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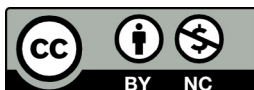
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Role of Artificial Intelligence Bots in Digital Marketing: A Cross-Sectional Study

FAIZA KHURRAM^{1*}

ABSTRACT

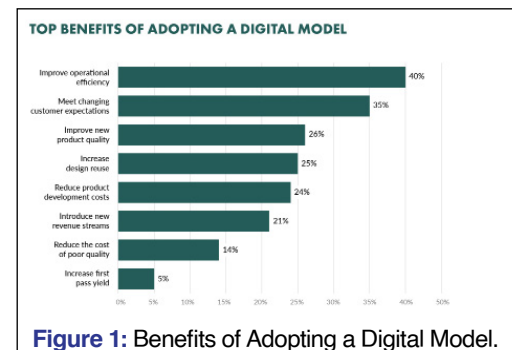
This research examines the influence of artificial intelligence (AI) bots on digital marketing, concentrating on content creation, poster creation, and competitor content analysis. The main goal was to determine how these AI-driven variables affected Japanese digital marketing managers' tactics. A cross-sectional study was conducted on Japanese managers involved in digital marketing. The project examined AI Content Creation, Poster Creation, and Competitor Content Analysis. To determine how AI bots affect digital marketing, a poll was conducted. Study results show extensive usage of AI Content Creation, Poster Creation, and Competitor Content Analysis among Digital Marketing Managers. AI simplified content development, poster design, and rival strategy analysis, improving digital marketing performance. This research concludes that AI bots significantly impact digital marketing tactics for Japanese managers. AI Content Creation, AI Poster Creation, and AI Competitor Content Analysis have become essential to optimising digital marketing efforts, demonstrating AI's transformational influence on digital marketing.

KEYWORDS: AI Content Creation, AI Poster Creation, AI Competitor Content Analysis, AI Bots, Digital Marketing, Artificial Intelligence.

1. INTRODUCTION

Given the dynamic nature of the digital environment, marketing professionals are currently confronted with a pivotal moment as they navigate the intricate intricacies of an ever-expansive online realm. The issue they face is complex, necessitating the ongoing adjustment of tactics to not only stay up to date with technical progress but also to fulfil the unrelenting requirements of a progressively competitive market. The dynamic nature of this situation necessitates a comprehensive analysis of the tactics utilised by Digital Marketing Managers, who occupy a pivotal role in the decision-making procedures of their respective organisations (Schneckenberg et al., 2017). Against the backdrop of a rapidly evolving landscape, this research aims to explore the intricate challenges faced by Digital Marketing Managers. Digital marketing methods using AI bots provide both benefits and challenges. Despite its promise for efficiency, customization, and strategic insights, integrating AI into established frameworks requires a thorough understanding of its effects. This study examines the difficulties of AI bot adoption and consequences, focusing on digital marketing decision-making. This report illuminates Digital Marketing Managers' challenges and provides practical ideas to improve AI-driven marketing strategies in a shifting digital world. The report recognises the relevance of Digital Marketing Managers in navigating the complex landscape and addresses the problems they encounter when using

AI as a strategic tool in decision-making. Figure 1 shows benefits of adoption of a digital model.



The purpose of this study is to examine how AI Content Creation, AI Poster Creation, and AI Competitor Content Analysis have transformed Japanese managers' digital marketing practices. This study examines the practical effects of integrating AI in the dynamic digital world, where technology and marketing are increasingly coming together. This research aims to enhance comprehension of the impact of AI functions on decision-making processes in the field of digital marketing by examining the patterns of AI adoption. By conducting a rigorous analysis of practical situations and established methodologies, this research aims to elucidate the complexities of AI's influence, providing valuable perspectives that surpass mere theoretical constructs. By undertaking this study, the research

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aims to make a significant addition to the ongoing discussion on the efficacy of digital marketing methods. In addition to theoretical inquiry, the objective of this study is to provide practical insights based on the firsthand experiences of Digital Marketing Managers in Japan, therefore benefiting both academic researchers and industry professionals. This research serves as evidence of the ever-evolving nature of digital marketing strategies, whereby the integration of AI not only poses obstacles but also creates opportunities for strategic innovation and gaining a competitive edge.

This study is of great importance as it strategically enhances the current knowledge base at the intersection of AI and digital marketing. In a time, characterised by transformative technological advancements, this study serves as a guiding light, examining the perspectives of Digital Marketing Managers to derive practical knowledge that transcends academic frameworks. The significance of this work is evident in two crucial aspects. First and foremost, within the academic realm, it enhances the dialogue pertaining to the complex interaction between AI and Digital Marketing (Murtarelli et al., 2021). Through the use of real-world experiences, the study not only contributes to the advancement of theoretical frameworks but also enables a more profound understanding of the practical obstacles and prospects associated with the integration of AI. Furthermore, within the field, this research acts as a valuable resource for professionals, providing concrete insights obtained from the firsthand experiences of Digital Marketing Managers. The insights above possess the capacity to enhance strategic decision-making processes, hence facilitating a more sophisticated and knowledgeable approach to harnessing AI within the marketing field (Borges et al., 2021). The study is important due to its ability to increase knowledge in academics and provide practical guidance for industry experts. Consequently, it contributes to a thorough comprehension of the revolutionary capabilities of AI in the ever-changing field of marketing.

