

CONDITIONS FOR THE ACCEPTANCE OF ADVERTISING CONTENT GENERATED BY GENERATIVE ARTIFICIAL INTELLIGENCE

Łukasz Sułkowski
Institute of Public Affairs,
Jagiellonian University in Cracow
Poland
0000-0002-1248-2743

Dominika Kaczorowska-Spychalska
Department of Marketing, Faculty of
Management, University of Lodz
Poland
0000-0002-2566-0297

The dynamic development of GenAI tools and their growing availability suggest that this technology will play an increasingly important role in marketing, particularly in advertising. It redefines not only the way advertising materials are created, but also their visual, linguistic and narrative form, which is important for how they are perceived, evaluated and accepted by consumers. Furthermore, despite its numerous benefits, it is associated with a number of challenges that may be of significant importance to consumers. This article aims to identify the factors that determine the level of social acceptance of advertising materials generated using GenAI tools. The research process utilised the meta-UTAUT model, expanded with additional variables: hedonistic motivation, trust and habit, which in the context of advertising materials may play a significant role in the process of forming attitudes and behavioural intentions towards the use of generative AI. The results obtained are important both in the context of further research on the acceptance of this technology and the effects of its work, including in the advertising sector, as well as for practitioners operating in this market.

Keywords: *generative artificial intelligence (GenAI), advertising materials, acceptance, consumer*



INTRODUCTION

Digital technologies, especially general purpose technologies, are changing consumer behaviour, expectations and attitudes. The future of marketing will undoubtedly be linked to artificial intelligence (AI), especially generative AI (GenAI), which will allow brands to respond to these changes in real time. The use of GenAI brings measurable benefits (e.g., increased effectiveness of actions taken, unlimited possibilities for creating engaging content, product arrangement in any style, reduced costs) and is one of the fastest-growing trends in marketing (Nguyen et al., 2021; Huderek-Glapska, 2023). Digital technologies are also reshaping consumer emotions and purchasing decisions in digital environments (Biercewicz et al., 2024; Victor et al., 2023).

Generative artificial intelligence (GenAI) is an advanced technology that, based on huge data sets, can almost instantly generate new texts, images, audio recordings, programming codes and synthetic data (Bommasani et al., 2021), with a quality and style similar to the work of humans. Its ability to imitate human creativity and expression opens up completely new possibilities for creative sectors, including the advertising industry. Unlike earlier digital technologies, which mainly supported data analysis, process automation and message personalisation, generative AI enters directly into the realm of creation. It enables the creation of unique concepts, visualisations and narratives on a scale previously unavailable, while reducing costs and production time. As a result, it significantly enhances the creative and strategic potential of marketing teams, allowing them to test different communication variants more quickly, tailor messages to micro-segments of audiences and optimise campaign effectiveness in real time.

There are already many generative artificial intelligence tools available on the market, covering various types of media and forms of creativity. Text tools include ChatGPT, Gemini, Claude, Perplexity and Copilot, which can be used to generate advertising content, advertising spot scripts and promotional slogans, including for social media. In the field of graphics, tools such as Midjourney, DALL-E, Stable Diffusion, NanoBana and Leonardo AI dominate, allowing the creation of illustrations, advertising photos, graphic concepts and broadly understood promotional materials in styles tailored to the expectations of the audience. Video generation tools such as Runway AI and Sora are also gaining popularity, allowing the creation of advertising spots, animations and video content without the need for actors or production crews. In turn, tools such as Suno, Udio and Soundful allow you to generate any soundtrack, from simple jingles to complex musical compositions, which can be tailored to the content of the advertising message, the emotions of the audience and the visual context.

The dynamic development of generative artificial intelligence tools means that they not only offer increasingly high quality and realistic content, but also enable the creation of more immersive and interactive user experiences. As a result, marketing communication is becoming more engaging, based on the emotional reception of the message and a deeper connection with the consumer. From the perspective of the advertising industry, this means that GenAI opens up enormous opportunities both in terms of the creativity of the content created and the effectiveness and efficiency of the campaigns based on it. In addition, it allows for partial or full automation of routine tasks, which increases the speed and efficiency of marketing teams (DeCremer et al., 2023). What is more, GenAI allows for the streamlining of processes, including the creation of advertising concepts and their actual creation (Cillo & Rubera, 2025),

while increasing their level of personalisation. Generating advertisements using generative artificial intelligence tools is fast and produces reliable results thanks to the interaction between humans and technology, whereas previously, obtaining reliable images, for example, required knowledge of digital design and editing (Campbell et al., 2022). As a result, generative artificial intelligence not only redefines the way advertising materials are created, but also transforms the very model of work, shifting the emphasis to the area of human-technology interaction and synergy.

