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THE IMPACT OF EMOTION AI (AFFECTIVE COMPUTING) IN SOCIAL MEDIA ADVERTISING ON CONSUMER PERCEPTION AND BRAND LOYALTY

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ABSTRACT

The integration of Emotion AI, also known as emotional computing into social media advertising has significantly altered brand-consumer relationships. This study investigates how Emotion AI affects brand loyalty and customer perception on social media platforms. The study explores whether emotionally aware advertising improves user engagement, message relevancy, and emotional resonance by examining how emotion-driven algorithms perceive and react to users' emotional cues. Personalized emotional content greatly enhances customer perception and strengthens brand loyalty, according to research using a mixed-method approach that included consumer surveys and sentiment analysis of targeted ads. However, trust and enduring brand connections are also impacted by ethical issues related to the use of emotional data and apparent manipulation. The study's conclusion emphasizes how Emotion AI has the potential to be a two-edged instrument in contemporary advertising, one that may strengthen ties between brands and consumers while also requiring ethical and transparent deployment techniques.

KEYWORDS: Emotion AI, Social Media Advertising, Consumer Perception, Emotional Engagement, Digital Consumer Behavior.

Introduction:

Advertising has evolved into a highly customized, emotionally charged engagement approach in the digital era, beyond conventional forms and channels, especially on social media. Emotion AI, sometimes referred to as affective computing, is in the front of this revolution. Through behavior, physiological signs, voice patterns, and facial expressions, this new field of artificial intelligence allows robots to recognize, understand, and react to human emotions. Brands are increasingly using emotional intelligence algorithms to create more psychologically tailored and resonant social media ads by utilizing these findings.

The integration of Emotion AI with digital advertising techniques has resulted in a substantial change in the circumstances surrounding consumer-brand interactions. Advertisers may now customize material in immediate time based on consumers' emotional moods, expanding customization and emotional relevance beyond demographics and past purchases. There are serious concerns regarding this technology change's efficacy and moral ramifications: What effects can emotionally evocative advertisements have on consumers' perceptions of trust and authenticity? Do emotionally charged advertising strategies increase brand loyalty or run the danger of being manipulated and receiving negative feedback?

Objectives:

1. To evaluate how consumers, feel about the use of Emotion AI in social media advertising.
2. To investigate how consumers' perceptions of authenticity, trust, and customization in ads are influenced by Emotion AI.
3. To examine how brand recall, customer involvement, and purchase intention are affected by Emotion AI-driven emotional engagement.
4. To explore how Emotion AI advertising affects advocacy and brand loyalty in relation to demographic characteristics.
5. To study customer worries about the psychological, ethical, and privacy ramifications of Emotion AI in advertising.

Research Questions:

1. In what ways are companies incorporating Emotion AI technology into their social media marketing plans at the moment?
2. What effects do Emotion AI-enhanced ads have on customers' opinions of customization, trust, and brand authenticity?
3. What effects does emotion-targeted advertising have on brand recall, purchase intent, and consumer emotional engagement?
4. What effects does emotion AI in advertising have on brand loyalty among various customer segments?
5. How do consumers feel about the use of Emotion AI in social media advertising in terms of ethics, psychology, and privacy?

Review of Literature:

Artificial Intelligence in Digital Marketing and E-Commerce:

Artificial intelligence (AI) is revolutionizing digital marketing and e-commerce, drastically altering how companies interact with customers and deliver value. Businesses can automate decision-making, analyze enormous amounts of customer data, and customize marketing campaigns at scale thanks to AI technology. According to Beyari (2025), e-customer loyalty in the Saudi Arabian e-commerce business is greatly impacted by AI-driven processes including social media exposure and product suggestion algorithms. In a similar vein, Rane et al. stress that AI-driven CRM solutions improve operational effectiveness while fortifying enduring client connections via customization and predictive analytics.

Chatbots, recommendation engines, and sentiment analysis tools are examples of AI applications that enable businesses to react to clients instantly, enhancing customer happiness and service quality. According to Huynh-The et al. (2022), who address AI's fundamental function in virtual and integrated digital platforms, AI also facilitates immersive and engaging experiences in larger digital ecosystems. Research suggests that, rather than being only a technical development, the application of AI in digital marketing is a strategic necessity for preserving competitiveness, improving customer engagement, and fostering loyalty in increasingly data-driven and customer-centric marketplaces.

Social Media Marketing and Brand Performance

Because social media marketing is interactive, engaging, and affordable, it has become an essential part of brand-building initiatives. Brand awareness, brand image, and brand loyalty are all impacted by social media activity, according to earlier research. According to Aguilar et al. (2022), social media platforms' entertainment, engagement, trendiness, advertising, and customisation have a big impact on small online enterprises' brand recognition and loyalty. In a similar vein, Dülek and Saydan emphasize how social media advertisement

awareness improves brand awareness, brand image, and brand attitude, all of which indirectly boost brand loyalty. Huseynov and Abasin (2020) found that while not all social media factors have the same impact, electronic word-of-mouth and community involvement are critical in boosting brand loyalty in fast-moving consumer goods (FMCG) marketplaces. These results suggest that interaction quality, not just visibility, is what determines social media marketing performance. Social media platforms give companies the chance to build online communities, engage in meaningful conversations, and influence positive customer attitudes. Consequently, social media marketing reinforces brand performance and competitive advantage by acting as an essential conduit between brands and customers.