Although prior research has undoubtedly established a crucial foundation, there is a noticeable void in the scholarly literature about the distinct encounters of Digital Marketing Managers in Japan in relation to the integration of AI (Kautish et al., 2023). Previous scholarly investigations have frequently offered a more comprehensive viewpoint, although they have lacked the level of detail necessary to fully grasp the distinct obstacles and achievements experienced by these practitioners, specifically within the Japanese setting (Eddy, 1998). This study strategically positions itself to address this gap by providing a targeted analysis. The research seeks to enhance comprehension by examining the intricate complexities of AI implementation within the unique realm of Japanese Digital Marketing, offering a more comprehensive and contextually appropriate insight. Undertaking this action not only acknowledges the current deficiency but also aids in the enhancement of tactics by providing perspectives that are more aligned with the particular obstacles and prospects encountered by Digital Marketing Managers functioning in the Japanese market.

The study examines the practical consequences of using AI for content production, poster design, and competitor content analysis in digital marketing strategies among Marketing Managers in Japan. The primary objective is to conduct a rigorous empirical evaluation of the effects of AI interventions, while maintaining a neutral stance towards any certain theoretical framework. This research endeavours to offer a more focused and contextually grounded comprehension of the impact of artificial intelligence (AI) on digital marketing strategies within the practical environment of Marketing Managers in Japan,

by deliberately avoiding the adoption of a particular theoretical framework. The research prioritises the application of practical knowledge rather than theoretical frameworks, with the objective of connecting academic ideas with the practical execution of AI in the ever-changing field of digital marketing.

Recognising this study's limitations is essential to a full analysis. The study's exclusive focus on the Japanese market restricts its relevance to other cultures, emphasising the need to interpret its conclusions cautiously. The dynamic and growing nature of technology also creates a restriction. The results of this study represent a particular moment in time, and future advancements in technology may have impacted the dynamics examined in this research. Given the temporal limitation, the study provides insights that are representative of the circumstances existing at the time of the investigation, emphasising the significance of taking into account temporal variables when interpreting the findings. The constraints above, which are intrinsic to the study's scope, offer opportunities for future research to further investigate the dynamic nature of AI in Digital Marketing across various cultural and temporal contexts.

2. LITERATURE REVIEW

The literature review explores the intersection of AI content creation and digital marketing, focusing on Marketing Managers in Japan. Previous research consistently affirms the positive impact of AI content creation on digital marketing strategies. Studies by Carleton et al. (2020) and Reynolds et al. (2017) highlighted increased efficiency, scalability, and enhanced engagement. The influence of AI poster creation is similarly positive, as evidenced by Areeb et al. (2021) early insights and more recent studies emphasising improved visual appeal and engagement. AI competitor content analysis, examined through the lens of Cao et al. (2010) and Hendry (2000), proves instrumental in enhancing competitive positioning and strategic decision-making. Overall, the literature underscores the transformative potential of AI interventions, providing a theoretical foundation for understanding their practical implications in digital marketing strategies.

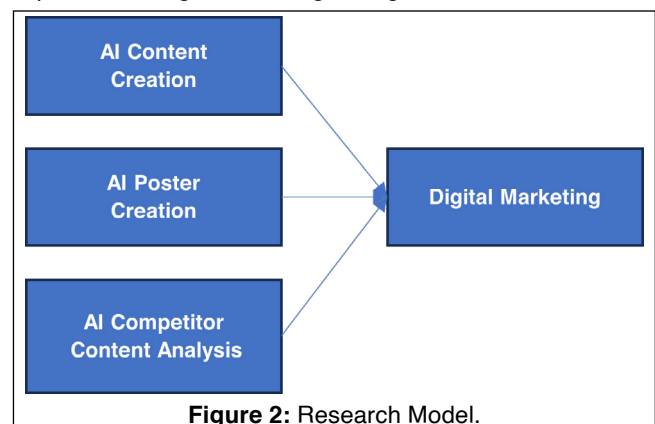


Figure 2: Research Model.

AI CONTENT CREATION AND DIGITAL MARKETING

Extensive research has been conducted on the incorporation of AI into the field of Digital Marketing, with a specific emphasis on AI Content Creation. This research has mostly centred on the experiences of Marketing Managers based in Japan. The study undertaken by Pan and Zhang (2021) is a significant contribution to the field, as it sheds light on the profound impact of AI technologies on the optimisation of content development procedures. The preliminary inquiry laid the groundwork by showcasing the effectiveness of artificial intelligence in mitigating



resource constraints and elevating the quality of digital marketing content. [Casalino et al. \(2021\)](#) highlighted the pragmatic advantages that result from the application of AI-powered content generation technologies, hence resulting in enhanced effectiveness and expandability.

