Perception and Acceptance of AI-Generated Advertising Images among Generation Z

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Abstract

This research investigated the perception and acceptance of AI-generated advertising imagery. The goals are to 1) analyze the perception of advertising images generated by artificial intelligence, 2) examine opinions on the acceptance of AI-generated product images, and 3) investigate whether people in Generation Z from different demographic groups perceive AI-generated advertising images differently. Cochran's formula considered the sample size, and the confidence level was set at 95%. A quantitative study using questionnaires was conducted on 400 participants in Generation Z. Descriptive statistics like frequency distribution, percentage, and mean and inferential statistics like one-way ANOVA were employed to assess the research.

The research results were as follows: 1) The result revealed that most Generation Z participants (aged 19-27) can moderately distinguish between AI-generated and human-created images. 2) They generally hold a positive attitude towards AI-generated images, perceiving that AI helps to reduce work time, makes images appear more modern, and effectively captures attention. These findings suggest that artificial intelligence technology will continue to play an increasingly significant role in advertising and media creation. 3) Hypothesis testing further indicates that individuals who have received engineering, technology, and science education display more positive attitudes than those in other disciplines. Conversely, Generation Z respondents studying humanities and social sciences are less accepting of AI-generated product images than their peers in other fields. Therefore, technological literacy significantly influences the acceptance of AI technology in media production processes.

Keywords: media perception; advertising images; artificial intelligence; technology acceptance; generation Z

Introduction

Currently, artificial intelligence (AI) is widely used in various tasks or creative works by companies that develop AI with capabilities in both language and image generation, including still and moving images. Many scholars have studied the benefits and impacts of AI as it becomes more accepted and capable in various fields. Advances in AI technology positively affect aesthetics, such as enhancing creative photography, which can be further developed into industries like advertising. However, research has also pointed out the negative impacts of AI technology, including anxiety among artists or creators about being replaced by AI capabilities (Harsanto & Jakti, 2023).

Understanding the impact of AI in the post-truth era, in terms of its effects on creativity and the ownership of creative works, has shown that the rapid advancement of AI technology in the arts has significantly impacted the concepts and creativity of artists in the post-truth era. AI developed by GANs (Generative Adversarial Networks) has blurred the line between drawings and authentic images. AI technology can make images that look like imagination appear real or may even cause misunderstanding (Gülaçti & Kahraman, 2021). Moreover, studies have sought ways to utilize AI technology effectively, not as a replacement for human work but as a tool to enhance creative works. Studies have explored the capabilities of AI from different companies, showing their potential to be used efficiently and beneficially in photography and other related fields (Zhou, 2022). Additionally, there are studies on the collaboration between AI and humans in creating aesthetically pleasing art. AI is recognized as a tool to complement human creativity, requiring cooperation to strengthen the creative process of both sides (Mazzone & Elgammal, 2019; Yu, 2022).

However, the advancement of AI technology remains a debated issue, particularly concerning its usage limitations and acceptance among users. Many studies have applied the Technology Acceptance Model (TAM) by Davis (1989) in examining the acceptance of new technologies in various fields, such as testing the acceptance of mobile banking among the elderly (Arsabalan & Wetchprasith, 2023) and exploring consumer attitudes towards online shopping platforms (Pavlou, 2003). Therefore, as AI technology becomes increasingly influential in the

creative image industry for communication, it is essential to explore the attitudes of younger generations.

Based on the aforementioned research, the researcher has identified the potential for creating images with artificial intelligence (AI) as a medium for communication that can be applied across various disciplines. Additionally, limited research specifically studies advertising images created by AI. Therefore, this research focuses on the perception and acceptance of AI-generated media by recipients, specifically targeting Generation Z, who are likely to have opportunities to use and adopt AI technology widely in the future. The study aims to understand the attitudes of the younger generation toward AI technology in advertising photography and the trends in media reception by the younger generation in the future. The research results can be applied in the private sector, specifically in marketing and advertising, as well as among photographers. By applying AI technology, photographers can enhance their capabilities, reduce production costs, and better understand future target groups. Private companies in marketing and advertising can also apply the research results in the future.

Objective

1. To analyze the perception of advertising images generated by artificial intelligence.
2. To analyze opinions on the acceptance of AI-generated product images.
3. To investigate whether people in Generation Z from different demographic groups perceive AI-generated advertising images differently.