AI-Driven Personalization and Customer Loyalty

In digital contexts, AI-driven customisation is widely acknowledged as a critical factor in determining client pleasure and loyalty. AI systems use data analytics and machine learning algorithms to customize interactions, product recommendations, and content to each customer's preferences. According to Beyari (2025), tailored social media content and AI-based product suggestions greatly increase brand preference and buy intention, which eventually strengthens e-customer loyalty. Additionally, Rane et al. contend that by providing relevant and consistent experiences, customization strengthens emotional bonds between consumers and companies.

Long et al. (2024) show that AI experience strengthens the impact of engagement programs in FMCG and e-commerce settings by moderating the link between consumer involvement and brand loyalty. These results imply that customization improves perceived value and trust, making it both functional and relational. The literature does, however, also provide a warning that customization must be applied morally, taking openness and data protection into consideration. All things considered, AI-driven customization is a potent tool that businesses can use to set themselves apart, strengthen client connections, and foster enduring loyalty in cutthroat digital markets.

Emotion AI and Sentiment Analysis in Marketing

The capacity of sentiment analysis and emotion AI systems to recognize and react to human emotions in digital interactions has drawn more and more attention. According to Yusoff et al. (2023), emotion AI helps marketers to comprehend customers' emotional reactions to material, enabling more emotionally impactful and captivating social media campaigns. Emotion AI increases campaign efficacy and message customisation by examining text, behavioral clues, and face emotions. Cabrera goes on to say that sentiment analysis of social media interactions may determine the emotional tone of user-generated material, offering insightful information about the attitudes and views of consumers.

By using these technologies, businesses may improve brand impression and loyalty by dynamically modifying marketing strategies in response to emotional input. However, as emotion detection systems may misread feelings or be used to unjustly influence customers, issues about accuracy, manipulation, and ethical usage continue to be prevalent. Despite these obstacles, research indicates that emotion AI is a potential development in digital marketing, especially when paired with human supervision and responsible governance. Its use into social media marketing plans may greatly improve consumer interaction and brand attachment.

Purchase Intention, Customer Engagement, and Loyalty:

Two key concepts in comprehending consumer behavior in digital markets are customer involvement and purchasing intention. A thorough approach is presented by Duan et al. (2024) to show how social media advertising enhances consumer loyalty and buy intention in e-commerce systems. Their results verify that customers' receptivity to commercials is highly influenced by pleasure motivation and customer loyalty. In a similar vein, Long et al. (2024) pinpoint a number of elements that favorably impact consumer involvement, which in turn fortifies brand loyalty. These elements include self-congruity, social influence, brand warmth, and social media marketing.

By enhancing the efficacy of engagement tactics through customization and real-time interaction, AI plays a moderating function. All of this research highlight how advertising stimuli and loyalty results are mediated by engagement. Businesses should prioritize relational techniques that promote engagement, connection, and emotional attachment above transactional interactions. The body of research emphasizes how crucial AI-enhanced engagement tactics are for turning customer interest into long-term loyalty and repeat business.

Ethical Considerations and Brand Voice in AI-Enabled Marketing:

Even though AI has many benefits for content production and marketing automation, ethical issues

and brand authenticity are still major worries. According to Murár et al. (2024), AI technologies like ChatGPT can speed up the creation of social media content, but their efficacy depends on how well they connect with corporate identity and brand values. AI-generated material has to be closely watched to guarantee ethical responsibility, consistency, and transparency. In a similar vein, Barhana and Sowmya (2025) emphasize the significance of moral digital marketing techniques, especially with relation to responsible customization and data protection.

Over-reliance on machine learning without human supervision can erode confidence and harm a brand's reputation. According to the research, a balanced strategy that incorporates both human judgment and technical efficiency is necessary for successful AI integration. Long-term brand equity is strengthened by ethical AI use, which also protects customer confidence. In order to guarantee that AI-driven marketing stays genuine, accountable, and in line with stakeholder expectations, firms must implement governance structures.

Research methodology:

Research Methods:

To investigate how consumers view and react to the usage of Emotion AI in social media advertising, this study uses a quantitative research approach. A quantitative method is suitable since it makes it possible to evaluate attitudes, perceptions, and behavioral intents as well as to statistically examine the connections between consumer outcomes like trust, engagement, purchase intention, and brand loyalty and Emotion AI-driven advertising. The study uses a cross-sectional survey approach to gather information from social media users who have seen emotionally or AI-driven ads at one particular moment in time. The goals of assessing customer sentiments, analyzing emotional engagement results, and determining demographic differences in answers are all supported by this approach.

Sample and Population:

Active social media users who are exposed to online ads on sites like Instagram, Facebook, YouTube, and TikTok make up the study's target group. Due to accessibility and the exploratory nature of Emotion AI adoption in advertising, convenience sampling—a non-probability sample technique—is used. To support goal four, which looks at demographic variations in advocacy and brand loyalty, respondents are chosen based on a variety of demographic factors, such as age, gender, income, and education level.

