

Evaluating the Promotional Effectiveness of Al-Generated vs. Traditional Images: A Comparative Study of Visual Styles

Ibrahim Hassan Ali

Associate Professor, Department of Digital Media and Communication, Effat University, Jeddah Faculty of Fine Arts, Alexandria University – Egypt jihassan@effatuniversity.edu.sa

Abstract:

This research aims to examine the impact of different types of images—including Human-designed images, real images, semi-realistic images, and AI-generated images—on promotional metrics in digital campaigns. Data were analyzed from posts on the Moslim Leader Facebook page between 2023 and 2024, assessing the promotional performance of images using key performance indicators (KPIs) such as reach, interactions, and interaction rate (Inter%). The findings indicate that semi-realistic images outperformed all other types in organic campaigns during 2023, achieving the highest reach and interaction rates, suggesting their effectiveness in capturing audience attention. AI-generated images demonstrated moderate performance in organic campaigns but achieved high interaction rates in paid campaigns, reflecting their ability to enhance engagement in sponsored advertisements. In contrast, real images and heman-designed images did not show a significant advantage over other types in terms of promotional performance. In 2024, the data did not reveal significant differences among the various image types, which may indicate market saturation with AIgenerated visual content or advancements in design technologies that have made all categories more competitive. This study highlights the importance of selecting the appropriate image type based on the nature of the campaign. Semi-realistic images can yield outstanding results in organic promotion, while AIgenerated images are an effective choice for paid campaigns. The study recommends developing design strategies that integrate artificial intelligence with human creativity to achieve optimal promotional performance amid ongoing digital transformations.

Paper History:

Paper received January 1, 2025, Accepted February 28, 2025, Published on line May 1, 2025

Keywords:

Artificial Intelligence, Image Generation, Islamic Content, Graphic Design Patterns, Digital Design.

References:

- 1. al-Ğundī, Aḥmad. (2019). Taʾtīr al-dakāʾ al-Iṣṭināʿī fī taṣmīm al-muḥtawā al-iʿlāmī li-l-aṭfāl: dirāsa tahlīliyya. Maǧallat al-Iʿlām ar-Raqmī, 12(3), 45-68.
- 2. aṣ-Ṣabbāġ, Muḥammad. (2021). Istrātīǧiyyāt at-taswīq ar-raqmī wa-taʾtīruhā ʿalā al-muntaǧāt at-tarbawiyya fī al-ʿālam al-ʿArabī. Dār al-Fikr al-ʿArabī, al-Qāhira.
- 3. Çelebioğlu, E. (2022). Muslim YouTubers in Turkey and the authoritarian male gaze on YouTube. Religions, 13(4), 318. https://doi.org/10.3390/rel13040318
- 4. Chaffey, D., & Ellis-Chadwick, F. (2019). Digital marketing: Strategy, implementation and practice (7th ed.). Pearson. https://doi.org/10.4324/9781351237788
- 5. Chen, Y. (2023). Comparing content marketing strategies of digital brands using machine learning. Humanities and Social Sciences Communications, 10(1). https://doi.org/10.1057/s41599-023-01544-x
- 6. Cialdini, R. B. (2001). The science of persuasion. Scientific American, 284(2), 76-81.
- 7. Firosha, A., Gusman, T., Sumema, S., & Rotama, H. (2023). Visual branding of sikapak timur village pariaman as media promotion based on visual complexity effect on social media. International Journal of Advanced Science Computing and Engineering, 5(3), 317-322. https://doi.org/10.62527/ijasce.5.3.187
- 8. Kalogiannakis, M., Zourmpakis, A., Menšíková, M., Lategan, F., Patelarou, A., Patelarou, E., et al. (2023). Use of an e-toolkit in the development of digital competencies in weeks of international teaching. Advances in Mobile Learning Educational Research, 3(1), 702-717. https://doi.org/10.25082/amler.2023.01.019
- 9. Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. Business Horizons, 53(1), 59-68.
- 10. Kim, J. and Lennon, S. J. (2013). Effects of reputation and website quality on online consumers' emotion, perceived risk and purchase intention. Journal of Research in Interactive Marketing, 7(1), 33-56. https://doi.org/10.1108/17505931311316734