Literature Reviews

Theory of Perception and Interpretation of Media

Perception is the process by which the information receiver can explain and interpret the information they have received. McLeod et al. (2017) state that people's perceptions are often a result of exposure to media content. The messages shared and how they are delivered directly affect the thoughts, feelings, and attitudes. The study focuses on the success of communication in creating a societal impact regarding intellectual perception and response to the public message (Sadaf, 2011). Perception involves organizing, explaining, analyzing, and compiling information received through sensory processing, resulting in feelings and thoughts (Feldman, 1999). A study on the impact of perception regarding orthodontics in traditional media such as radio, television,

newspapers, magazines, email, and billboards in Virginia, USA, found that receivers with different income and educational levels had varying perceptions of orthodontic advertisements, recognizing the differences between various types of orthodontics. Moreover, the media persuasively affected the decision to use orthodontic services (Edwards et al., 2008). Media perception affects human understanding and behavior, depending on personal experiences and the socio–economic circumstances of each country (Mesch & Liu, 2023).

Therefore, perceiving, understanding, and interpreting media is a process in the reception of media by the audience. This involves engaging with media based on the audience's interests. The perception of meaning and its interpretation occur through the process of sensory data gathering, influenced by personal experience and the social, political, and economic context. This process affects memory retention and persuasion when selecting products and services.

In conclusion, the Theory of Perception and Interpretation of Media relates to the audience's opinions, attitudes, and choices. Recognizing the complexity of perception is essential for creating impactful communication strategies that resonate with diverse audiences and effectively address their needs and interests.

Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM) by Davis (1989) was developed to explain technology acceptance behaviors and measure technology usage's success. This model has been widely used to explain behavior regarding technology usage (McFarland & Hamilton, 2006, cited in Chaisamrong, 2018). The model suggests that technology usage behavior is influenced by the user's perception of ease of use (Perceived Ease of Use) and perceived usefulness (Perceived Usefulness). This model has demonstrated high accuracy and has been widely validated in studies showing that TAM effectively explains attitudes toward technology usage (Chau, 1996).

Arsabarn and Wetprasit (2023) examined the impact of technology acceptance factors and marketing communication on mobile banking usage behavior among the elderly. They found that perceived risk, perceived ease, perceived usefulness, and social influence affected technology acceptance behavior. This model has also been applied in various fields, such as information technology. Research has shown that TAM strongly predicts technology adoption in organizational environments, particularly in evaluating the acceptance of software systems, platforms, and digital tools (Gefen et al., 2003). In online learning, research on e–learning platforms often references TAM to assess user attitudes toward the convenience and perceived usefulness of platforms,

influencing adoption (Lee et al., 2005). TAM plays an essential role in understanding the acceptance of new medical technologies in healthcare.

Holden and Karsh (2010) used TAM to examine healthcare professionals' attitudes toward electronic health records (EHR), showing that perceived usefulness significantly influenced the willingness to adopt the system. In online business, research on online shopping behavior has also used TAM to study how website convenience and perceived usefulness affect customer satisfaction and purchasing decisions (Pavlou, 2003).

In conclusion, the Technology Acceptance Model (TAM), which is related to the attitudes and perceptions of the receiver toward technology, significantly affects the acceptance of technology in media.

Concept of Artificial Intelligence and Technological Revolution in Communication

The technological revolution and the advent of artificial intelligence (AI) have led companies to confront rapid changes. Simultaneously, organizations face new challenges that AI creates (Elliott, 2019). The AI revolution involves technical changes that replace and expand media production used for communication, along with changing processes that may shape the success and outcomes of new media production, resulting in increased challenges and new forms of competition in the future (Makridakis, 2017). However, considering AI technology's potential as a crucial factor in innovation, it is essential to consider safety, ethics, and copyright laws when using AI technology in media production (Robertson et al., 2022)

In conclusion, the Concept of Artificial Intelligence and Technological Revolution in Communication, the AI-driven technological revolution has transformed media production, introducing both opportunities for innovation and challenges for organizations. Balancing the benefits of AI with responsible implementation will be key to ensuring its sustainable and equitable integration into media production.

Impact of Artificial Intelligence on Advertising in New Media

AI technology has significantly impacted the creative and artistic fields in the post-truth era, particularly in creativity and production. The rapid advancement of AI has blurred the line between real and imaginary images, potentially leading to misunderstandings (Gülaçti & Kahraman, 2021). However, AI is not seen as a threat but as a potential tool for enhancing creative work, particularly in photography (Zhou, 2022).

Additionally, Mazzone and Elgammal (2019) have pointed out that collaboration between AI and humans can strengthen the creative abilities of both sides. AI's role in developing visual communication tools has expanded its application to various fields, including advertising, art, fashion, journalism, and therapy (Tan, 2022). In the advertising industry, AI has notably increased promotional efficiency and consumer identification (Shi & Wang, 2023).

