Artificial intelligence, emerging technologies, and digital marketing system among gaming companies: Basis for powered digital marketing system framework

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Abstract

This study explored the convergence of artificial intelligence (AI), emerging technologies, and digital marketing systems within China's rapidly growing gaming industry. It assessed these components in gaming companies to construct a framework for a more effective digital marketing system. The research focused on AI adoption, user engagement, and the challenges associated with its use, while also investigating the adoption of technologies like virtual reality (VR), augmented reality (AR), and cloud gaming. Additionally, the effectiveness of current digital marketing systems—evaluating brand awareness, lead generation, and sales conversion was examined. This analysis ultimately sought to test the relationships between these factors and develop a framework that gaming companies can leverage for strategic growth. Key findings included the integral role of AI in enhancing user engagement and addressing challenges within game development, as well as the importance of emerging technologies in shaping user experiences. The digital marketing systems analysis highlighted that well-targeted social media campaigns, engaging content, and influencer collaborations are crucial for building brand awareness and driving sales conversion. This study also employed a quantitative research design, surveying 400 gaming company employees, and used Pearson Correlation and Regression Analysis to uncover the relationships between these factors.

Keywords: AI usage, emerging technologies, digital marketing systems, brand awareness, lead generation, sales conversion

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1. Introduction

In the rapidly evolving landscape of the gaming industry, particularly in China, the convergence of artificial intelligence (AI), emerging technologies, and digital marketing systems has become paramount for companies striving to stay competitive and relevant in the market (Chen et al., 2022). This study embarks on a comprehensive exploration aimed at understanding and assessing these vital components within gaming companies, with the ultimate goal of constructing a framework for a powered digital marketing system. There has been an impressive growth in the gaming industry over the past few years, driven by new technologies and the changing tastes of consumers. In keeping pace with the changes in the industry, gaming firms are employing the use of artificial intelligence and other new technologies in their digital marketing campaigns. Artificial intelligence, due to its capacity to handle big data and reach intelligent decisions offers facilitative tools for gaming companies looking to personalize marketing efforts, enhance customer engagement and increase revenue (Leung et al., 2021). Over the past decade, China's gaming industry has witnessed unprecedented growth and innovation, fueled by advancements in technology and changing consumer behaviors (Li et al., 2021). However, amidst this rapid expansion, the effective integration and utilization of AI, emerging technologies, and digital marketing strategies have emerged as critical determinants of success.

In the rapidly evolving landscape of the gaming industry, particularly in China, three major variables have emerged as central to understanding and enhancing performance: artificial intelligence (AI), emerging technologies, and digital marketing systems. Each of these variables brings unique advantages while presenting specific challenges that companies must address. Artificial Intelligence (AI) has transformed gaming companies by enhancing user engagement, optimizing in-game experiences, and automating customer service functions. According to a study by Wang (2023), gaming companies in China often struggle to balance the cost of AI adoption with its benefits, especially when navigating regulatory frameworks that emphasize user data protection. One of the primary issues that the gaming industry has to contend with is the vast amount of data produced from varied operations. Data AI power tools can assist these companies in analyzing the data in a more useful way where they derive information about the buying habits, tastes, and trends of consumers. With a better understanding of their core demographic, however, gaming businesses are able to position and deliver their advertising messages and initiatives more effectively (Cheung et al., 2023).

Emerging technologies, including virtual reality (VR), augmented reality (AR), and cloud gaming, are reshaping the way gaming content is created and consumed. Augmented reality (AR), virtual reality (VR), and blockchain among others are technologies of the present which are infiltrating the gaming business massively. Interesting, these technologies seek to improve the gaming experience, open up new markets, and offer new forms of extreme marketing. AR and VR are capable of such advertising, while blockchain recognizes the emergence of advanced business models that facilitate online gaming and monetary exchange (Lee et al., 2023). Despite these advancements, challenges remain. High production costs, limited hardware compatibility, and the underdeveloped infrastructure for cloud gaming can hinder widespread adoption.