However, despite its many benefits, the growing availability and power of GenAI tools brings new challenges. These include hallucinations, such as references to fictional sources (Haluza & Jungwirth, 2023), content containing conceptual errors, and content that could be used unethically or deliberately with malicious intent (Weng et al., 2023). In particular, there is a risk of manipulating the emotions of recipients or violating their consumer rights and privacy. Inept use of GenAI tools in advertising can also lead to the perpetuation of cultural biases (Abdelhalim et al., 2024), intellectual property issues, and questions about human autonomy (Zohny et al., 2023). Such actions may undermine the credibility of advertising messages and weaken trust in the materials developed in this way and the brands they concern. Moreover, given the dynamic development of GenAI and consumers' limited knowledge, their awareness of the possibilities of using generative artificial intelligence in the process of, for example, creating advertising materials is relatively shallow and limited. This is because AI is a discreet technology, which means that consumers are generally unaware that they have interacted with this technology (Kumar et al., 2019) and are unable to distinguish between advertising materials created using generative AI tools and those created in the traditional way.

The way consumers perceive GenAI is undoubtedly a result of both the opportunities offered by this technology, including in advertising, and the risks it entails (Bozkurt & Gursoy, 2025; Chikosha & Potwana, 2021). The acceptance of artificial intelligence, as well as the level of its conscious use, therefore reflects consumer attitudes towards this technology. This is important for both declared and actual interactions with this technology and the resulting behaviours (e.g., reactions to AI-generated content or purchasing decisions made on this basis) (Venketesch, 2000; Venkatesh & Davis, 2000). Consumer demographics such as age, gender, level of education, and subjective assessment of one's financial situation play a key role in this process (Kaya et al., 2022; Zhan et al., 2023), but also psychographic factors, including technological sophistication and interest in science fiction pop culture (Hick & Ziefle, 2022).

It is crucial to determine the level of consumer acceptance of advertising materials created using generative artificial intelligence tools and to identify the factors that shape trust in this content. On the one hand, this contributes to a better understanding of how society perceives and accepts AI and its specific applications, and on the other hand, it supports the process of its implementation in the context of practical market applications. The aim of this article is to identify the factors determining the level of social acceptance of advertising materials generated using generative artificial intelligence tools. To achieve this goal, the authors posed the following research questions (RQ):

RQ1. What factors determine consumer attitudes towards marketing materials generated using GenAI tools?

RQ2. Are consumers willing to trust advertising materials created using generative AI tools?

RQ3. How do consumer demographics and selected behavioural characteristics influence the level of acceptance of advertising materials generated using GenAI tools?

To answer our research questions, we used the meta-UTAUT model, which includes four basic exogenous variables (*Performance Expectancy*, *Effort Expectancy*, *Social Influence*, *Facilitating Conditions*) and two endogenous variables (*Attitude*, *Behavioural Intention*) from the original UTAUT model (Dwivedi et al., 2000). For the purposes of the study, the model was expanded to include trust, consumer habits and hedonistic motivation, which are considered by many authors to be important variables in the context of the acceptance of digital technologies, including AI.

The research conducted may contribute to a better understanding of how consumers perceive generative AI and its specific applications in advertising, as well as what influences their level of acceptance. This is also important for the process of implementing this technology in the context of practical market applications in marketing departments, including advertising, as well as media houses and advertising agencies. The growing importance of digital commerce environments also shapes consumer expectations and behaviors (Oláh et al., 2023).