Most research has focused on using AI to enhance efficiency in various fields, such as viewing.

AI as a tool to complement skills and improve work efficiency. However, there is a research gap in comparing consumer perceptions of images created by AI versus humans regarding their impact on recipients. This issue deserves further study to understand the impact of AI on consumer perception and response in the digital age.

In conclusion, the impact of artificial intelligence on advertising in new media has significantly impacted the industry. AI technology has become a transformative force in creative and artistic fields, enhancing production and collaboration while expanding its applications across various industries. However, despite its potential to complement human creativity and improve efficiency, a significant research gap exists in understanding consumer perceptions of AI-generated versus human-created content. Addressing this gap is crucial to fully comprehend the implications of AI in visual communication and its influence on audiences in the digital age.

Media Production Processes in the Age of Artificial Intelligence

AI technology has revolutionized media production processes, increasing efficiency and transitioning work into a more digital format (Qin & Jiang, 2019). AI technology enables producers to create a wider variety of ads in greater volume, with enhanced management and technical customization (Campbell et al., 2021). Additionally, AI assists in managing images, sound, and human physical characteristics with precision (Campbell et al., 2022). AI technology represents an innovation in advertising production, aiding in creativity, design, and managing large amounts of data, especially for social media (El-aasy, 2023). However, most studies lack an analysis of the impact of AI-produced advertisements on consumers, particularly regarding attitudes, satisfaction, and purchasing behavior, which warrants further study.

In conclusion, the media production processes in the age of artificial intelligence have significantly transformed advertising production by enhancing efficiency, creativity, and customization. However, a critical gap remains in understanding its effects on consumer responses.

Generational Differences in Media Reception

Media perception differs across generations and is influenced by preferences, usage habits, and acceptance of differences (Kagan & Lissitsa, (2023). Younger generations prefer social media that emphasizes sharing images and videos (Rahmat et al., 2023), while older generations face challenges in using new media (Rožukalne, 2020). Social media influence Generation Z on topics like feminism (Kosar et al., 2023), the environment (Sun & Xing, 2022), and personal data sharing (Lyngdoh et al., 2023). They are more likely to consume mobile phones and app media (Saulīte et al., 2022). Technological proficiency differs across generations, with Baby Boomers and Generation X having fewer skills than Millennials and Generation Z (Waitayasin & Techapongsathon, 2022). Generation Z stands out in technological capability and online social media expression (Stahl & Literat, 2023).

In conclusion, generational differences in media perception and usage highlight the varying levels of technological proficiency, media preferences, and social engagement across age groups. While younger generations, particularly Generation Z, excel in technological adoption and online expression, older generations face more challenges adapting to new media. These distinctions underscore the importance of tailoring media content and platforms to meet each generation's unique needs and behaviors while addressing the digital divide to foster inclusivity and equal access to media technologies.

Related Research

A literature review related to media perception and the impact of AI on advertising reveals the importance of photography and technology in modern marketing communication. Cuesta-Valiño et al. (2023) studied the effects of beauty and digital photography composition on hotel booking decisions, finding that factors such as lighting, colors, human involvement, and camera angles significantly influenced consumer perception and booking behavior. This highlights the importance of photography design in digital marketing communication. Meanwhile, Harsanto and Jakti (2023) studied the impact of AI on product advertising photography. Their findings indicate that AI technology enhances image creation efficiency and positively correlates with the advertising industry. However, the study also cautions about potential negative impacts in social, political, economic, and cultural aspects, which should be considered carefully.

Furthermore, Koktong and Promrat (2023) researched the creation of photographs based on the myth of female beauty for advertising, showing that artistic photography reflecting beauty

myths effectively enhances SMEs' brand image. This reflects the influence of using images and social concepts in marketing communication.

However, the literature review reveals significant research gaps, particularly regarding consumer perception and acceptance of AI in advertising production for various products and services. It also analyzes demographic differences within Generation Z in their perception and use of AI-generated media. These issues represent important opportunities for future research to gain a comprehensive and deeper understanding of AI's role and impact in marketing communication and the creation of advertising media, which will benefit academics and practitioners in developing effective communication strategies in the digital age. This research used the demographic of Generation Z as independent variables and the concept of media perception and media acceptance as dependent variables.

Conceptual Framework

This research is quantitative, and the theoretical framework of research was determined by following the technology acceptance model (Davis, 1989) and media perception theory McLeod et al. (2017), including the demographic of Generation Z toward an attitude of image generated by artificial intelligence.