Method of Data Collection:

An online structured questionnaire is used to gather primary data. The questionnaire was created using validated measures that were modified from earlier research on brand loyalty, emotional engagement, trust, and AI marketing. Emotional engagement results (brand memory, participation, and buy intention), consumer knowledge and sentiments about Emotion AI, perceptions of authenticity, trust, and personalization, advocacy and loyalty, and ethical and privacy issues comprise its many aspects. A five-point Likert scale, ranging from "strongly disagree" to "strongly agree," is used to gauge responses. Efficiency, privacy, and a greater response rate among digitally active individuals are guaranteed via online data gathering.

Measuring the Variables:

Customers' impressions of emotional recognition, personalization, and responsiveness in ads are used to operationalize emotion AI in social media advertising. Authenticity, trust, personalization, brand memory, consumer participation, purchase intention, advocacy, and brand loyalty are examples of dependent variables. Objective five is addressed by measuring privacy, psychological, and ethical issues as risk perception factors. To investigate differences in advocacy and loyalty results, demographic traits including age, gender, and education are added as moderate variables. Multi-item scales are used to measure all constructs to improve validity and reliability.

Methods of Data Analysis:

Statistical software, like SPSS, is used to analyze data. Respondent demographics and general opinions of Emotion AI are compiled using descriptive statistics. Cronbach's alpha is used for reliability analysis, while factor analysis is used to evaluate validity. Inferential methods, such as multiple regression analysis and correlation analysis, are used to assess the suggested research goals and test correlations between variables.

Moral Aspects:

The study is conducted with rigorous adherence to ethical norms. Respondents are made aware of the goal of the study, and participation is entirely optional. Confidentiality and anonymity are guaranteed as no personally identifying information is gathered. Respondents' worries about psychological impact, data privacy, and the moral use of AI in advertising are given special consideration due to the delicate nature of Emotion

AI-related subjects. The study guarantees that data is utilized only for research and complies with academic research ethics.

Data Analysis:

Descriptive Statistics:

Based on 150 valid replies, Table 1 displays descriptive data regarding respondents' social media usage habits and demographic traits. With a mean value of 2.47 and a standard deviation of 0.64 for the age variable, which spans from 2 to 4, the majority of respondents fell within the study's middle age groups. The age distribution appears to be somewhat right-skewed, with a greater concentration of respondents in the younger age groups, according to the positive skewness value (1.053). A distribution that is almost normal is shown by the kurtosis value of 0.007.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Age	150	2.00	4.00	2.4667	.64159	.412	1.053	.198	.007	.394
Gender	150	1.00	2.00	1.3200	.46804	.219	.780	.198	-1.411	.394
Socialmediausage	150	2.00	4.00	3.0133	.38402	.147	.135	.198	3.980	.394
Valid N (listwise)	150									

With a standard deviation of 0.47 and a mean of 1.32, the gender variable, which spans from 1 to 2, indicates a stronger prevalence of one gender group (presumably men or females, depending on coding). While the negative kurtosis value (-1.411) implies a flatter distribution than usual and suggests generally equitable participation across gender groups, the skewness value of 0.780 indicates moderate positive skewness.

With a mean of 3.01 and a low standard deviation of 0.38, social media usage varies from at least 2 up to 4. This suggests that the majority of respondents use social media at high and steady rates. While the high kurtosis value (3.980) implies a highly peaked distribution, meaning responses are significantly concentrated around the mean, the skewness value (0.135) reflects near symmetry in the distribution.

All things considered, the descriptive findings point to a sample that is predominately made up of active social media users with a respectable level of demographic variety, which makes it appropriate for investigating attitudes and actions regarding Emotion AI in social media advertising.

Most respondents fall into the study's younger or mid-age category, as indicated by the age variable's mean of 2.47, median, and mode of 2.00. The age distribution's modest variability is indicated by the standard deviation of 0.64. A right-skewed distribution, or a greater concentration of respondents in the lower age groups, is shown by the positive skewness score (1.053). A distribution that is almost normal is suggested by the kurtosis score of 0.007.

Statistics

		Age	Gender	Awareness
N	Valid	150	150	150
	Missing	0	0	0
Mean		2.4667	1.3200	4.1867
Median		2.0000	1.0000	4.0000
Mode		2.00	1.00	4.00
Std. Deviation		.64159	.46804	.68919
Variance		.412	.219	.475
Skewness		1.053	.780	-.262
Std. Error of Skewness		.198	.198	.198
Kurtosis		.007	-1.411	-.880
Std. Error of Kurtosis		.394	.394	.394
Minimum		2.00	1.00	3.00
Maximum		4.00	2.00	5.00
Sum		370.00	198.00	628.00

One gender group predominates in the sample, as seen by the gender mean value of 1.32, median, and mode of 1.00. Limited variability is seen in the very modest standard deviation (0.47). While the negative kurtosis (-1.411) suggests a flatter-than-normal distribution, indicating a balanced but somewhat dominating gender group, the skewness score of 0.780 shows moderate positive skewness.