Digital marketing systems are essential for gaming companies to maintain brand visibility, generate leads, and convert sales. Social media platforms, influencer partnerships, and automated marketing tools help companies reach their target audiences more effectively. However, oversaturation of digital ads and changing consumer preferences present challenges. Gaming companies must continually innovate their marketing strategies to stay relevant and engage users meaningfully (Wang et al., 2022). Furthermore, navigating the complex digital ecosystem in China, where government regulations on online content are stringent, adds additional complexity to developing effective marketing strategies. Nevertheless, integrating AI and other

advanced technologies in the gaming sphere comes with issues and challenges. The peoples' aspects, including data privacy of the users, the ethics of the technology, and the resources of trained personnel possessing AI skills have to be resolved in order to ensure the success of the technological adoption. In addition, gaming companies need to have a good digital marketing systems and appropriate mechanisms to take advantage of AI and other emerging technologies fully.

This study focused on the artificial intelligence (AI), emerging technologies and their digital marketing systems, and the gaming context and barriers in order to appreciate the existing scenario and find opportunities for the growth of a powered digital marketing system. This system is strategically positioned to benefit gaming organizations and their marketing goals in the fast-evolving gaming performance market. As the proponent of this study, the rationale is driven by the need to address these gaps and challenges in the integration of AI, emerging technologies, and digital marketing systems within the Chinese gaming industry. This study provides a clearer understanding of how gaming companies can strategically use these technologies to optimize performance, improve customer engagement, and drive sustainable growth in a competitive market. By examining the relationship of these three critical variables, the study aimed to offer actionable insights that will culminate in the development of a powered digital marketing system framework tailored specifically to the needs of gaming industry. Ultimately, the findings of this study culminated in the development of a powered digital marketing system framework tailored specifically for gaming companies. This framework will serve as a strategic blueprint, providing actionable insights and guidelines to enhance marketing effectiveness, optimize resource allocation, and drive sustainable growth within the dynamic and competitive landscape of the Chinese gaming industry.

Objectives of the Study - The study aimed to assess the artificial intelligence, emerging technologies and digital marketing systems among gaming companies in China that will be the basis in developing a powered digital marketing system framework. Specifically, this study determined the artificial intelligence as to adoption, user engagement and challenges; described the emerging technologies in terms of virtual reality, augmented reality and cloud gaming; assessed the digital marketing system as to brand awareness, lead generation and sales conversion; tested the significant relationship between artificial intelligence, emerging technologies and digital marketing system; and developed a powered digital marketing system framework for gaming companies.

2. Methods

Research Design - This study employed a descriptive research design to systematically collect data and explore the relationships among the variables of interest. This design allows for a detailed understanding of the current state of dance teacher support, learning beliefs, and self-regulated learning experiences among dance student. The design was chosen to provide a comprehensive overview of the relationships between these key variables, offering valuable insights into the dynamics that influence dance students' learning experiences.

Participants of the Study - This study surveyed a total of 400 participants, comprising employees and managers from five gaming companies located in the Guangdong province, specifically in the cities of Guangzhou and Shenzhen. These cities were chosen due to their prominence in the technology and gaming sectors, making them ideal locations for exploring the integration of emerging technologies in the gaming industry. These participants were selected from companies representing a range of sectors within the gaming industry, providing a broad perspective on the use of AI, emerging technologies, and digital marketing systems. The participants were invited to complete an online questionnaire designed to assess their experiences and insights regarding these technologies' impact on their companies. A purposive-convenience sampling method was used to select participants for this study. This approach was chosen to ensure that the sample included individuals with direct knowledge and experience in the gaming industry's technology and digital marketing strategies, while also taking advantage of the accessibility of participants who were available to respond to the online questionnaire. Purposive sampling ensured that participants had relevant expertise, while convenience sampling allowed for the efficient collection of responses from a large group within a reasonable time-frame.