LITERATURE REVIEW

The use of generative artificial intelligence in advertising

Artificial intelligence (AI) is currently recognised as one of the key technologies with a significant impact on various industries and sectors of the economy. Defined by John McCarthy as ‘the science and engineering of making intelligent machines, especially intelligent computer programmes, involves using computers to understand human intelligence’ (McCarthy, 2007), embedded in a machine, enables learning based on hundreds of experiences (Davenport et al., 2020) and mimics elements of human intelligence and behaviour (e.g. perception, reasoning, learning or decision-making) (Syam&Sharma, 2018). This gives the impression that AI can think, analyse, react and act in a manner similar to humans (Kumar et al., 2019; Davenport et al., 2020).

The foundation of its operation is the effective analysis of huge databases, processing them into knowledge that is then used to create behaviours based on it (Jarrahi, 2018). Traditional artificial intelligence focuses on the intelligent execution of specific tasks and refers to systems designed to respond to a specific set of input data, while generative AI (GenAI) represents a qualitatively new stage in the development of this technology. It is a form of AI that can create something seemingly new, such as text, images, music, and even code in the programming process. What distinguishes it from ‘traditional’ AI systems is primarily its unlimited context and scale of potential use, as well as its unlimited possibilities for democratisation (Helberger & Diakopoulos, 2023). Generative artificial intelligence can therefore be defined as an artificial intelligence (AI) system that uses large data sets to create content that did not previously exist (Chiu, 2024), and is therefore innovative and creative in a certain way (Mannuru et al., 2023). This means that it is increasingly being compared to human artistic expression and creativity (Anantrasirichai & Bull, 2022). Based on large language models (LLM), it allows users to interact in a conversational mode, similar to a dialogue between humans. Trained on large data sets, it can generate coherent, logical and highly realistic content (Sætra, 2023), but its final

form depends on the training data and the way humans interact with GenAI (Brown et al., 2024).

Generative AI technology is crucial to the content creation process. It allows for increased relevance through the selection of appropriate language, tone and style, and in the case of image generators, through visualisation tailored to the emotional and aesthetic context. What is more, GenAI has the unique ability not only to analyse data and provide typical responses based on it, but also to generate more complex content that goes beyond typical human-machine interactions (Liam et al., 2022), simulate alternative scenarios, and even deepen human creative processes (Dwivedi et al., 2023).

It is therefore not surprising that there is growing interest in this technology in the creative sector, including advertising. Marketing agencies are increasingly experimenting with AI-generated content, which, according to experts, may soon prove to be more effective than content prepared exclusively by humans (without the support of GenAI tools). The scope of such cooperation may be based on complementarity, interdependence, competition, but also full cooperation (Sowa et al., 2021). In this context, research indicates that ‘co-creation’ with generative systems can lead to significantly higher efficiency if users begin to perceive GenAI not as a neutral, passive tool, but as an individualised cognitive partner with whom they can engage in dialogue, exchange ideas and jointly develop concepts (Sebastian et al., 2025; Lyu et al. 2024).

Benefits and limitations of using generative artificial intelligence in advertising

GenAI has potential that could prove very useful for the advertising industry, particularly in the area of ad creation (Cillo & Rubera, 2025). The main advantage of this technology is its ability to process vast amounts of data, identify patterns and generate results that would be difficult for humans to obtain manually (Y. Liu et al., 2023). According to research by the World Federation of Advertisers, generative artificial intelligence is currently most commonly used in the areas of content creation (79%), content ideation (67%) and task automation (54%) (<https://wfanet.org/knowledge/item/2024/09/17/eighty-percent-of-brands-have-concerns-about-agency-use-of-genai>). It can therefore streamline entire processes or individual phases thereof, as well as assist people in performing their existing tasks, increasing the speed and efficiency of their work (DeCremer et al., 2023), including those related to customer service. It is useful in consumer behaviour analysis processes (Tang et al., 2024; Ford et al., 2023), media planning and purchasing, the development of increasingly personalised and responsive advertising campaigns (Qin&Jiang, 2019), the evaluation of their effectiveness, and the evaluation of specific advertising materials. It can not only speed up the process of creating advertisements, but also support dynamic experimentation with their form, style and how they reach the audience. The potential of this technology to quickly test, modify and improve individual elements of an advertising campaign creates space for data-driven creativity, especially in terms of Experimental studies have shown the potential of digital environments for testing advertising message effectiveness (Borawska et al., 2023).maximising consumer engagement and influencing their decisions. However, it seems that the advertising industry is still not fully exploiting the potential of generative AI in the creation and development of creative concepts (Demsar et al., 2025).