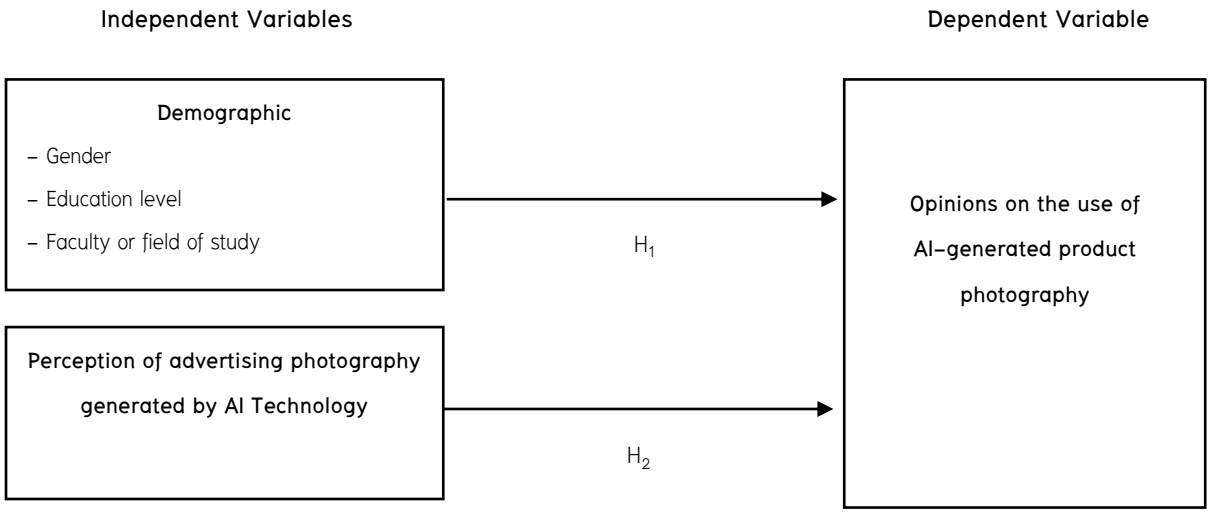


Figure 1 Research Theoretical framework

Variables and Hypothesis in the Research

Research Hypothesis 1: Generation Z individuals with different demographic characteristics will have different perceptions of advertising photography that uses AI technology. The independent variable is the field of study, and the dependent variable is the perception of advertising photography that uses AI technology.

Research Hypothesis 2: Generation Z individuals with different demographic characteristics will have different acceptance levels of product photography created by AI technology. The independent variable is the field of study, and the dependent variable is the opinion on using product photography created by AI technology.

Research Methodology

The overview of the research approach

This research studies the perception and acceptance of product photography for advertising created by artificial intelligence (AI). It is a quantitative research study using a survey research design. Data was collected from a population in Bangkok, and a questionnaire was used as the data collection tool. The respondents completed the questionnaire themselves, and the data collection was done at a single time (Cross-sectional Study). This research was approved by the Human Research Ethics Committee of Srinakharinwirot University (Protocol code: SWUEC-672395)

Population and sample

The population for this research was Generation Z in Bangkok, with an exact population size unknown. Cochran's formula is considered especially appropriate in situations with large populations (Cochran, 1977).

Therefore, the confidence level was 95%, and the margin of error was 5% or 0.05. By using W.G. Cochran's formula, the sample size of the Generation Z population in Bangkok will be $((1.96)^2 (0.5) (0.5)) / (0.05)^2 = 385$ participants. As a result, the researcher's sample size set this study's sample size at 400 participants.

The Research instrument

The research instrument was a questionnaire, which the researcher designed based on a literature review, aligning with relevant concepts and theories to cover the research topics as comprehensively as possible. The questionnaire was structured with closed-ended questions, used a 5-point rating scale, and divided into three sections as follows:

Section 1: Questions on demographic data, including gender, education level, and field of study. Total three questions.

Section 2: Questions regarding the perception of advertising photography that uses AI technology. Total 10 questions.

Section 3: Questions about opinions on using product photography created by AI technology. Total six questions.

Validity and reliability

The questionnaire has been reviewed by experts at least three experts to check the content validity and language used by finding the consistency between the questions and the objectives of the content to find the IOC (Index of Item Objective Congruence) value, with the criterion that the IOC value must be greater than or equal to 0.5 to be included as questions in the questionnaire. Use the questionnaire reviewed by experts to check the content validity and the language used. Determine the consistency between the questions and content objectives to find the value of IOC (Index of Item Objective Congruence). The criteria for considering the IOC value is that it should be greater than or equal to 0.5 to be included as questions in the questionnaire.

