Zarouali et al. (2018)	1. I feel positive emotions when interacting with AI-generated ads. 2. AI-powered ads make me feel happy. 3. I experience excitement when encountering AI-generated content.	0.88 0.75 0.86	0.77

**Source:** Compiled by the author

**Table-2: Demographic Characteristics of Respondents Exposed to AI-Powered Advertising**

Variable	Percentage
<b>Gender</b>	
Male	49%
Female	51%
<b>Age</b>	
18-27	59%
28-37	29%
38-47	12%

Source: Compiled by the author

**Table-3: Structural Model Results Examining Determinants of Consumer Trust in AI-Powered Advertising, which is in the Saudi Arabian context**

Hypothesis	Path	Path Coefficient ( $\beta$ )	Standard Error (SE)	t-value	p-value	Hypothesis Outcome
H1	Perceived Usefulness → Trust	0.42	0.07	6.00	<0.001	Supported
H2	AI Familiarity → Trust	0.37	0.06	6.17	<0.001	Supported
H3	Perceived Risk → Trust	-0.28	0.05	-5.60	<0.001	Supported
H4	Perceived Ease of Use → Trust	0.33	0.06	5.50	<0.001	Supported
H5	Ad Transparency → Trust	0.40	0.06	6.67	<0.001	Supported
H6	Perceived Usefulness → Engagement → Trust	0.18	0.04	4.50	<0.001	Supported (Mediation)
H7	Ad Transparency → Emotional Response → Trust	0.15	0.03	5.00	<0.001	Supported (Mediation)
Indirect	Perceived Usefulness → Engagement → Trust	0.11	0.02	5.50	<0.001	Significant Indirect Effect
Indirect	Ad Transparency → Emotional Response → Trust	0.08	0.02	4.00	<0.001	Significant Indirect Effect

Source: Compiled by the author