The study done by [Kamal and Himel \(2023\)](#) illustrates the evident influence of AI-generated content on significant metrics, such as engagement and conversion rates. The researchers' study emphasised the concrete impact of integrating AI into digital marketing tactics, confirming the conclusions made by Marketing Managers in Japan. The research done by [Kerr et al. \(2023\)](#) further substantiated the notion that the use of artificial intelligence empowers marketing managers to deliver tailored and focused messages with efficacy. The integration of AI technology has enabled a more sophisticated and efficient approach to engaging with a wide range of customer categories, hence enhancing the overall efficacy of digital marketing tactics.

The study conducted by [Dwivedi, Hughes, et al. \(2021\)](#) examined the beginning stages of integrating AI and provided insights into the early obstacles and potential advantages encountered by Marketing Managers. The adaptive tactics adopted throughout time, showing the evolution of approaches in response to the dynamic terrain, have been exhibited in subsequent conference proceedings such as [Guo et al. \(2017\)](#). Although there are clear benefits, there have been difficulties in incorporating AI Content Creation into digital marketing frameworks. The study conducted by [Dwivedi, Hughes, et al. \(2021\)](#) shed light on the issues surrounding the preservation of brand voice and authenticity, uncovering the intricate difficulties that arise with the implementation of AI.

The research conducted by [Soni \(2023\)](#) highlighted the significance of strategically aligning AI-generated content with broader marketing goals and the preferences of the target audience. The efficacy of AI-powered content generation relied on a deliberate and strategic incorporation into the wider marketing framework. Hence, the literature research provides a thorough historical outlook on the correlation between AI Content Creation and Digital Marketing within the context of Marketing Managers in Japan. Empirical studies provide evidence supporting the notion that AI-driven content production has a beneficial impact, hence establishing it as a catalyst for boosting efficiency, flexibility, and overall efficacy in digital marketing campaigns. The obstacles that have been discovered emphasise the importance of strategic considerations in the integration of AI, providing useful insights to the continuing discussion on the mutually beneficial interaction between AI and Digital Marketing.

Hypothesis 1: AI content creation has a positive influence on digital marketing.

AI POSTER CREATION AND DIGITAL MARKETING

The incorporation of AI into the field of Digital Marketing, particularly in the domain of AI Poster Creation, has been a topic of comprehensive investigation. This literature study examines historical research that centres on the experiences of Marketing Managers in Japan, with the objective of offering insights into the effects of AI-generated posters on digital marketing. The utilisation of AI-powered solutions for poster design has played a crucial role in transforming the visual aspect of digital marketing tactics. The conversation was begun by [Siontis et al. \(2021\)](#), who demonstrated the transformational impacts of AI technology on the field of poster

design. The study conducted by the researchers emphasised the efficiency of AI in optimising the poster design process, leading to the production of aesthetically pleasing and captivating posters that effectively attracted the attention of the audience.

[Tan et al. \(2019\)](#) emphasised the tangible benefits that result from employing AI in the poster design process. The study's findings suggest that Marketing Managers in Japan shown enhanced levels of efficiency and creativity, leading to the development of visually compelling posters. The initial investigations established the groundwork for comprehending the potential of incorporating AI into the process of creating posters, therefore augmenting the visual attractiveness of digital marketing materials. [Balsas \(2004\)](#) provided evidence to support the notion that the utilisation of AI in the design of posters has a beneficial effect on digital marketing by demonstrating its practical impact on key performance measures. The findings of their research conducted among Marketing Managers revealed a significant positive relationship between the use of AI-generated posters and heightened levels of engagement. This underscores the efficacy of visually captivating material inside digital marketing initiatives.

The study conducted by [Lasi \(2021\)](#) provided more support for the argument, demonstrating that the integration of AI enabled Marketing Managers to effectively communicate tailored and visually captivating messages. The integration of AI technology in the process of creating posters has enabled a more sophisticated and efficient approach to engaging with various customer segments, hence enhancing the overall effectiveness of digital marketing tactics. The study conducted by [Holzinger et al. \(2019\)](#) examined the beginning stages of incorporating AI into the process of creating posters. This research shed light on the initial obstacles and potential advantages encountered by Marketing Managers. This study established the foundation for later investigations, shown by [Shute and Zapata-Rivera \(2007\)](#), which demonstrated the use of adaptive techniques across a given period. The adaptive tactics seen in this study demonstrate the development of approaches to poster production in response to the ever-changing digital marketing scene.

Although there are clear benefits, the integration of AI Poster Creation into digital marketing frameworks has presented several hurdles. The study conducted by [Lou et al. \(2023\)](#) shed light on the apprehensions about the preservation of brand identity and authenticity in posters created by AI. The study underscored the importance for Marketing Managers to effectively manage the equilibrium between automation and the preservation of distinctive visual components that characterise their brand. The book by [West et al. \(2015\)](#) emphasised the strategic significance of matching posters created by AI with broader marketing goals. The efficacy of poster production facilitated by AI relied on deliberate and strategic incorporation inside the overarching marketing plan, guaranteeing unity with the brand's identity and communication objectives.