On the measuring scale, the awareness variable has a high mean score of 4.19, with a median and mode of 4.00. This suggests that respondents' awareness of Emotion AI in social media advertising is typically high. The awareness levels are somewhat consistent, as indicated by the standard deviation of 0.69. Responses appear to be somewhat biased toward higher awareness levels, according to the negative skewness number (-0.262). Although awareness is strong, answers are dispersed over the higher scale values, according to the kurtosis value (-0.880), which shows a rather flat distribution.

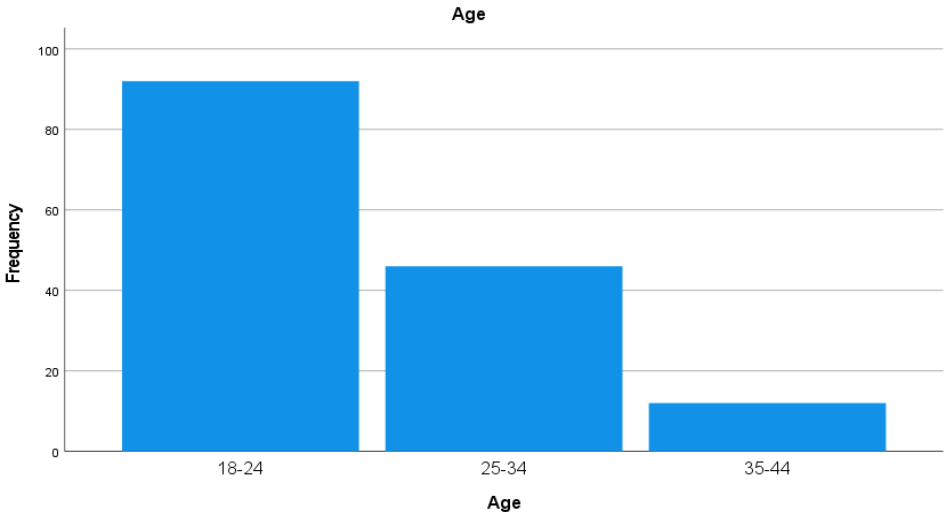
Overall, the descriptive statistics show that the sample is made up of younger, socially engaged respondents who are well aware of Emotion AI advertising. This provides a solid basis for additional inferential research that is in line with the goals of the study.

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-24	92	61.3	61.3	61.3
	25-34	46	30.7	30.7	92.0
	35-44	12	8.0	8.0	100.0
	Total	150	100.0	100.0	

Of the 150 valid replies, 92 respondents (61.3%) are in the 18–24 age range, making up the bulk of participants. This suggests that young adults make up the majority of the sample, which is consistent with their heavy usage of digital advertising material and social media platforms.

With 46 responders (30.7%), the 25–34 age group is the second-largest category. These two groups make up 92.0% of the sample when combined with the 18–24 age group, indicating that the study mostly captures the opinions of younger and early-career people, who are generally more exposed to AI-driven and emotionally adaptable advertising technology.

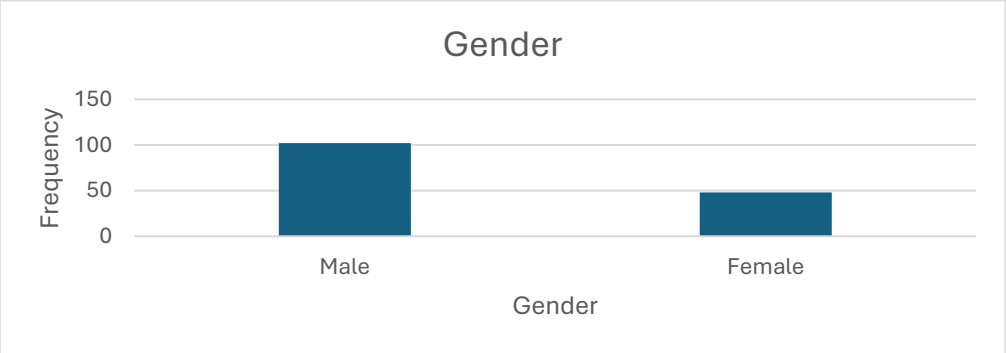


With 12 respondents (8.0%), the 35–44 age group makes up a smaller fraction of the sample, suggesting that older customers are not well represented. Complete data with no missing values is confirmed when the cumulative percentage reaches 100%.

Since younger users are more likely to engage with cutting-edge digital marketing technology, the sample's overall age distribution indicates that it is primarily young, which is suited for investigating impressions of Emotion AI in social media advertising. However, when extrapolating the results to later age groups, this dispersion should be considered.