Instrument of the Study - The questionnaire used in this study was a self-made tool, tailored specifically to meet the research objectives. The advantage of using a self-made questionnaire is its flexibility and relevance. It allows researchers to design questions that directly address the specific variables and context under study, ensuring that all aspects of the research are covered comprehensively. Unlike adapted questionnaires, a self-made tool can be more targeted, allowing for the inclusion of specific items relevant to the research population, which in this case are employees and managers in the Chinese gaming industry. The questionnaire was divided into three sub-scales: AI Usage, Emerging Technologies, and Digital Marketing System. It originally contained 50 questions, but after refinement, it was reduced to 45 questions using a 4-point Likert scale. AI Usage: This section aimed to assess the adoption, user engagement, and challenges faced by companies in the implementation of AI within the gaming sector. Questions addressed how AI is used for automation, personalization, and data-driven decision-making. Emerging Technologies: This sub-scale focused on technologies such as virtual reality (VR), augmented reality (AR), and cloud gaming. The questions were designed to evaluate the companies' integration of these technologies and their impact on product innovation and user engagement. Digital Marketing System: The final section explored the use of digital marketing tools and platforms. It assessed areas such as brand awareness, lead generation, and sales conversion, with the aim of understanding how digital marketing systems contribute to competitive advantage and market performance.

By using a self-made questionnaire, the study ensured that the questions were highly relevant to the gaming industry in China, providing more accurate and actionable insights. The survey was conducted online, inviting participants through social media, email, and internal company systems. Quality control measures, including data cleaning and logic checks, were implemented to ensure the reliability and validity of the results. Following the measures, the reliability of the questionnaire was found to be very high, with the overall Alpha value approaching 1.0. This indicates a high degree of consistency across different dimensions, ensuring the reliability and trustworthiness of the results. Before the actual data gathering, a content validation process was conducted to ensure the questionnaire's relevance and appropriateness to the study's objectives. A panel of experts in artificial intelligence, emerging technologies, and digital marketing within the gaming industry reviewed the questionnaire. They provided feedback to refine the questions, enhancing clarity, scope, and relevance.

Table A
Reliability Summary Table – Artificial Intelligence, Emerging Technologies and Digital Marketing System Among Gaming Companies Instrument

Indicators	Cronbach Alpha	Remarks
Artificial Intelligence, Emerging Technologies and Digital Marketing System Among Gaming Companies Instrument	.986	Excellent
Per variable		
Artificial Intelligence	.973	Excellent
AI Adoption	.955	Excellent
User engagement	.958	Excellent
User Challenges	.902	Excellent
Emerging Technologies	.979	Excellent
Virtual Reality	.934	Excellent
Augmented Reality	.960	Excellent
Cloud Technology	.919	Excellent
Digital Marketing System	.970	Excellent
Brand Awareness	.902	Excellent
Lead Generation	.928	Excellent
Sales Conversion	.955	Excellent

George and Mallery (2003) provide the following rules of thumb:"_ > .9 – Excellent, _ > .8 – Good, _ > .7 – Acceptable, _ > .6 – Questionable, _ > .5 – Poor, and_ < .5 – Unacceptable"

After the content validation, the questionnaire underwent a reliability test using Cronbach's Alpha, as presented in the table. Each subscale showed a high reliability score, with Cronbach Alpha values exceeding 0.9, indicating excellent internal consistency across all variables. This high level of reliability ensured the consistency and dependability of the instrument before proceeding to the actual data collection.

Data Gathering Procedure - The self-made questionnaire was carefully designed to ensure that it accurately

captures the necessary information from respondents. The questionnaire underwent content validation from experts and pilot testing was done to determine its reliability. Data collection and other related processes were preceded by the approval of the HR head of the organization. It entails seeking formal permission with a detailed request stating the objectives of the study and how the company will benefit from it, and the agreement on data confidentiality. In obtaining permission, the researcher is assured that the target population will be accessed, and the study was carried out without any difficulty. After permission was granted, the researcher proceeded with d collection of data using online platform. The online platform offers convenience for respondents and efficient data management. By distributing the survey using an online platform, the researcher was able to reach more respondents. After collating the data, appropriate statistical tools were applied to address the research objectives. The final stage involves interpreting and analyzing the data based on the results.