The questionnaire has been tested for reliability. According to Cronbach's Alpha coefficient criteria, the researcher obtained an alpha coefficient of 0.917 for the total questionnaire. Therefore, this questionnaire is reliable and can be deemed complete (Cronbach's Alpha value greater than 0.7). The revised questionnaire was then used to collect data from the sample group.

Data collection

This research used non–probability sampling, specifically purposive sampling. The researcher created an online questionnaire using Google Forms. After completing the questionnaire, the researcher distributed it through various online networks, with 400 sets distributed. Before collecting data, the researcher screened respondents by asking questions such as age (Generation Z) and living area to select respondents who met the study's objectives and to ensure a wide distribution of the sample group.

Data analysis

In this research, the researcher used data analysis methods to test the relationships between variables by applying both descriptive statistics and inferential statistics as follows:

Descriptive Statistics: The researcher used frequency distribution tables, percentages, and means.

Inferential Statistics: These were used to test the research hypotheses and generalize the results to the study's population. The significance level was set at 0.05. One-way ANOVA (Analysis of Variance). If differences were found, pairwise comparisons were made using the Least Significant Difference (LSD) method.

Research Result

Objective 1: To analyze the perception of advertising images generated by artificial intelligence, found that most of the Generation Z sample group in Bangkok were female, accounting for 53.8%. Most were single, at 96.8%. The majority were studying or had completed a bachelor's degree (90.5%), followed by 7.5% who had completed an education level below a bachelor's degree, 1.3% who had completed a master's degree, and 0.8% who had completed a doctoral degree.

Most of the sample group were studying or had graduated from faculties related to mass communication technology, multimedia, communication arts, or social communication innovation, accounting for 38.3%. This was followed by 28.8% who had studied or were studying in faculties related to business administration, management, or marketing. Next, 11% were studying or had graduated from faculties related to agricultural technology and natural resources, followed by 7.3% from faculties related to architecture. Furthermore, 6.3% were from humanities and social sciences faculties, and 5.5% were from faculties related to science and technology.

Among Generation Z individuals aged between 19 and 27, 60% of the sample population could perceive and differentiate between product photography generated by AI technology and photography created by humans, which was at a moderate level of media perception.

Table 1 Opinions on the use of product photography generated by AI technology.

Issue	Opinions					Total	Arithmetic Mean	S.D.	Meaning	Rank
	Least	Little	Moderate	Much	Most					
Product photography generated by AI technology is a good and creative idea.	6 (1.5)	22 (5.5)	88 (22.0)	166 (41.5)	118 (29.5)	400 (100.0)	3.9 2	.930	Much	4
2. Product photography generated by AI technology plays a key role in purchasing decisions or service usage.	4 (1.0)	27 (6.8)	92 (23.0)	164 (41.0)	113 (28.3)	400 (100.0)	3.89	.928	Much	6
3. Product photography generated by AI technology attracts attention.	7 (1.8)	23 (5.8)	83 (20.8)	158 (39.5)	129 (32.3)	400 (100.0)	3.95	.958	Much	3
4. AI technology is a modern method to generate product photography.	5 (1.3)	9 (2.3)	78 (19.5)	147 (36.8)	161 (40.3)	400 (100.0)	4.13	.887	Much	1
5. Product photography generated by AI technology makes purchasing and service more interesting.	11 (2.8)	25 (6.3)	22 (20.5)	159 (39.8)	123 (30.8)	400 (100.0)	3.90	1.001	Much	5
6. Product photography generated by AI technology helps convey the meaning of products and services to meet needs better	13 (3.3)	27 (6.8)	91 (22.8)	150 (37.5)	119 (29.8)	400 (100.0)	3.82	1.031	Much	7
7. AI technology helps reduce the working time of creative advertisers	7 (1.8)	6 (1.5)	78 (19.5)	167 (41.8)	142 (35.5)	400 (100.0)	4.08	.874	Much	2
8. Product photography generated by AI technology has the same artistic value as product photography not created by AI	27 (6.8)	37 (9.3)	86 (21.5)	146 (36.5)	104 (26.0)	400 (100.0)	3.66	1.157	Much	8
Total							**3.92**	**.817**	**Much**	

On average, the sample group had a high level of agreement regarding using AI-generated product photography (3.92). The top three points with which the sample group most strongly agreed were: the use of AI-generated product photography is a modern method (4.13), followed by a strong agreement that AI-generated product photography helps reduce the working

time of creative advertisers (4.08), and lastly, there was strong agreement that AI-generated product photography can attract attention (3.95), respectively.