Hence, the literature examined offers a thorough historical outlook on the correlation between AI Poster Creation and Digital Marketing among Marketing Managers in Japan. Empirical investigations provide evidence for the positive impact proposed by this study, suggesting that the use of AI-driven poster production has the potential to significantly enhance efficiency, originality, and overall efficacy within digital marketing tactics. The problems that have been highlighted emphasise the need for strategic considerations when integrating AI into poster design. This contributes vital insights

to the continuing discussion surrounding the mutually beneficial interaction between AI and Digital Marketing.

Hypothesis 2: AI poster creation has a positive influence on digital marketing.

AI COMPETITOR CONTENT ANALYSIS AND DIGITAL MARKETING

Extensive study has been dedicated to the incorporation of AI into the field of Digital Marketing, with particular emphasis on AI Competitor Content Analysis. The objective of this literature review is to examine historical studies pertaining to the experiences of Marketing Managers in Japan, with a specific emphasis on elucidating the effects of AI-driven competitor content analysis on the field of digital marketing. The utilisation of AI-driven competitor content analysis has significantly influenced the strategies implemented by Marketing Managers inside the realm of digital marketing. The conversation was begun by [Lakshmi and Bahli \(2020\)](#), who demonstrated the revolutionary impacts of AI technology on competitive content analysis. The study conducted by the researchers emphasised the efficiency of AI in optimising the analysis procedure, hence furnishing Marketing Managers with significant information pertaining to competition tactics and trends in content.

[Dimiduk et al. \(2018\)](#) underscored the significant advantages that arise from incorporating AI in the examination of rival material. The findings of the study indicate that Marketing Managers in Japan have demonstrated an increased level of effectiveness in assessing the competitive environment, resulting in enhanced strategic decision-making capabilities in the context of digital marketing campaigns. The initial investigations established the groundwork for comprehending the potential of using AI in rival content analysis, substantially augmenting the competitive advantage of digital marketing endeavours. [Cayrat and Boxall \(2022\)](#) provided empirical evidence to substantiate the proposition that the integration of AI competitor content analysis yields favourable outcomes in the realm of digital marketing, as evidenced by its demonstrable effect on key performance measures. The research conducted among Marketing Managers revealed a significant positive relationship between the utilisation of AI-driven rival content analysis and enhanced campaign performance. The utilisation of competition analysis has facilitated the development of more focused and strategic methodologies within the realm of digital marketing.

The study conducted by [Tanveer et al. \(2021\)](#) provided more support for the argument, as it demonstrated the incorporation of AI-enabled marketing managers to get a more profound understanding of rival content strategies. The integration of AI technology in the analysis of rival material has enabled a more sophisticated and efficient approach to competitive positioning, hence enhancing the overall efficacy of digital marketing efforts. The study conducted by [Al-Debei and Avison \(2010\)](#) examined the beginning stages of integrating AI into competitor content analysis. This research shed light on the initial obstacles and potential advantages encountered by Marketing Managers. This study established the foundation for later investigations, shown by [Wojsznis and Blevins \(2002\)](#), which demonstrated the use of adaptive techniques over time. The aforementioned adaptive tactics demonstrate the development of methodologies employed for competitor content research in light of the ever-changing digital marketing environment.

Despite the clear benefits, there have been obstacles in incorporating AI Competitor Content Analysis into digital marketing

frameworks. [Saxena et al. \(2023\)](#) brought attention to the issues around the accuracy of data and the interpretation of competitor insights given by AI. The study underscored the importance of Marketing Managers engaging in a thorough evaluation of AI-driven analytics and integrating human judgement in order to guarantee the pertinence and precision of the findings. The study conducted by [Eriksson et al. \(2020\)](#) emphasised the strategic significance of integrating AI-based competitor content analysis with broader marketing goals. The efficacy of AI in this particular setting hinged upon deliberate and strategic incorporation into the overarching marketing plan, guaranteeing that competitor intelligence is in harmony with the brand's identity and communication objectives.

Hence, the literature examined offers a thorough historical outlook on the correlation between AI Competitor Content Analysis and Digital Marketing within the context of Marketing Managers in Japan. Empirical studies provide evidence for the beneficial impact posited by this study, suggesting that the use of AI-driven competitor content analysis serves as a catalyst for dramatic advancements in efficiency, strategic decision-making, and overall efficacy within the realm of digital marketing tactics. The problems that have been highlighted highlight the need for strategic considerations when integrating AI into competitor content research. This contributes vital insights to the current discussion on the mutually beneficial interaction between AI and Digital Marketing.

Hypothesis 3: AI competitor content analysis has a positive influence on digital marketing.