Data Analysis - Weighted mean and rank were used to determine the artificial intelligence as to adoption, user engagement and challenges; to describe the emerging technologies in terms of virtual reality, augmented reality and cloud gaming; and to assess the digital marketing system as to brand awareness, lead generation and sales conversion. The result of Shapiro-Wilk Test showed that p-values of all variables were less than 0.05 which means that the data set was not normally distributed. Therefore, Spearman rho was used as part of the non-parametric tests to determine the significant relationship. All analyses were performed using SPSS version 28.

Ethical Considerations - Ethical consideration is integral to the conduct of this research to ensure that all information gathered is used solely for research purposes, thereby maintaining the quality and integrity of the study. The researcher obtained informed consent from the participants through a letter and clear communication, ensuring that they understand the purpose of the study and are prepared to respond to the questions involved. Confidentiality and anonymity of the respondents were prioritized by refraining from collecting any personally identifiable information, such as names, while they complete the questionnaires. Participation was entirely voluntary, with respondents free to withdraw from the study at any time without any consequences. Furthermore, the researcher took all necessary precautions to ensure that none of the respondent's experienced harm or discomfort during the research process. The safety and well-being of all participants was of utmost priority throughout the study.

3. Results and discussion

Table 1
Summary Table on Artificial Intelligence

Key Result Areas	Composite Mean	Verbal Interpretation	Rank
Adoption	3.18	Agree	1
User Engagement	3.14	Agree	2
Challenges	3.07	Agree	3
Grand Composite Mean	3.13	Agree	

Legend: 1.0 to 1.49 (Strongly Disagree), 1.5 to 2.49 (Disagree), 2.5 to 3.49 (Agree), 3.5 to 4.00 (Strongly Agree)

Table 1 summarizes the key result areas regarding the integration of AI into game development, highlighting the composite mean and overall agreement across respondents. Adoption obtained a composite mean of 3.18. Respondents generally believe that AI adoption is progressing smoothly, indicating a positive attitude towards the implementation of AI technologies. Companies such as Amazon and PwC highlight the need for effective training programs to promote this adoption, indicating the growing importance of AI in the modern workplace (Danesi, 2024). Meanwhile, User Engagement got a composite mean of 3.14. The agreement here indicates that AI is enhancing user engagement in games. Lastly, challenges got a composite mean of 3.07. Despite the positive trends in adoption and engagement, respondents acknowledged that there are challenges in integrating AI. Issues such as insufficient training, skills gaps, and the complexity of AI tools remain common concerns in the industry. The composite average of 3.13 reflects a generally positive view of the role of AI in the gaming industry, while also identifying areas for further improvement.

Table 2
Summary Table on Emerging Technologies

Key Result Areas	Composite Mean	Verbal Interpretation	Rank
Virtual Reality	3.08	Agree	3
Augmented Reality	3.11	Agree	2
Cloud Gaming	3.14	Agree	1
Grand Composite Mean	3.11	Agree	

Legend: 1.0 to 1.49 (Strongly Disagree), 1.5 to 2.49 (Disagree), 2.5 to 3.49 (Agree), 3.5 to 4.00 (Strongly Agree)

The summary in Table 2 highlights companies' assessments of various emerging technologies, with an overall composite mean of 3.11, indicating that employees generally agree on the integration and potential of these technologies in the gaming industry. Overall, the composite mean is 3.11, reflecting a generally positive attitude towards emerging technologies within the company. This suggests that the company is gradually integrating these technologies into its development process, although there may be some challenges and differences in the speed of adoption between them. As cloud gaming continues to lead, AR and VR are expected to play an increasingly important role in shaping the future of game development (Ullah et al., 2018).