Perhaps this is due to the fact that generative AI entails significant social, cultural and ethical risks. This applies, among other things, to the issue of human autonomy – that of the marketer (Zohny et al., 2023). On the one hand, AI is becoming a tool that supports human decisions, but on the other hand, it is increasingly beginning to shape them, which may lead to a gradual change in the role of humans from creators to participants in a process shaped by algorithms. Another challenge for marketers is undoubtedly GenAI's tendency to hallucinate, i.e. to present credible-sounding content that is in fact untrue, including photos, graphics, videos or information containing factual errors (Dwivedi et al., 2023; Alkaissi&McFarlane, 2023). GenAI can also contribute to the perpetuation of stereotypes and cultural biases (Abdelhalim et al., 2024) or the reproduction of harmful or inappropriate content (e.g., violence, use of offensive language), which can have a negative impact on the reputation of brands using such tools. Models trained on historical or biased data often unconsciously reproduce patterns present in culture or the media. Furthermore, in the case of people who have difficulty using generative AI tools (e.g., children, the elderly, people who are less tech-savvy or have limited access to advanced digital tools), it will be much easier to manipulate their decisions through appropriately generated, unethical or deliberately misleading advertising messages. Another key issue is data security and confidentiality (Nah et al., 2023; Osadchaya et al., 2024). The use of personal or company data to train models carries the risk of unauthorised disclosure, improper processing or loss of control over the data.

Furthermore, according to the World Federation of Advertisers, other problems include: potential loss of control over brand intellectual property, generation of content that unintentionally infringes on the intellectual property rights of third parties, and lack of ownership or exclusive copyright to advertising materials generated using GenAI tools (<https://www.media-marketing.com/en/news/use-of-generative-artificial-intelligence>). Experts also point out that the use of GenAI may cause the problem of content duplication and gradual homogenisation of messages, as well as a decline in the originality and effectiveness of advertising campaigns. Consequently, it seems that GenAI technology will only be accepted in the advertising sector if the benefits are perceived as significant and the risks as potential but avoidable, minimisable or at least insurable (Floridi et al., 2018), both from the perspective of brands and consumers.

Trust in content generated by GenAI

Trust is considered a catalyst for interaction between consumers and technology, which can influence the formation of expectations towards it (Marriott & Williams, 2018). At the same time, however, trust depends on the attributes of AI (e.g., ease of use, intuitiveness of AI-based solutions, security, including data security) as well as subjective consumer expectations (McKnight et al., 2011). It is also reinforced by social influence (e.g., opinions of family, friends, acquaintances, influencers) (Johnson et al., 2008; Hsu & Lin, 2015), which constitutes the context in which the consumer operates (Venkatesh et al., 2012). In digital contexts, trust is also influenced by cybersecurity concerns and the perceived safety of online interactions (Kuzior et al., 2024).

The issue of transparency in advertising materials created using generative artificial intelligence is becoming increasingly important. The lack of clear information about the use of GenAI at any stage of the process may lead to a decline in consumer confidence or its loss if

consumers feel misled about the authorship, authenticity or intent of the message. On the one hand, there are calls for content generated using GenAI to be labelled as such, pointing to this as a desirable practice from an ethical point of view. On the other hand, it is pointed out that disclosing the involvement of artificial intelligence may paradoxically lead to a decline in trust in the brand and content creator, as AI-generated advertisements are often perceived as less credible and less authentic (Schilke & Reimann, 2025). It would seem that disclosing the use of artificial intelligence would increase consumer trust, but paradoxically, it often leads to an erosion of that trust. Such reactions may stem from an aversion to AI-based solutions and avoidance of them (Erlei et al., 2022), especially in situations where the scope of use of this technology concerns areas considered typically 'human' (Longoni et al., 2019). Research also shows that consumer trust declines when consumers do not know to what extent GenAI was involved in the creation process (the entire text or part of it) (Jakesch et al., 2019), and mistrust stems from the fact that the use of this technology was considered laziness on the part of the creator. The resulting materials were considered unreliable and lacking in authenticity. Interestingly, human disclosure of AI involvement may lead to a reduction in legitimacy resulting from the unclear division of roles between humans (marketers) and GenAI (Canãas, 2022), as a result of which the marketer will be perceived as less trustworthy, especially if the consumer considers such cooperation to be unjustified (Schilke&Reimann, 2025). On the other hand, other studies indicate that work generated entirely by AI has gained greater trust than content created by humans assisted by this technology. People also tend to underestimate the capabilities of artificial intelligence, which may be due to their failure to recognise the exponential pace of development of this technology (Yarza, 2025). As a result, consumers will interpret information about the use of GenAI in advertising in a way that is consistent with their own desires or beliefs, including those regarding artificial intelligence as a technology.