- 11. Kim, M. J., Lee, C., & Jung, T. (2018). Exploring consumer behavior in virtual reality tourism using an extended stimulus-organism-response model. Journal of Travel Research, 59(1), 69-89. https://doi.org/10.1177/0047287518818915
- 12. Laing, S. and Masoodian, M. (2014). A study of the role of visual information in supporting ideation in graphic design. Journal of the Association for Information Science and Technology, 66(6), 1199-1211. https://doi.org/10.1002/asi.23231
- Lu, L. and Huang, L. (2022). Exploration and application of graphic design language based on artificial intelligence visual communication. Wireless Communications and Mobile Computing, 2022, 1-10. https://doi.org/10.1155/2022/9907303
- 14. Mayer, R. E. (2009). Multimedia learning (2nd ed.). Cambridge University Press. https://doi.org/10.1017/CBO9780511811678
- 15. Ming, J., Zeng, J., Bilal, M., Akram, U., & Fan, M. (2021). How social presence influences impulse buying behavior in live streaming commerce? the role of s-o-r theory. International Journal of Web Information Systems, 17(4), 300-320. https://doi.org/10.1108/ijwis-02-2021-0012
- Mou, Y., Gong, Y., & Ding, Z. (2024). Complement or substitute? a study of the impact of artificial intelligence on consumers' resistance. Marketing Intelligence & Amp; Planning, 42(4), 647-665. https://doi.org/10.1108/mip-04-2023-0187
- 17. Rahmi, R., Ramadhani, R., Nurhasnah, N., Namira, S., & Yaumas, N. (2021). Challenges of parents educating children's morals in Muslim families. International Journal of Multidisciplinary Research of Higher Education, 4(3), 104-110. https://doi.org/10.24036/ijmurhica.v4i3.90
- 18. Rietveld, R., Dolen, W. v., Mazloom, M., & Worring, M. (2020). What you feel, is what you like influence of message appeals on customer engagement on instagram. Journal of Interactive Marketing, 49(1), 20-53. https://doi.org/10.1016/j.intmar.2019.06.003
- 19. Russell, S. J., & Norvig, P. (2020). Artificial intelligence: A modern approach (4th ed.). Pearson. https://doi.org/10.5555/3478107
- 20. Samal, A., Mustafa, M., & Ibrahim, F. (2023). Character education through Islamic education: An implementation to high school Muslim students in North Minahasa. AL-ISHLAH: Jurnal Pendidikan, 15(2), 1288-1296. https://doi.org/10.35445/alishlah.v15i2.3730
- 21. Scholz, J., & Duffy, K. (2018). PECMA flow and digital engagement: A new perspective on user experience. Journal of Interactive Marketing, 44, 31-45. https://doi.org/10.1016/j.intmar.2018.05.002
- 22. Scholz, J., & Duffy, K. (2018). We are at home: How augmented reality reshapes mobile marketing and consumer-brand relationships. Journal of Retailing and Consumer Services, 44, 11-23.
- 23. Shen, J. and Sheng, L. (2023). The construction of visual aesthetic element system in graphic design based on big data. Applied Mathematics and Nonlinear Sciences, 9(1). https://doi.org/10.2478/amns.2023.2.00315
- 24. Touretzky, D., Gardner-McCune, C., Martin, F., & Seehorn, D. (2019). Envisioning AI for K-12: What should every child know about AI? Proceedings of the AAAI Conference on Artificial Intelligence, 33(1), 9795-9799. https://doi.org/10.1609/aaai.v33i01.33019795
- 25. Tuten, T. L., & Solomon, M. R. (2020). Social media marketing. Sage Publications.
- 26. Undheim, M. (2020). "We need sound too!" Children and teachers creating multimodal digital stories together. Nordic Journal of Digital Literacy, 15(3), 165-177. https://doi.org/10.18261/issn.1891-943x-2020-03-03
- 27. Vessel, E. A., Isik, A. I., Belfi, A. M., Stahl, J., & Starr, G. G. (2019). The default-mode network represents aesthetic appeal that generalizes across visual domains. Proceedings of the National Academy of Sciences, 116(38), 19155-19164. https://doi.org/10.1073/pnas.1902650116
- 28. Voorveld, H. A. M. (2019). Brand communication in social media: A research agenda. Journal of Advertising, 48(1), 14-26.
- 29. Wu, X. and Lai, I. K. W. (2021). The use of 360-degree virtual tours to promote mountain walking tourism: stimulus—organism—response model. Information Technology & Amp; Tourism, 24(1), 85-107. https://doi.org/10.1007/s40558-021-00218-1
- Yunyue, F. (2023). Research on graphic design language in digital media art—taking the application of graphic language in graphic design as an example. The Frontiers of Society, Science and Technology, 5(12). https://doi.org/10.25236/fsst.2023.051212

CITATION Ibrahim Ali (2025), Evaluating the Promotional Effectiveness of AI-Generated vs. Traditional Images: A Comparative Study of Visual Styles, International Design Journal, Vol. 15 No. 3, (May 2025) pp 49-61