The results show that cloud gaming ranked the highest with a composite mean of 3.14, indicating that companies see great potential in leveraging cloud technology for game development. This is consistent with Ab et al. (2022), who highlighted the increasing reliance of game creation on cloud solutions for scalability and flexibility, as well as employees' positive acceptance of cloud-based tools. Augmented reality (AR) ranked second with a composite mean of 3.11, reflecting companies' recognition of AR's potential to create immersive gaming experiences. Virtual reality (VR) ranked third with a composite mean of 3.08. While promising, it scored slightly lower than cloud gaming and AR, indicating that VR may still face challenges in terms of widespread adoption or resource allocation within companies. Deshbandhu (2024) noted that while VR technology is developing, its adoption rate remains low due to high hardware costs and poor user adaptability.

Table 3
Summary Table on Digital Marketing System

Key Result Areas	Composite Mean	Verbal Interpretation	Rank
Brand Awareness	3.16	Agree	2.5
Lead Generation	3.16	Agree	2.5
Sales Conversion	3.18	Agree	1
Grand Composite Mean	3.17	Agree	

Legend: 1.0 to 1.49 (Strongly Disagree), 1.5 to 2.49 (Disagree), 2.5 to 3.49 (Agree), 3.5 to 4.00 (Strongly Agree)

Table 3 shows a summary of the key result areas in the digital marketing system, which have a composite mean of 3.17, indicating that employees generally agree on the effectiveness of the company's digital marketing strategies in different areas. Sales Conversion Rate (combined average: 3.18) ranked first, which highlights the company's strength in converting leads into sales. The data suggest that strategies such as high-quality content creation, user-generated content, and efficient customer support are key factors in driving conversions. High scores indicate that these efforts are effectively converting engagement into financial results (Kotler et al, 2010; Pulizzi, 2013).

On the other hand, Brand Awareness (composite mean: 3.16) ranked second which indicates that the company has achieved some success in building brand awareness using digital marketing strategies such as social media activity and content creation. Increasing engagement through strategic content and collaboration with influencers has helped increase awareness but indicates that there is still room for growth (Chaffey et al., 2009; Ryan, 2016). Also in the same rank is Lead Generation (composite mean: 3.16) which indicates that the company is effectively using digital marketing channels such as social media, search engines, and engaging content to attract leads. However, the average score indicates that while lead generation is working, further improvement may be needed to fully optimize the effectiveness and reach of marketing activities (Charlesworth, 2014; Rowles, 2022). Overall, the results indicate that the company's digital marketing system performs well, especially in converting sales and generating leads, although there is potential for further improvement in brand awareness.

Table 4

Relationship Between Artificial Intelligence and Emerging Technologies

Variables	rho	p-value	Interpretation
Adoption			
Virtual Reality	0.713**	<.001	Highly Significant
Augmented Reality	0.692**	<.001	Highly Significant
Cloud Gaming	0.754**	<.001	Highly Significant
User Engagement			
Virtual Reality	0.822**	<.001	Highly Significant
Augmented Reality	0.770**	<.001	Highly Significant
Cloud Gaming	0.791**	<.001	Highly Significant
Challenges			
Virtual Reality	0.735**	<.001	Highly Significant
Augmented Reality	0.726**	<.001	Highly Significant
Cloud Gaming	0.722**	<.001	Highly Significant