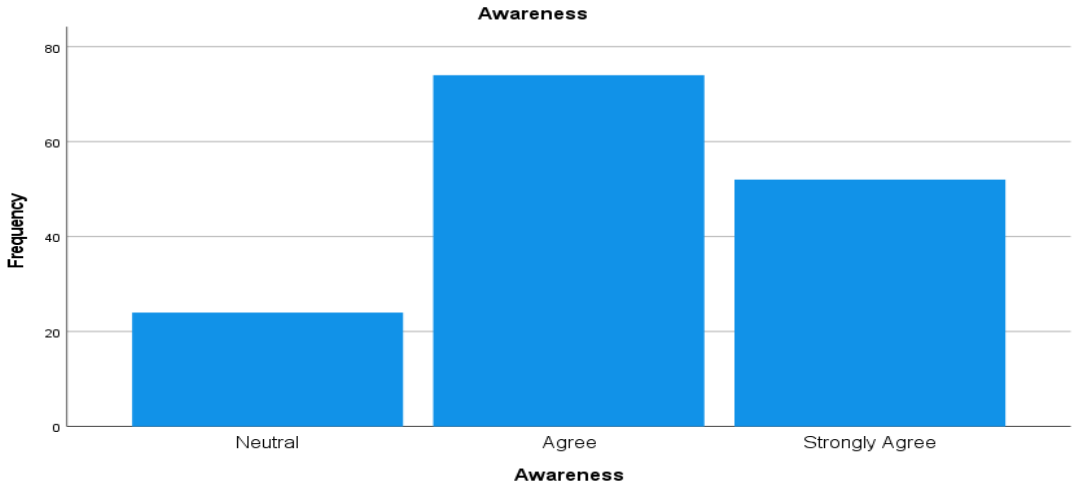
Gender					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	102	68.0	68.0	68.0
	Female	48	32.0	32.0	100.0
	Total	150	100.0	100.0	

Of the 150 legitimate replies, 48 respondents (32.0%) are female and 102 respondents (68.0%) are male. This suggests that there were more male participants in the research. The cumulative percentage attests to the validity of every response and the absence of any missing information. The gender distribution indicates that male respondents in this sample had a greater effect on opinions on Emotion AI in social media advertising. This disparity should be taken into account when analyzing gender-based disparities in awareness, engagement, and brand loyalty results, even when both genders are fairly represented.



Awareness					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Neutral	24	16.0	16.0	16.0
	Agree	74	49.3	49.3	65.3
	Strongly Agree	52	34.7	34.7	100.0
	Total	150	100.0	100.0	

The findings indicate that a significant majority of participants exhibit a high degree of awareness. In particular, 52 respondents (34.7%) strongly agreed and 74 respondents (49.3%) agreed that they are aware of Emotion AI, making up 84.0% of the sample. This suggests that individuals have a high level of awareness overall.



On the other hand, 24 respondents (16.0%) had a neutral position, indicating that they had little or no experience with Emotion AI applications in advertising. Notably, none of the respondents disagreed, which supports the conclusion that the sample's social media users are generally aware of Emotion AI. All things considered, the high level of awareness offers a solid basis for analyzing customers' attitudes, emotional involvement, and behavioral reactions to Emotion AI-driven advertising.

Correlation Analysis:

The Pearson correlation results examine the relationships between **Emotion AI**, **authenticity**, **trust**, **customization**, and **overall brand perception** based on responses from 150 participants.

The findings show a strong and positive correlation between Emotion AI and every important perception metric. Authenticity ($r = 0.231$, $p = 0.004$) and trust ($r = 0.239$, $p = 0.003$) have a strong correlation with Emotion AI, indicating that higher levels of perceived Emotion AI usage in advertising are linked to better perceptions of authenticity and trust. Customization and Emotion AI had a larger positive association ($r = 0.403$, $p < 0.001$), suggesting that Emotion AI is more successful in improving customers' opinions of tailored advertising. Furthermore, Emotion AI shows a strong positive correlation with brand perception ($r = 0.333$, $p < 0.001$), suggesting that emotion-conscious advertising helps create a more positive opinion of the brand in general.

Authenticity and trust are substantially connected ($r = 0.307$, $p < 0.001$), according to interrelationships across perception characteristics, indicating that genuine emotional advertising increases customer trust. Additionally, personalization and trust are positively correlated ($r = 0.243$, $p = 0.003$), indicating that tailored emotional content boosts trustworthiness. Authenticity, however, does not significantly correlate with either brand impression ($r = 0.105$, $p = 0.202$) or personalization ($r = 0.020$, $p = 0.804$). Likewise, there is no significant correlation between brand impression and trust ($r = 0.044$, $p = 0.590$).

Correlations

		EmotionAI	Authenticity	Trust	customization	Brandperception
EmotionAI	Pearson Correlation	1	.231**	.239**	.403**	.333**
	Sig. (2-tailed)		.004	.003	.000	.000
	N	150	150	150	150	150
Authenticity	Pearson Correlation	.231**	1	.307**	.020	.105
	Sig. (2-tailed)	.004		.000	.804	.202
	N	150	150	150	150	150
Trust	Pearson Correlation	.239**	.307**	1	.243**	.044
	Sig. (2-tailed)	.003	.000		.003	.590
	N	150	150	150	150	150
customization	Pearson Correlation	.403**	.020	.243**	1	.192*
	Sig. (2-tailed)	.000	.804	.003		.019
	N	150	150	150	150	150
Brandperception	Pearson Correlation	.333**	.105	.044	.192*	1
	Sig. (2-tailed)	.000	.202	.590	.019	
	N	150	150	150	150	150

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Customized emotional advertisements somewhat improve overall brand perception, as seen by the substantial but weak positive association between customization and brand perception ($r = 0.192$, $p = 0.019$).