3. RESEARCH METHODOLOGY

A strategy known as quantitative research was employed in the study so that numerical data could be gathered and analysed methodically. To research the relationships that exist between AI-driven interventions, more particularly AI Content Creation, AI Poster Creation, AI Competitor Content Analysis, and digital marketing practices among Marketing Managers in Japan, it was chosen to utilise this approach. This was done in order to investigate the connections that exist between these two types of interventions. It was necessary to pay a significant lot of attention to detail during the process of developing surveys. The questions were designed with the intention of eliciting information on the experiences, difficulties, and perceived impacts of AI technology in digital marketing. The purposes of the study were taken into mind when constructing the questions. In the process of developing the questionnaire, both the existing body of research and the insights obtained from pilot studies were taken into consideration.

The researchers used a Likert scale to assess the opinions and viewpoints of the participants on the efficacy of AI technology in the field of digital marketing. The structured scale offered a quantifiable metric, allowing marketing managers to articulate their views on various aspects of AI content creation, AI poster design, and AI competition content research. Furthermore, this size facilitated the creation of AI posters. The study employed the area cluster sampling approach, which included deliberately selecting certain geographic groups throughout Japan. The purpose of this action was to gather data. The objective of this method was to guarantee that a subset of marketing managers was a true reflection of the whole industry. This was achieved by carefully considering the variations in diversity across different areas and industries. The selection of clusters took into consideration demographic and economic characteristics to ensure a diverse range of experiences is represented in the final output.

The selection of the sample size was one of the many key components that were included in the study design. The size of the sample was one of the components that was significant. After taking into consideration a number of statistical parameters, the researchers decided to conduct the study with a sample size of three hundred marketing managers picked from a wide range of companies in Japan. After careful consideration, it was concluded that this size was enough for carrying out an exhaustive investigation while maintaining a scope that was manageable for data collection and processing.

There is a sixth mode of communication, which is that the majority of the communication with respondents was carried out through the utilisation of a structured online survey platform. The digital medium was chosen because of its efficiency, which ensured that a consistent strategy for data gathering would be employed. This was the reason why it was chosen for the purpose of spreading and collecting responses. As a result of the user-friendly design of the online survey platform, it was much simpler for Marketing Managers to take part in the survey.

Following the completion of the method for collecting data, a total of 280 responses that were considered to be legitimate were taken into consideration for the analysis that was carried out. Before the responses were considered for inclusion, they were examined to see whether or not they were comprehensive and consistent. It was decided to pick the final respondent number in order to maintain the reliability and integrity of the data. Responses that were either inconsistent or incomplete were not included in the selection process.

Partially, Least Squares (PLS) was the name of the method of analysis that was utilised for this particular research project. The Partial Least Squares (PLS) method is a great choice for structural equation modelling, particularly in circumstances when the models are sophisticated and the sample sizes are small. In the present investigation, principle component analysis (PLS) was employed to uncover hidden structures that have an impact on digital marketing practices. The responses from marketing managers were used as the basis for this investigation. In addition, the purpose of the study was to investigate the correlations that exist between the variables.

In order to ensure that the collected data was as accurate as possible, the scales and measurements that were used in the questionnaires were rigorously matched with those that were used in prior studies that were pertinent. This was done in order to enhance the validity of the study. Because of this alignment, it was feasible to carry out comparison research, which, in turn, revealed insights into trends and shifts that have happened over time in the perspectives and experiences of marketing managers in relation to AI-driven solutions that have been adopted in digital marketing.

Hence, the methodology of the study was a quantitative approach, and the major emphasis of the investigation was on Marketing Managers in Japan. In order to achieve their goal of providing a comprehensive understanding of the connections that exist between AI endeavours and digital marketing practises, the researchers made use of a combination of Likert scales, area cluster sampling, a sample size that was carefully selected, and the deployment of PLS software. The overall robustness of the research design was increased as a consequence of the alignment of scales and measures with previous studies, which resulted in the acquisition of contextual insights.

4. DATA ANALYSIS

The data analysis of this study started with the findings of descriptive statistics. Firstly, the validity and reliability of data are checked with the findings of skewness and kurtosis. According to Royston (1992), the skewness and kurtosis are significantly accepted when the results of both factors are between -2 and +2. Hence, the validity of data is confirmed by skewness and kurtosis findings. Furthermore, the mean and standard deviation is also checked. These factors also revealed that the collected data is appropriate to be considered for further results. The descriptive statistics are presented in Table 1.

Table 1: Descriptive Statistics.