**. Correlation is significant at the 0.01 level.

Table 4 shows strong and statistically significant correlations between artificial intelligence (AI) and emerging technologies—Virtual Reality (VR), Augmented Reality (AR), and Cloud Gaming—across the variables of adoption, user engagement, and challenges. In terms of Adoption, the findings show that AI adoption is closely linked with all three emerging technologies, particularly with Cloud Gaming (rho = 0.754). This strong correlation suggests that as companies increasingly adopt AI-driven tools and processes, Cloud Gaming benefits significantly. This is likely due to AI's role in optimizing game performance, personalizing user experiences, and streamlining cloud-based operations (Yadav et al., 2024). Likewise, VR (rho = 0.713) and AR (rho = 0.692) also see significant positive impacts from AI adoption, indicating that AI's capabilities in data processing, real-time interaction, and immersive simulations are facilitating growth in these areas (Turan et al., 2023). For User Engagement, AI appears to have the strongest relationship with VR (rho = 0.822), highlighting the pivotal role AI plays in creating interactive, responsive environments that keep users engaged. AI-driven enhancements, such as improved motion tracking and personalized user interfaces, contribute to the richness of VR experiences (Hawarna, 2023). Similarly, AR and Cloud Gaming also show strong positive correlations with AI (rho = 0.770 and 0.791, respectively), suggesting that AI-powered features like real-time object recognition in AR and adaptive AI opponents in cloud-based games enhance user engagement.

Regarding challenges, AI's correlation with these emerging technologies is again strong, though slightly lower than in other areas. VR shows a significant relationship with AI challenges (rho = 0.735), followed closely by AR (rho = 0.726) and Cloud Gaming (rho = 0.722). These figures reflect that while AI adoption drives innovation, it also brings challenges, such as the need for specialized skills, infrastructure costs, and concerns over data security (Cooper, 2024). These challenges may be more pronounced in VR and AR due to the complexity of integrating AI with hardware and sensors, while Cloud Gaming faces issues related to latency and data management (Uddin et al, 2024). In summary, the findings illustrate that AI has a powerful influence on the development and success of emerging technologies, driving adoption, enhancing user engagement, and presenting challenges that companies need to manage. AI's integration with these technologies is not only shaping their current applications but also paving the way for future advancements in gaming and immersive digital experiences.

Table 5

Relationship Between Artificial Intelligence and Digital Marketing System

Variables	rho	p-value	Interpretation
Virtual Reality			
Brand Awareness	0.744**	<.001	Highly Significant
Lead Generation	0.754**	<.001	Highly Significant
Sales Conversion	0.726**	<.001	Highly Significant
Augmented Reality			
Brand Awareness	0.667**	<.001	Highly Significant
Lead Generation	0..669*	<.001	Highly Significant
Sales Conversion	0.692**	<.001	Highly Significant

Cloud Gaming			
Brand Awareness	0.789**	<.001	Highly Significant
Lead Generation	0.771**	<.001	Highly Significant
Sales Conversion	0.766**	<.001	Highly Significant

**. Correlation is significant at the 0.01 level.

Table 5 demonstrates a strong relationship between Artificial Intelligence (AI) and key components of the Digital Marketing System across three variables: Adoption, User Engagement, and Challenges, with each variable showing a statistically significant positive correlation with Brand Awareness, Lead Generation, and Sales Conversion. The correlation coefficients for AI adoption show strong positive relationships with Brand Awareness (rho = 0.656), Lead Generation (rho = 0.646), and Sales Conversion (rho = 0.632), all highly significant (p-value < .001). This indicates that AI adoption plays a crucial role in improving these digital marketing areas. AI is being used to create more personalized brand experiences, target advertising more effectively, and optimize the conversion process, leading to significant gains across these metrics (Chaffey et al., 2009). AI's correlation with user engagement is even stronger, with Brand Awareness (rho = 0.712), Lead Generation (rho = 0.691), and Sales Conversion (rho = 0.696) showing highly significant correlations (p-value < .001). AI-driven engagement tools, such as chatbots, personalized content recommendations, and predictive analytics, are helping companies better engage with their audiences, thus boosting brand awareness, generating more leads, and increasing conversion rates (Grewal et al., 2017).