Overall, the correlation study confirms that customers' views of authenticity, trust, personalization, and brand perception are strongly correlated with Emotion AI in social media advertising. Customization and Emotion AI have the highest correlation, highlighting personalization as the main way that Emotion AI improves the efficacy of advertising.

Regression Analysis:

The model summary for the linear regression research looking at how Emotion AI affects the authenticity of advertisements. Emotion AI and authenticity have a small but favorable link, according to the data, which indicate a correlation value (R) of 0.231.

Emotion AI can account for 5.3% of the variance in

authenticity assessments, according to the R Square (R^2) value of 0.053. The model's stability is further supported by the Adjusted R Square score of 0.047, which accounts for sample size and predictor count. In behavioral and social science research, when consumer opinions are impacted by a variety of factors, the explained variance is acceptable while being quite low.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.231[a]	.053	.047	.71250
a. Predictors: (Constant), EmotionAI				

When measuring authenticity using Emotion AI, the standard error of the estimate is 0.71250, suggesting a significant degree of prediction inaccuracy. Overall, the model shows that Emotion AI may predict consumers' views of advertising authenticity with statistically significant but limited explanatory power.

The ANOVA results for the linear regression model assessing the effect of **Emotion AI on advertising authenticity**. The findings indicate that the overall regression model is **statistically significant**.

With 1 and 148 degrees of freedom, the F-statistic value is 8.327, and the associated significance value ($p = 0.004$) is below the 0.05 cutoff. This outcome demonstrates that customers' views of authenticity are strongly predicted by the regression model.

While the residual sum of squares (75.133) represents unexplained variance resulting from other factors not included in the model, the regression sum of squares (4.227) shows how much variation in authenticity is explained by Emotion AI. The entire range in judgments of authenticity is represented by the total sum of squares (79.360).

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.227	1	4.227	8.327	.004[b]
	Residual	75.133	148	.508		
	Total	79.360	149			
a. Dependent Variable: Authenticity						
b. Predictors: (Constant), EmotionAI						

Overall, the ANOVA findings show that Emotion AI is a strong predictor of advertising authenticity, confirming the applicability of the regression model for additional interpretation of the regression coefficients and verifying the suggested association.

The regression results for the model that looks at how Emotion AI affects advertisement authenticity. Emotion AI is a statistically significant predictor of authenticity, according to the findings. The unstandardized coefficient (B) for Emotion AI is 0.355, meaning that, when all other variables are held constant, authenticity rises by 0.355 units for every unit increase in consumers' impression of Emotion AI usage in social media advertising. The standard error of 0.123 indicates a reasonable level of estimating accuracy.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.765	.515		5.373	<.001
	EmotionAI	.355	.123	.231	2.886	.004

a. Dependent Variable: Authenticity

Although other factors also play a role, the standardized beta coefficient ($\beta = 0.231$) indicates a positive but small effect size, suggesting that Emotion AI has a significant impact on authenticity assessments. This impact is statistically significant at the 0.01 level, according to the t-value (2.886) and

associated significance level (p = 0.004).
The constant term, which represents the initial degree of perceived authenticity when Emotion AI perception is zero, is likewise statistically significant (B = 2.765, p < 0.001). Overall, these results provide credence to the theory that consumers' opinions of advertising authenticity are positively impacted by Emotion AI.
The model summary for the linear regression research looking at how customer trust in social media advertising is affected by Emotion AI. Emotion AI perception and trust have a modest to moderately favorable link, according to the correlation coefficient (R = 0.239). The R Square (R^2) value of 0.057 indicates that Emotion AI can account for 5.7% of the variance in customer trust. After accounting for sample size, the model's stability is demonstrated by the Adjusted R Square (0.051). In social science research, when trust is impacted by a variety of psychological and environmental factors, the very small percentage of explained variance is deemed acceptable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.239[a]	.057	.051	.70620

a. Predictors: (Constant), EmotionAI

The **standard error of the estimate (0.70620)** indicates a moderate level of prediction error in estimating trust levels based on Emotion AI perception.
The regression model is statistically significant, according to the ANOVA findings. With 1 and 148 degrees of freedom, the model yields an F-statistic of 8.990 and a significance value of p = 0.003, both of which are significantly below the 0.05 cutoff. While the residual sum of squares (73.810) represents unexplained variance attributable to other factors, the regression sum of squares (4.484) shows the variation in trust explained by Emotion AI. The overall variety in respondents' judgments of trust is shown by the total sum of squares (78.293). Overall, these findings validate the suggested link and achieve the study's second objective by confirming that Emotion AI strongly predicts customer trust.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.484	1	4.484	8.990	.003[b]
	Residual	73.810	148	.499		
	Total	78.293	149			

a. Dependent Variable: Trust
b. Predictors: (Constant), EmotionAI

The regression coefficients for the model that looks at how customer confidence in social media advertising is affected by Emotion AI. According to the results, Emotion AI is a statistically significant predictor of trust.
When all other variables are held constant, the unstandardized coefficient (B = 0.366) for Emotion AI indicates that a one-unit rise in consumers' perception of Emotion AI usage results in a 0.366 unit gain in confidence. The estimate's acceptable accuracy is shown by the comparatively tiny standard error (0.122).