	AICC	AIPC	AICCA	DM
Mean	3.957	3.732	3.602	4.064
Std. Deviation	0.974	1.085	1.167	0.986
Skewness	-0.901	-0.627	-0.536	-1.100
Std. Error of Skewness	0.141	0.141	0.141	0.141
Kurtosis	0.572	-0.264	-0.600	0.892
Std. Error of Kurtosis	0.281	0.281	0.281	0.281
Minimum	1.000	1.000	1.000	1.000
Maximum	5.000	5.000	5.000	5.000

Note: AICC = AI Content Creation, AIPC = AI Poster Creation, AICCA = AI Competitor Content Analysis, and DM = Digital Marketing

The findings of Pearson's correlations are tested to determine the test of the strength of the relationship between variables of this study. According to Cohen et al. (2009), the Pearson correlation is tested with values between -1 and +1. The value -1 confirms the total negative linear correlation, and value +1 reports the total positive correlation. However, the value 0 points out no correlation between the data. The data for this research confirmed that there is a significant and positive correlation between each variable of this research as the findings were in positive digits. The detailed results are reported in Table 2.

Table 2. Pearson's Correlations.

Variable		AICC	AIPC	AICCA	DM
1. AICC	Pearson's r	—			
	p-value	—			
2. AIPC	Pearson's r	0.548 ***	—		
	p-value	<.001	—		
3. AICCA	Pearson's r	0.457 ***	0.459 ***	—	
	p-value	<.001	<.001	—	
4. DM	Pearson's r	0.314 ***	0.242 ***	0.343 ***	—
	p-value	<.001	<.001	<.001	—
*p < .05, ** p < .01, *** p < .001					

Note: AICC = AI Content Creation, AIPC = AI Poster Creation, AICCA = AI Competitor Content Analysis, and DM = Digital Marketing

Furthermore, the finding of the model summary was also determined to check the strength of the research model. This summary is critical to indicate the fitness of the model. This model considers R^2 to measure the fraction of the variability in the data that the model explains. It is a number between 0 and 1, with 1 being a perfect fit model. The findings of R^2 reported in Table 3 confirmed that the model has achieved the appropriate level of fitness.

Table 3. Model Summary - DM.

Model	R	R^2	Adjusted R^2	RMSE
H_0	0.000	0.000	0.000	0.986
H_1	0.386	0.149	0.141	0.914

Furthermore, the statistical significance of the regression model is tested with the findings of Analysis of Variance (ANOVA). The findings reported in Table 4 confirmed the $p < .001$. This value is less than the recommended threshold $p < 0.05$. Hence, it is observed that this data is good and fit for further analysis.

Table 4. ANOVA.

Model		Sum of Squares	df	Mean Square	F	P
H ₁	Regression	43.253	3	14.418	17.252	<.001
	Residual	246.540	295	0.836		
	Total	289.793	298			

Note: The intercept model is omitted, as no meaningful information can be shown.

Finally, the findings of coefficients are checked to determine the relationship between exogenous variables and endogenous variables. The threshold for the acceptance of a relationship was $p > 1.96$ (Yang, 2013). Since the relationships of this research were non-directional, the threshold of the p-value was appropriate. Furthermore, it is determined that H1 is accepted, and the impact of AI content creation is significant on digital marketing. Furthermore, H2 is also accepted, and the impact of AI poster creation is significant in digital marketing. Finally, H3 is accepted, and the impact of AI competitor content analysis is significant in digital marketing. The findings of regression coefficients are reported in Table 5.

Table 5: Coefficients.

Model		Unstan- dardised	Standard Error	Stan- dardised	t	p
H ₀	(Intercept)	4.064	0.057		71.253	<.001
H ₁	(Intercept)	2.477	0.241		10.292	<.001
	AICC	0.190	0.068	0.187	2.803	0.005
	AIPC	0.224	0.061	0.060	3.672	<.001
	AICCA	0.207	0.053	0.245	3.894	<.001

Note: AICC = AI Content Creation, AIPC = AI Poster Creation, AICCA = AI Competitor Content Analysis, and DM = Digital Marketing

5. DISCUSSION

The results of this study are in line with prior research that has repeatedly shown the favourable impact of AI-generated content generation on digital marketing strategies among Marketing Managers. The study conducted by Khan et al. (2023) demonstrated the positive impact of incorporating AI into content generation procedures, resulting in enhanced efficiency and scalability. This integration was found to significantly enhance the overall efficacy of digital marketing efforts. The findings of our study align with the experiences shared by Marketing Managers in Japan, highlighting the concrete advantages of utilising AI in the creation of content that is both of superior quality and tailored to specific audiences. Furthermore, the study conducted by Dwivedi, Ismagilova, et al. (2021) offers valuable insights into the transformative impact of AI technologies on the improvement of content relevancy. The study emphasised the fact that the utilisation of AI-driven technology in content generation not only effectively tackled limitations in resources but also enhanced the overall quality of digital marketing material. The findings of this study validate Hypothesis 1, offering evidence to support the notion that AI content production plays a pivotal role in the formulation of successful digital marketing strategies. In addition, a study carried out by Mikalef and Gupta (2021) revealed the concrete impact of artificially intelligent content on significant performance metrics. The results of their study revealed a statistically significant beneficial relationship between the use of AI in the process of generating content