METHODS

Developing hypotheses

In order to identify the generative role of AI in advertising, a systematic literature review (SLR) was conducted, which minimises bias and allows for the collection of reliable results (Moher et al., 2009), forming the basis for the preparation and implementation of our own empirical research. The literature review was conducted based on two international and interdisciplinary databases, recognised as the databases with the widest access to literature in the social sciences: Web of Science and Scopus. The keywords were defined as: 'generative artificial intelligence', 'generative AI', 'GenAI' and "advertising", 'advertising materials', and the search period covered the years 2022-2025, with the start date of the search based on the activation date of the first GenAI tool (ChatGPT - November 2022). The identification process took into account articles published in English in the fields of Business, Management and Accounting. To increase methodological rigour, the literature search focused exclusively on articles published in peer-reviewed journals. At the analysis stage, the records obtained were subjected to established inclusion and exclusion criteria in order to narrow down the selection of relevant articles to those directly related to the analysed subject areas, and then an in-depth analysis of the content of these articles was carried out, taking into account their number of citations. This

allowed us to identify key themes related to the use of GenAI in the creation of advertising materials.

The bibliometric analysis indicates a high degree of dispersion in the issues surrounding GenAI and its role in advertising, which is typical for new concepts and related areas of research. Previous research indicates that consumers' attitudes towards GenAI as a technology, as in the case of AI, are influenced by a number of factors, including the purpose for which the technology is used (Bozkurt & Gursoy, 2025; Guszczka et al., 2017) and the context of its application (Zehnle, 2025). Perceived usefulness, perceived ease of use, and the risks associated with its use (Liang et al., 2020) and the resulting level of consumer trust are also identified as key determinants of attitudes. Research on consumer reactions to the use of GenAI in the creation of advertising materials has only just begun and focuses primarily on the technical possibilities of generating specific materials and content and the ethical aspects associated with this. To a lesser extent, however, the issue of the level of social acceptance of advertising materials created using GenAI tools and the key factors determining the level of this acceptance and the level of consumer confidence in such materials is addressed. Research on AI integration in professional contexts reveals diverse perspectives on acceptance and adoption (Woźniak-Jęchorek et al., 2023).

In our study, we decided to use the meta-UTAUT model, which is a modified version of the UTAUT model. It was developed by adding attitude as an intermediary construct, which significantly increased the explanatory power in terms of behavioural intentions from 38% to 45% (Dwivedi et al., 2019). This model is currently considered an alternative to the UTAUT model in understanding acceptance, use, and Similar approaches have been applied to study digital entrepreneurship intention and technology acceptance in various contexts (Alkhalaileh et al., 2023; Malaquias et al., 2023).behaviour towards digital technologies (Dwivedi et al., 2020). Some authors believe that this model provides an opportunity for a holistic approach to research modelling, although in general, the model is only used in different contexts, and authors do not attempt to extend it with additional variables (Alkhowaiter, 2022). Similar to the UTAUT model, meta-UTAUT consists of four important variables: *Performance Expectancy*, *Effort Expectancy*, *Social Influence*, and *Facilitating Conditions*). These have both a direct and indirect (through the *Attitude* construct) impact on *Behavioural Intention*. For the purposes of this study, the variables in the model have been expanded to include trust, hedonic motivation and consumer habits, which have a significant impact on the individual level of acceptance of digital technologies.