The challenges faced by AI integration also show strong positive correlations with Brand Awareness (rho = 0.664), Lead Generation (rho = 0.645), and Sales Conversion (rho = 0.687), all highly significant (p-value < .001). While AI offers great potential for enhancing marketing efforts, it also presents challenges, such as the need for technical expertise, data management, and overcoming privacy concerns. These challenges may affect how effectively companies can implement AI strategies, but the positive correlation suggests that organizations are still seeing considerable benefits despite these hurdles (Piroozfar et al., 2013). In summary, AI has a transformative impact on digital marketing systems by driving improvements in brand awareness, lead generation, and sales conversion while also presenting challenges that organizations must address. These findings are consistent with the broader literature on AI's role in enhancing marketing efficiency and effectiveness.

Table 6 examines the relationship between different emerging technologies (Virtual Reality, Augmented Reality, and Cloud Gaming) and aspects of the Digital Marketing System (Brand Awareness, Lead Generation, and Sales Conversion). The correlation coefficient (rho = 0.744) shows a strong positive relationship between VR and brand awareness. The p-value < .001 indicates this relationship is highly significant. An even stronger positive correlation (rho = 0.754) between VR and lead generation is observed, with a highly significant p-value < .001. Further, there is a strong positive correlation (rho = 0.726) between VR and sales conversion, indicating highly significant. A strong positive correlation (rho = 0.667) between AR and brand awareness, is also found, indicating a highly significant p-value < .001. A similar correlation (rho = 0.669) between AR and lead generation, is also highly significant. A strong positive correlation (rho = 0.692) between AR and sales conversion, also reflects highly significant.

Table 6
Relationship Between Emerging Technologies and Digital Marketing System

Variables	rho	p-value	Interpretation
Virtual Reality			
Brand Awareness	0.744**	<.001	Highly Significant
Lead Generation	0.754**	<.001	Highly Significant
Sales Conversion	0.726**	<.001	Highly Significant
Augmented Reality			
Brand Awareness	0.667**	<.001	Highly Significant
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Cloud Gaming			
Brand Awareness	0.789**	<.001	Highly Significant
Lead Generation	0.771**	<.001	Highly Significant
Sales Conversion	0.766**	<.001	Highly Significant

**. Correlation is significant at the 0.01 level.

The strongest positive correlation among the three technologies (rho = 0.789) between Cloud Gaming and brand awareness, shows a highly significant p-value < .001. Another strong correlation (rho = 0.771) between Cloud Gaming and lead generation, reflects highly significant. A strong positive correlation (rho = 0.766) between Cloud Gaming and sales conversion, also reflects a highly significant p-value < .001. Cloud Gaming has the strongest correlations with all three digital marketing metrics (Brand Awareness, Lead Generation, and Sales Conversion), indicating that it is highly influential in these areas. Virtual Reality also shows strong positive relationships with the digital marketing system, particularly in lead generation (rho = 0.754). Augmented Reality, while still strongly correlated, has slightly lower correlation values compared to the other two technologies but remains highly significant. This indicates that emerging technologies such as VR, AR, and Cloud Gaming have strong and highly significant impacts on key digital marketing metrics. Cloud Gaming appears to have the most substantial effect, followed by Virtual Reality and Augmented Reality.

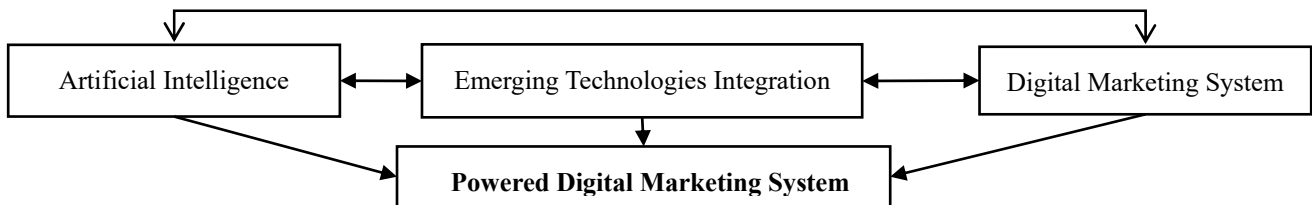**Powered Digital Marketing System Framework**