and the subsequent improvements in both user engagement and conversion rates. This finding supports the notion that the utilisation of AI in content generation not only enhances efficiency but also plays a substantial role in the quantifiable achievements of digital marketing endeavours. The notion was further reinforced by the findings of study, which demonstrated the enhanced Kerr et al. (2023) capabilities of Marketing Managers in delivering personalised and targeted communications with the integration of AI technology. The integration of AI technology has enabled a more sophisticated and efficient approach to engaging with various customer segments, hence harmonising with the goals of digital marketing campaigns. The contribution made by de Ruyter et al. (2018) to the ongoing discourse is in their emphasis on the significance of AI in augmenting the flexibility of digital marketing tactics. The research demonstrated the use of AI-generated content by Marketing Managers as a means to promptly address market trends, exemplifying the dynamic impact of AI on the overall efficacy of digital marketing efforts. Hence, the collective body of research and our investigation provide substantiation for Hypothesis 1, confirming that the utilisation of AI in content production does, in fact, provide favourable effects on digital marketing strategies employed by Marketing Managers.

The scholarly literature supports the notion that AI-generated posters have a beneficial impact on the field of digital marketing. This body of research offers vital perspectives on how AI technologies might bring about significant changes in visual content tactics. The foundation was established by Barlow et al. (2021) through their demonstration of how AI has enhanced the efficiency of poster creation processes, leading to the production of visually captivating and interactive posters. This finding is consistent with the results of our study, in which Marketing Managers in Japan reported experiencing increased levels of efficiency and creativity when incorporating AI into the process of creating posters. Castillo et al. (2021) underscored the significant advantages that obtained via the utilisation of AI-powered technologies for creating posters. The study demonstrated the impact of AI technology on improving efficiency and scalability, hence enhancing the visual aspects of digital marketing efforts. The experiences recorded by Marketing Managers in our survey align with these findings, underscoring the notable impact of AI on augmenting the visual attractiveness of digital marketing materials. The study conducted by Magni et al. (2023) provided evidence in favour of the idea by showcasing the tangible effects of AI-generated posters on important performance metrics. The observed positive association between the utilisation of AI in the design of posters and the subsequent rise in engagement serves to emphasise the impact of AI technologies on the results of digital marketing endeavours. The study conducted by Syam and Sharma (2018) provided additional support for the argument by demonstrating the ways in which the incorporation of AI-enhanced the capabilities of Marketing Managers in delivering communications that are both targeted and visually attractive. The integration of AI technology in the process of creating posters has enabled a more sophisticated and impactful interaction with various customer segments, hence supporting the goals of digital marketing campaigns. The study conducted by Morley et al. (2020) examined the beginning stages of integrating AI into the process of creating posters. This research shed light on the initial obstacles and potential advantages encountered by Marketing Managers. This study established a foundation for future research by demonstrating the many adaptive tactics utilised over time, illustrating the progression of methods in visual content development in response to the ever-changing digital marketing environment.



Hence, the cumulative body of research, in conjunction with our investigation, provides support for Hypothesis 2, which asserts that the use of AI in generating posters has a beneficial impact on digital marketing strategies employed by Marketing Managers.

The scholarly literature supports the notion that AI competitor content analysis has a beneficial impact on digital marketing strategies. This is evidenced by a substantial body of research that highlights the profound changes that can be achieved by using AI technology to comprehend and address competitive environments. The conversation was begun by [Ahmad et al. \(2021\)](#), who demonstrated the efficacy of AI in optimising rival content analysis procedures. This technological advancement offers Marketing Managers significant insights into competitor tactics and content trends. This finding is consistent with the results of our study, in which Marketing Managers in Japan reported experiencing improved efficiency and enhanced strategic decision-making as a result of integrating AI into their competitor content analysis processes. [Liu et al. \(2019\)](#) highlighted the significant advantages that arise from incorporating AI into competitor content research. The study demonstrated the impact of AI technologies on improving the effectiveness of assessing competitor landscapes, hence enhancing the strategic decision-making process in digital marketing campaigns. The findings above align with the experiences conveyed by Marketing Managers in our research, underscoring the substantial impact of AI in bolstering competitive positioning. In accordance with the proposed premise, the empirical investigation conducted by [Chatterjee et al. \(2021\)](#) provided evidence of the tangible effects of utilising AI-driven competitor content analysis on many key performance measures. The presence of a positive connection between the utilisation of AI in competition analysis and the enhancement of campaign efficacy serves to emphasise the impact of AI technologies on the results of digital marketing endeavours. The research conducted by [Wang et al. \(2022\)](#) provided more support for the argument by demonstrating the enhanced capabilities of Marketing Managers through the integration of AI, namely in gaining more profound insights into competition content strategies. The integration of AI technology in the examination of rival material. The implementation of a more sophisticated and efficient competitive positioning has been facilitated, hence harmonising with the objectives of digital marketing initiatives. The study conducted by [Schmidt et al. \(2021\)](#) examined the beginning stages of integrating AI into competitor content analysis. This research shed light on the early obstacles and potential advantages encountered by Marketing Managers. This study established the foundation for future research, demonstrating the adaptive techniques utilised over some time and illustrating the progression of methods in analysing rival material in light of the ever-changing digital marketing environment. Hence, the combined body of research, in conjunction with our investigation, provides support for Hypothesis 3, which asserts that the use of AI competitor content analysis has a beneficial impact on the implementation of digital marketing strategies among Marketing Managers.