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2.587	.510		5.073	<.001
	EmotionAI	.366	.122	.239	2.998	.003

a. Dependent Variable: Trust

Although trust is also influenced by other factors not included in the model, the standardized beta coefficient (β = 0.239) indicates a positive although small impact size, indicating that Emotion AI significantly contributes to the development of customer trust. This link is statistically significant at the 0.01 level, according to the t-value (2.998) and significance level (p = 0.003).
The constant term, which represents the initial degree of trust in the absence of Emotion AI perception, is likewise statistically significant (B = 2.587, p < 0.001).
The premise that Emotion AI favorably affects consumer trust is generally supported by the regression findings, which strengthens the significance of emotionally intelligent advertising in boosting credibility and confidence toward companies on social media platforms.
The linear regression analysis's model summary looks at how Emotion AI affects social media advertising's perceived personalization. Customization and Emotion AI perception have a moderately positive association, according to the correlation coefficient (R = 0.403). Emotion AI accounts for 16.2% of the variation in customized impressions, according to the R Square (R^2 = 0.162). After accounting for sample size, the model's robustness is confirmed by the Adjusted R Square (0.157). This model shows significantly greater explanatory power than the models that predict authenticity and trust, suggesting that Emotion AI has a significant impact on personalization.

A respectable degree of accuracy in forecasting customisation based on Emotion AI perception is suggested by the standard error of the estimate (0.66163).

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.403[a]	.162	.157	.66163

a. Predictors: (Constant), EmotionAI

The regression model is very statistically significant, according to the ANOVA findings. The model confirms that Emotion AI substantially predicts perceived customisation with an F-statistic of 28.657 with 1 and 148 degrees of freedom and a significance value of p < 0.001.
The residual sum of squares (64.789) indicates unexplained variance attributed to other factors, and the regression sum of squares (12.545) indicates the degree of variation in customisation described by Emotion AI. The entire range in views of personalization is shown by the total sum of squares (77.333).
These findings verify that the regression model is suitable and significant for analyzing the connection between customisation and Emotion AI.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.545	1	12.545	28.657	.000[b]
	Residual	64.789	148	.438		
	Total	77.333	149			

a. Dependent Variable: customization

b. Predictors: (Constant), EmotionAI

Customization is strongly and statistically significantly impacted by Emotion AI, according to the coefficients table. When all other variables are held constant, the unstandardized coefficient (B = 0.612) shows that a one-unit improvement in Emotion AI perception results in a 0.612-unit increase in perceived customisation.
Compared to its impacts on authenticity and trust, the standardized beta coefficient (β = 0.403) indicates a moderate-to-strong effect size, indicating that Emotion AI is a strong predictor of personalization. The strength of this link is further shown by the significance level (p < 0.001) and t-value (5.353).
The constant term, which represents the initial degree of customisation in the absence of Emotion AI awareness, is likewise statistically significant (B = 1.525, p = 0.002).

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.525	.478		3.192	.002
	EmotionAI	.612	.114	.403	5.353	.000
a. Dependent Variable: customization						

In the context of social media advertising, the impact of Emotion AI on customers' overall brand perception was investigated by regression analysis. With a correlation coefficient (R = 0.333), the Model Summary shows a somewhat favorable association between Emotion AI and brand impression. Emotion AI accounts for 11.1% of the variation in brand impression, according to the R Square (R^2 = 0.111). After accounting for sample size, the model's stability is confirmed by the Adjusted R Square (0.105). In consumer behavior research, when a variety of psychological and environmental variables influence brand perception, the moderate explained variance is deemed significant.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.333[a]	.111	.105	.76481
a. Predictors: (Constant), EmotionAI				

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.763	1	10.763	18.400	.000[b]
	Residual	86.571	148	.585		
	Total	97.333	149			
a. Dependent Variable: Brandperception						
b. Predictors: (Constant), EmotionAI						

The regression model is very statistically significant, according to the ANOVA findings. Emotion AI substantially predicts brand perception, according to the model, which yields an F-value of 18.400 with 1 and 148 degrees of freedom and a significance threshold of $p < 0.001$. The residual variance (86.571) shows the impact of other unmeasured factors, while the regression sum of squares (10.763) shows the percentage of brand perception variation explained by Emotion AI. The strength of this association is further shown by the Coefficients table. When all other variables are held constant, the unstandardized coefficient (B = 0.567) shows that a one-unit rise in Emotion AI perception results in a 0.567-unit increase in positive brand perception. The standardized beta coefficient (β = 0.333) indicates a moderate impact size, indicating that Emotion AI significantly affects customers' brand evaluations. The statistical significance of this impact is shown by the t-value (4.289) and significance level ($p < 0.001$). The baseline brand perception in the absence of Emotion AI perception is represented by the constant term, which is equally significant (B = 1.779, p = 0.002).

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.779	.552		3.221	.002
	EmotionAI	.567	.132	.333	4.289	.000
a. Dependent Variable: Brandperception						

Findings and Suggestions:

Findings of the Study:

1. Emotion AI has a big impact on how consumers see the efficacy of advertising.

The findings show that customers' judgments of advertising authenticity, trust, personalization, and overall brand perception are all positively and statistically significantly impacted by Emotion AI. Emotion AI regularly shows up as a significant factor of how consumers assess emotionally intelligent commercials, even if the degree of effect varies among domains.