Objective 2: To analyze opinions on the acceptance of AI-generated product images, found that the opinion of the population in Generation Z has the most acceptance of product photography generated by AI in the type of electrical appliances and electronics advertising. On the other hand, there was the lowest level of acceptance of the type of food advertising generated by AI.

Table 2 Opinions on the acceptance of types of product photography generated by AI technology.

Issue	Opinions					Total	Arithmetic Mean	S.D.	Meaning	Rank
	Least	Little	Moderate	Much	Most					
1. Food advertising	20	34	94	141	111	400	3.72	1.108	Much	6
	(5.0)	(8.5)	(23.5)	(35.3)	(27.8)	(100.0)				
2. Cosmetic advertising	16	24	100	153	107	400	3.78	1.035	Much	3
	(4.0)	(6.0)	(25.0)	(38.3)	(26.8)	(100.0)				
3. Fast-moving consumer	17	25	102	151	105	400	3.76	1.045	Much	4
Goods (FMCG) advertising	(4.3)	(6.3)	(25.5)	(37.8)	(26.3)	(100.0)				
4. Durable goods	13	24	96	156	111	400	3.82	1.010	Much	2
advertising	(3.3)	(6.0)	(24.0)	(39.0)	(27.8)	(100.0)				
5. Service advertising	23	24	97	142	114	400	3.75	1.007	Much	5
	(5.3)	(6.0)	(24.3)	(35.5)	(28.5)	(100.0)				
6. Electrical appliances	15	17	104	151	113	400	3.83	1.011	Much	1
and electronics advertising	(3.8)	(4.3)	(26.0)	(37.8)	(28.3)	(100.0)				
Total							**3.78**	**.953**	**Much**	

From Table 2, the sample group, on average, had a high acceptance of the types of product photography created by AI technology (3.78). The top three areas with the highest agreement were acceptance of AI-generated product photography in advertising for electrical appliances and electronics, such as washing machines, irons, and mobile phones (3.83), followed by strong agreement in accepting AI-generated product photography in durable goods advertising, such as cars and condos (3.82), and lastly, acceptance of AI-generated product photography in cosmetic advertising (3.78), respectively.

Research Hypothesis 1: Generation Z individuals with different demographic characteristics will have different perceptions of advertising photography that uses AI technology. The independent variable is the field of study, and the dependent variable is the perception of advertising photography that uses AI technology.

Table 3 Analysis of Variance of the Perception of Advertising Photography Using AI Technology, Categorized by Faculty of Study.

Faculty	Number	Mean	S.D.	F	Sig.
Mass Communication Technology, Multimedia, Communication Arts, Social Communication Innovation	153	1.78	.512	1.301	.256
Agricultural Technology and Natural Resources	44	1.91	.603		
Business Administration, Management, Marketing	115	1.68	.488		
Science and Technology	12	1.75	.622		
Engineering	25	1.76	.436		
Humanities and Social Sciences	22	1.86	.468		

From Table 3, it can be concluded that H_0 is accepted, meaning that students from different faculties do not have significantly different perceptions of advertising photography that uses AI technology at the significance level of 0.05 (Sig. > 0.05).

Research Hypothesis 2: Generation Z individuals with different demographic characteristics will have different levels of acceptance regarding the use of product photography generated by AI technology. The independent variable is the field of study, and the dependent variable is the opinion on using AI-generated product photography.

Table 4 Analysis of Variance of Acceptance of AI-Generated Product Photography, Categorized by Faculty of Study.

Faculty	Number	Mean	S.D.	F	Sig.
Mass Communication Technology, Multimedia, Communication Arts, Social Communication Innovation	153	3.68	.980	4.081	.001
Agricultural Technology and Natural Resources	44	3.72	.811		
Business Administration, Management, Marketing	115	3.99	.838		
Science and Technology	12	4.21	.729		
Engineering	25	4.07	1.122		
Humanities and Social Sciences	22	3.19	1.138		
Architecture	29	3.49	.917		

From Table 4, it can be concluded that H_0 is rejected, meaning that students from different faculties have different levels of acceptance of AI-generated product photography at the significance level of 0.05 (Sig. < 0.05).

Table 5 Comparison of Faculty's Differences in Acceptance of AI-Generated Product Photography.