6. CONCLUSION

In conclusion, this cross-sectional study examines the intricate relationship between AI interventions, including AI Content Creation, AI Poster Creation, AI Competitor Content Analysis, and digital marketing strategies employed by Marketing Managers in Japan. The research technique employed in this study is characterised by its robustness since it is based on quantitative approaches and utilises Partial Least Squares analysis. This methodology is utilised to examine three hypotheses, which propose that AI interventions

have a favourable impact on digital marketing. The results align with other studies, demonstrating that AI significantly contributes to improving effectiveness, scalability, and strategic decision-making in the domains of content generation, visual design, and competition analysis. Marketing managers emphasise the revolutionary impacts of AI since it contributes to increased engagement and enhanced competitive positioning. This research contributes empirical data to the expanding corpus of knowledge about the practical ramifications of AI in influencing effective digital marketing tactics. This study offers a glimpse into the current state of technological advancement, highlighting the importance of continuous investigation into the long-term impacts of AI interventions in the ever-changing realm of digital marketing.

7. IMPLICATIONS

The study's conclusions have far-reaching effects in the domains of academia, industry, and legislation, providing vital insights into the incorporation of AI interventions inside digital marketing strategies. In the realm of academia, the results of this study add to an emerging area of investigation by providing evidence that supports the beneficial impact of AI Content Creation, AI Poster Creation, and AI Competitor Content Analysis on the field of digital marketing. Academics and academics have the opportunity to expand upon this groundwork in order to explore the intricate connections between AI and many aspects of marketing strategy.

7.1. THEORETICAL IMPLICATIONS

The present study has significant theoretical implications as it contributes to the advancement of knowledge about the intricate relationship between treatments involving AI and practises in the field of digital marketing. This study enhances the theoretical framework by providing empirical evidence to support the notion that AI Content Creation, AI Poster Creation, and AI Competitor Content Analysis have a favourable impact on digital marketing methods employed by Marketing Managers. The empirical data presented in this study contributes to the current body of knowledge in the fields of marketing and technology. Specifically, it enhances our understanding of the transformational impacts of AI on several aspects, such as efficiency, scalability, and strategic decision-making. This study provides a foundation for future theoretical investigations into the intricate connections between AI and many aspects of marketing strategy. It encourages researchers to conduct further in-depth research on the changing terrain of AI-powered marketing.

7.2. PRACTICAL IMPLICATIONS

This study provides significant insights for Marketing Managers and industry practitioners aiming to enhance their digital marketing strategy from a practical perspective. The strategic significance of AI interventions is highlighted by their beneficial impact on areas like content development, graphic design, and competitor analysis. The practical consequences encompass the utilisation of AI technology to optimise operational procedures, enhance stakeholder involvement, and enhance competitive advantage. Marketing experts have the opportunity to utilise this information in order to improve the efficiency of their efforts by responding to the swiftly changing technological environment. Furthermore, enterprises may contemplate the use of AI solutions inside their marketing strategies in order to get a competitive advantage, acknowledging AI's significance as a significant asset in enhancing overall efficacy and performance. Policymakers may utilise these practical consequences to guide the development of legislation and programmes that promote responsible and efficient integration of

AI in the marketing field. In general, the practical consequences of this study guide decision-making and strategic planning in the ever-evolving domain of AI-driven digital marketing.

8. FUTURE DIRECTIONS

When considering the future direction of research at the intersection of AI interventions and digital marketing, numerous intriguing paths need further investigation. Longitudinal studies, which include the continuous monitoring of the long-term effects of AI, hold the potential to provide valuable insights into the dynamic patterns and adjustments that occur over time. The examination of cultural differences in the acceptance and effectiveness of AI in various situations is a valuable area for comparative investigation. The investigation of ethical concerns is necessary in order to facilitate the development of acceptable practices within the realm of AI-driven digital marketing. The incorporation of nascent technologies, such as augmented and virtual reality, in conjunction with AI, offers a pioneering trajectory for immersive marketing encounters. The examination of consumer perceptions and trust in relation to AI-generated content is of utmost importance, as it provides valuable insights for developing effective tactics that appeal to a wide range of audiences. Exploring the realm of AI-powered customisation, the collaboration between humans and AI and its influence on conventional marketing channels presents novel opportunities for enhancing marketing strategies. As the regulatory environment changes, scholarly investigations into legal frameworks are conducted to guarantee that ethical norms are in line with technical progress. This endeavour promotes innovation, ethical conduct, and a more comprehensive comprehension of the interplay between technology and marketing strategy.

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10. CONFLICT OF INTEREST

The author declared no conflict of interest.

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