Figure 1. Powered Digital Marketing System Framework

The Powered Digital Marketing System Framework incorporates modern theoretical advancements, such as advanced AI and other emerging technologies and an effective digital marketing system to enhance the marketing complexities of gaming firms. In this framework, Artificial Intelligence (AI) is at the center of everything. The flexible and advanced tools of predictive analytics can examine through vast databases to establish a probable cause of a player's behavior. This supports campaigns automation and consistency in resonating with marketing messages even to individuals. Customer Care is also fitted into the system as AI receives and manages players" feedback and questions courtesy of Natural Language Processing (NLP). In addition, the image and video capabilities of AI also investigate the visual aspects of the gameplay videos and assume patterns to aid in designing effective promotional tools. Emerging Technologies are equally instrumental within this structure. In particular, the concepts of Virtual Reality (VR) and Augmented Reality (AR) make it possible to create compelling marketing campaigns in which users are given an opportunity to test games before buying them or view special content otherwise unavailable. Moreover, dynamic gaming content can be powered by the Internet of Things, enabling suggestions and incentives to be given according to players' behavioral patterns and individual preferences.

It is important to have a Digital Marketing System in place for the Powered Digital Marketing System Framework to be functional. Customer Relationship Management (CRM) behavioral systems record as players history – interactions, preferences, and purchases. In fact, AI brings in additional value to CRMs by facilitating processes and increasing the levels of intelligence inside the CRM. Social Media Marketing applications that include artificial intelligence can assist in handling social media, locating relevant individuals, and measuring levels of engagement. With the help of AI technology, email marketing can be optimized respectively so that surveys will be tailored to the liking of the respondent thereby enhancing the response rate plus the click rate as well. In addition, even Search Engine Optimization (SEO) has become improved through AI whereby use of

Artificial Intelligence improves rankings on search engines and brings in more clients without the need of paid ads. However, they have a very wide array of opportunities for growth, customer satisfaction taking center stage through the creation of highly targeted marketing campaigns that incorporates the full potential of AI, emerging technologies and in-built Digital Marketing strategies. This Powered Digital Marketing System Framework contains a wide range of advantages such as the ability to provide tailored services, increased customer interaction, enhanced management of resources, making use of metrics and statistics in running the business, and being able to beat the competition.

4. Conclusions and recommendations

Gaming companies agreed to the use of Artificial Intelligence (AI). Also, users are found to be engaged; however, challenges are encountered. Majority of the respondents agreed that the emerging technologies of Virtual Reality (VR), Augmented Reality (AR), and Cloud Gaming are on the edge to revolutionize the gaming industry. The digital marketing system of gaming companies enhanced brand awareness, generate leads, and drives sales conversions. A highly significant relationship was found between artificial intelligence, emerging technologies and digital marketing system. A powered digital marketing system framework was developed for gaming companies. The gaming companies may focus on overcoming challenges by investing in R&D, hiring AI specialists, and developing robust AI-based frameworks that enhance both game development and digital marketing outcomes. Gaming managers may explore synergies between different emerging technologies (VR, AR, Cloud Gaming) to create more cohesive and immersive gaming experiences. Integrating these technologies into a unified platform or ecosystem can amplify their individual strengths and drive more comprehensive user engagement. The gaming company managers may expand cloud infrastructure, increasing partnerships, and integrating cloud gaming more into promotional campaigns which could further enhance brand awareness, lead generation, and sales conversion. The powered digital marketing system framework may be used by gaming companies to stay ahead of the competition by adopting the latest technologies and new trends in digital marketing. Future researchers may examine how well the AI-enabled social media marketing tools can assist with interaction and in finding target audience. The examination on AI-based influencer identification and analysis tools on gaming marketing strategies can also be researched further.

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