	Faculty Comparison	Mean Difference	Sig.
Mass Communication Technology, Multimedia, Communication Arts, Social Innovation	Agriculture Technology and Natural Resources	-.032	.842
	Business Administration, Management, Marketing	-.310*	.007
	Science and Technology	-.524	.061
	Engineering	-.383	.058
	Humanities and Social Sciences	.495*	.020
	Architecture	.196	.301
Agriculture Technology and Natural Resources	Mass Communication Technology, Multimedia, Communication Arts, Social Innovation	.032	.842
	Business Administration, Management, Marketing	-.278	.093
	Science and Technology	-.492	.105
	Engineering	-.351	.134
	Humanities and Social Sciences	.527*	.031
	Architecture	.227	.308
Business Administration, Management, Marketing	Mass Communication Technology, Multimedia, Communication Arts, Social Innovation	.310*	.007
	Agriculture Technology and Natural Resources	.278	.093
	Science and Technology	-.214	.449
	Engineering	-.072	.725
	Humanities and Social Sciences	.805*	.000
	Architecture	.506*	.009
Science and Technology	Mass Communication Technology, Multimedia, Communication Arts, Social Innovation	.524	.061
	Agriculture Technology and Natural Resources	.492	.105
	Business Administration, Management, Marketing	.214	.449
	Engineering	.142	.665
	Humanities and Social Sciences	1.019*	.002
	Architecture	.720*	.025
Engineering	Mass Communication Technology, Multimedia, Communication Arts, Social Innovation	.383	.058
	Agriculture Technology and Natural Resources	.351	.134
	Business Administration, Management, Marketing	.072	.725
	Science and Technology	-.142	.665
	Humanities and Social Sciences	.877*	.001
	Architecture	.578*	.024
Humanities and Social Sciences	Mass Communication Technology, Multimedia, Communication Arts, Social Innovation	-.495*	.020
	Agriculture Technology and Natural Resources	-.527*	.031
	Business Administration, Management, Marketing	-.805*	.000
	Science and Technology	-1.019*	.002
	Engineering	-.877*	.001
	Architecture	-.299	.257
Architecture	Mass Communication Technology, Multimedia, Communication Arts, Social Innovation	-.196	.301
	Agriculture Technology and Natural Resources	-.227	.308
	Business Administration, Management, Marketing	-.506*	.009
	Science and Technology	-.720*	.025
	Engineering	-.578*	.024
	Humanities and Social Sciences	.299	.257

*Significant at the .05 level.

As a result of Table 5, The comparison of the differences in acceptance of AI-generated product photography categorized by faculty of study, it was found that students in the Humanities and Social Sciences faculties had lower acceptance of AI-generated product photography than all other faculties, except for those in the Faculty of Architecture. Meanwhile, students in the Faculty of Architecture had lower acceptance of AI-generated product photography than those in the Business Administration, Management, Marketing, Science and Technology, and Engineering faculties, with a significance level of 0.05 (Sig. < 0.05).

Discussion

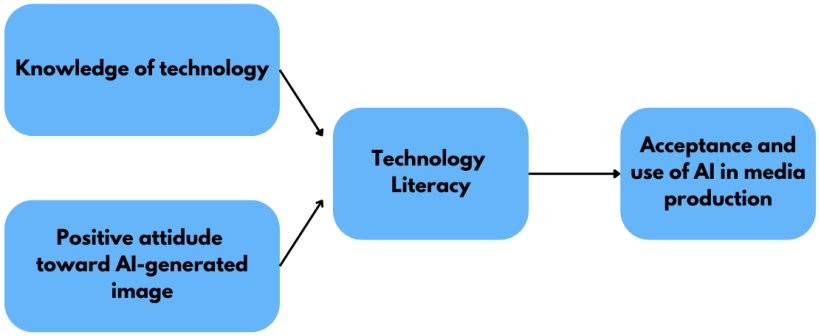
Results from the first research objective found that 60% of the sample population of Generation Z, aged between 19 – 27 years, could distinguish between product images created by AI technology and those created by humans at a moderate level of media perception. The top three areas of agreement were: AI-generated product photography is a modern method (4.13), AI-generated product photography helps reduce the working time of creative advertisers (4.08), and AI-generated product photography can attract attention (3.95) respectively. This was because of the efficiency of advanced artificial intelligence technology. The results of this study align with those of previous research that AI technology is a tool that helps improve creative work (Zhou, 2022) and also Qin and Jiang (2019), who noted that AI technology contributes to new forms of advertising production, catering to consumer needs in terms of advertising consumption and purchase decisions.