2. The best result of Emotion AI-driven advertising is customization.

Perceived customisation has the greatest correlation (R2 = 16.2%) with Emotion AI of all the variables analyzed under Objective 2. This implies that by adjusting material to customers' emotional states, Emotion AI is especially successful in improving ad customization, increasing relevance and engagement.

3. Brand impression and trust are positively impacted by emotion AI.

The regression findings show that Emotion AI greatly enhances customer trust (R^2 = 5.7%) and brand impression (R^2 = 11.1%). Although personalization has a greater impact on trust and authenticity, the associations are still statistically significant, suggesting that emotion-aware advertising enhances credibility and favorable brand perception.

4. Advertising authenticity is somewhat improved by emotion AI.

Perceived authenticity is found to be positively but somewhat weakly impacted by emotion AI (R2 = 5.3%). This implies that consumers may still view emotionally adaptable advertisements as somewhat mechanical or strategically motivated, even while Emotion AI enhances realism and emotional resonance.

5. Brand-related results are enhanced by strong emotional involvement.

Emotion AI is strongly linked to emotional engagement results, such as personalization, memory, and general brand impression, according to correlation study. These results show that one important way that Emotion AI improves consumer-brand interactions is via emotional relevancy.

Suggestions and Recommendations

1. Emotion AI should be given top priority by marketers for customized advertising campaigns. Brands should invest in emotion-aware technology to create highly tailored ads that connect with consumers' moods, preferences, and emotional states, since Emotion AI has a significant impact on personalization.

2. To increase authenticity and trust, transparency is crucial.

The impact sizes are modest, despite the fact that Emotion AI increases authenticity and trust. To boost customer confidence and lessen skepticism, brands should be transparent about their usage of Emotion AI in advertising.

3. Strike a balance between human inventiveness and automation.

Marketers should integrate human creativity with Emotion AI insights to prevent impressions of artificial or manipulated content. While upholding moral principles, this hybrid strategy can improve emotional authenticity.

4. Boost brand loyalty and impression by utilizing Emotion AI.

Businesses should use emotionally intelligent advertising to uphold brand values, foster emotional connections, and promote enduring brand loyalty as Emotion AI greatly enhances brand perception.

5. Take aggressive measures to address privacy and ethical issues.

When employing Emotion AI, organizations should have robust data protection rules and ethical norms in place. Emotion AI advertising can be more widely accepted if data collecting procedures are transparent and privacy laws are followed.

6. Demographic differences should be taken into account in future study and policy formulation.

Marketers can adjust emotion-driven advertising to enhance efficacy and inclusion because customer reactions to Emotion AI may vary by age group, gender, and degree of digital literacy.

StudyLimitations

This **study has several limitations** that should be **considered** when **understanding** its findings, **even** though it **offers valuable** insights. One **key limitation** is its cross-sectional design, which **makes** it **challenging** to **establish** long-term cause-and-effect **relationships** between Emotion AI and **customer** perceptions. Deeper understanding of how emotional engagement and brand loyalty change with repeated exposure to Emotion AI-driven advertising may be possible through longitudinal research.

Second, answer bias, such as social desirability and perceptual errors, may affect the study's self-reported findings. It's possible that respondents' expressed opinions don't necessarily correspond with how they really behave while making

purchases. Third, the results may not be as applicable to older age groups or less tech-savvy customers because the sample is mostly made up of younger, digitally active respondents. Future research should incorporate a broader range of demographic groupings in order to increase representativeness.

Fourth, rather than measuring Emotion AI technology objectively, the study concentrates on perceived Emotion AI utilization. Because of this, respondents' knowledge and comprehension of Emotion AI may differ, which might affect their answers.

Lastly, although the study looks at important behavioral and perceptual characteristics, it excluded other pertinent elements including cultural impacts, platform-specific variations, and long-term brand loyalty results. Future studies that take these factors into account may offer a more thorough comprehension of Emotion AI's function in digital advertising.

Conclusions:

This study looked at how customer perceptions and behavioral results in social media advertising are influenced by Emotion Artificial Intelligence (Emotion AI). The results offer empirical proof that Emotion AI has a substantial impact on important aspects of advertising efficacy, such as authenticity, trust, personalization, and general brand impression. Customization was the most successful of these, suggesting that Emotion AI is very good at providing tailored advertising experiences that speak to customers' emotional states. The findings also show that, despite the moderate strength of these associations, Emotion AI has a beneficial impact on customer trust and brand impression. This implies that consumers may continue to be somewhat skeptical of automated emotional targeting even while emotionally intelligent advertising increases credibility and emotional involvement. The study also emphasizes how crucial emotional involvement is as a way that Emotion AI improves customer-brand connections.

Overall, the study demonstrates that Emotion AI is a useful strategic tool for marketers looking to improve brand appraisal, emotional relevance, and customization in digital advertising. In order to secure long-term customer approval, the results also highlight the necessity of ethical execution, openness, and responsible data usage. Organizations may use Emotion AI to create more meaningful and reliable advertising experiences by striking a balance between technical innovation and ethical issues.

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