When categorized by product type, the study found that the sample group accepted AI-generated product photography in the following top three categories: advertising for electrical appliances and electronics, such as washing machines, irons, and mobile phones (3.83); advertising for durable goods, such as cars and condos (3.82); and advertising for cosmetics (3.78). The media reception of consumers in this study reflects the convenience of using AI technology across various sectors. This is consistent with the findings of Harsanto and Jakti (2023), who studied the impact of AI on product advertising photography. Their research showed that AI technology can enhance image creation efficiency and has a positive correlation with the advertising industry.

Results from the second research objective found that differences in media perception by education level revealed that Generation Z individuals, regardless of their field of study, had similar perceptions of AI-generated advertising photography. This suggests that Generation Z, across various academic fields, understands and perceives media similarly created by AI technology. This was because of Generation Z's increasing media and technological literacy. The results of this study align with those of previous research that Generation Z is proficient in adapting to and learning new technologies (Stahl & Literat, 2023)

Results from the third research objective found that students from different faculties have different acceptance levels of AI-generated product photography at the significance level of 0.05 (Sig. < 0.05). Generation Z, who have received engineering, technology, and science education, display more positive acceptance than those in other disciplines. Meanwhile, students in the Humanities and Social Sciences faculties showed lower acceptance of AI-generated product photography than those in all other faculties. This was because of the technological literacy base on the field of study significantly influences the acceptance of AI technology. Emphasizing the growing acceptance of AI in media and advertising. Those in technological and scientific fields showed more positive attitudes towards AI-generated photography than those in communication arts, humanities, and social sciences. The Technology Acceptance Model (TAM) by Davis (1989) supports this finding, stating that technology usage behavior is influenced by perceived ease of use and usefulness. The results of this study align with those of previous research that media perception affects human understanding and behavior, depending on personal experiences and the socio-economic circumstances of each country (Mesch & Liu, 2023). Therefore, technological knowledge impacts the adoption of AI in media production. Generation Z, known for its adaptability to new technologies (Stahl & Literat, 2023), has shown positive attitudes toward AI-generated imagery, indicating that AI will continue to play an increasing role in advertising and media creation.

New Knowledge from Research



The factors that influence Generation Z's acceptance and use of AI in advertising media production are technology literacy, including knowledge of technology and a positive attitude toward AI–generated images.

Conclusion

Generation Z respondents had similar perceptions of AI–generated product photography, suggesting that the overall understanding and perception of AI technology are consistent across fields of study. In addition, knowledge of AI and technology directly impacted their acceptance and use of AI in media production. Generation Z's positive attitudes toward AI–generated images indicate that AI will play an increasing role in advertising and media creation in the future. These results highlight the growing acceptance of AI technology in creative industries, particularly among younger generations, and provide valuable insights for industries looking to integrate AI into advertising and media production.

Suggestions

From the research results. The researcher has recommendations as follows:

1. Suggestions for practical implications.

Results from the first research objective found that 60% of the sample population could perceive and differentiate between product photography generated by AI technology and photography created by humans, which was at a moderate level of media perception. On average, the sample group had a high level of agreement regarding using AI–generated product photography (3.92). Therefore, relevant agencies or stakeholders should use AI technology in the still image advertising production industry to reduce production costs and assist humans in

producing advertising images, as younger generations have shown acceptance and understanding of the outcomes of AI technology.

Results from the second research objective found that Generation Z students from different faculties do not have significantly different perceptions of advertising photography that uses AI technology at the significance level of 0.05. Therefore, relevant agencies or stakeholders should proceed, as companies that hire students can more effectively promote the skills of using artificial intelligence in the workplace, as this group of people has awareness and understanding of the outcomes produced by artificial intelligence, regardless of their field of study.

Results from the third research objective found that students from different faculties have different levels of acceptance of AI-generated product photography at the significance level of 0.05; Generation Z, who have received education in engineering, technology, and science, display more positive acceptance than those in other disciplines. Meanwhile, students in the Humanities and Social Sciences faculties showed lower acceptance of AI-generated product photography than those in all other faculties. Therefore, relevant agencies or stakeholders should proceed as follows: Promoting young people to become digital citizens requires learning about technology and its application in daily life to foster the acceptance of future technological advancements. Thus, technological literacy significantly influences the acceptance of AI technology in media production processes.

2. Suggestions for future research directions.

This research has found that technological literacy is important for accepting AI technology in media production processes by focusing on the workflow of media production suitable for utilizing AI. Further research should be done on issues related to the impact of AI on the perception and interpretation of media across diverse consumer groups, effects on consumer perception and interpretation across varied backgrounds and cultures, the ethical and social impacts of AI in media, and the impact of AI on creativity in media production.

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