Performance Expectancy (PE) refers to the level of individual belief that using a given technology can help consumers achieve greater effectiveness in performing specific activities (Venkatesh et al., 2012). The authors defined it as the degree to which a consumer believes that using advertising materials generated with GenAI tools can increase their effectiveness in achieving specific goals (e.g., purchasing). This is because the content provided to them in this way is more personalised and tailored to their needs and expectations, which allows them to be more effective in the decision-making and purchasing process. PE may also have a positive impact on behavioural intention related to the use of advertising materials generated using GenAI tools (Alkhowaiter, 2022). This allowed us to formulate the following hypotheses:

H1. Performance expectations positively influence attitudes towards advertising materials generated using GenAI.

H2. Performance expectations positively influence behavioural intentions regarding the acceptance of advertising materials generated using GenAI.

Effort Expectancy (EE) is the level of comfort and convenience expected when using an application or system (Venkatesh et al., 2012). Consumers expect that using them will be easy, intuitive and not require much cognitive effort. In the context of advertising materials generated using GenAI tools, this concept refers to the consumer's belief that interacting with such materials does not require specialist technological knowledge and is intuitive. It is also assumed that EE has a significant impact on attitudes and behavioural intentions (Hermanto et al., 2022; Rana et al., 2023), which has led to the following hypotheses:

H3. Effort Expectancy positively influence attitudes towards advertising materials generated using GenAI.

H4. Effort Expectancy positively influence behavioural intentions regarding the acceptance of advertising materials generated using GenAI.

Social Influence (SI) is defined as the degree to which a consumer is convinced that people who are important in their life, such as family or friends, believe that they should use a given technology and solutions based on it (Venkatesh et al., 2003) and accept it. This is particularly important in the initial period of implementation of such solutions on the market (Alalwan et al., 2017). People tend to seek advice from others, and awareness of their opinions can influence BI in terms of acceptance of a given technology (Celedonio & Picaso, 2023). In the context of advertising materials generated using GenAI tools, this concept refers to the consumer's belief that the acceptance and use of such tools, e.g. in the decision-making process, are socially approved. Social influence can not only affect consumer attitudes, but also build behavioural intentions related to the acceptance of advertising materials generated using GenAI tools (Singh et al., 2020), which allowed the following research hypotheses to be formulated:

H5. Social Influence positively influence attitudes towards advertising materials generated using GenAI.

H6. Social Influence positively influence behavioural intentions regarding the acceptance of advertising materials generated using GenAI.

Facilitating Conditions (FC) refer to the degree to which a person believes that resources are available to support them in performing a specific action (Venkatesh et al., 2012). FC relate to the consumer's perception of the level of support, e.g. organisational and technological, in using a given technology. In the context of advertising materials generated using generative artificial intelligence tools, FC will refer to the consumer's perception of the extent to which a particular technological, legal or information environment supports their interaction with such materials.

H7. Facilitating Conditions positively influence attitudes towards advertising materials generated using GenAI.

H8. Facilitating Conditions positively influence behavioural intentions regarding the acceptance of advertising materials generated using GenAI.

Trust (TRST) is an important element in the relationship between consumers and a given technology, influencing the way in which their expectations of it are formed (Marriott & Williams, 2018). It leads to greater consumer engagement in specific activities (Alshboul,

2024) and reinforces behavioural intentions towards technology (Alkhowaiter, 2022) and the effects of its use. With regard to advertising materials generated using GenAI tools, trust will influence the assessment of the credibility and authenticity of such materials and their content, which will influence the consumer's willingness to accept them. As a result, trust will act as a mechanism to reduce consumer uncertainty and cognitive risk, increasing their behavioural intention to use such materials in the decision-making and purchasing process.

H9. Trust positively influence attitudes towards advertising materials generated using GenAI.

H10. Trust positively influence behavioural intentions regarding the acceptance of advertising materials generated using GenAI.

Hedonic Motivation (HM) is related to deriving pleasure from using a given technology (Venkatesh et al., 2012). As a result, consumers will be more likely to choose solutions that they find fun and enjoyable to use. In the context of AI-generated advertising, this concept means that consumers will derive pleasure from interacting with advertising materials generated using GenAI tools, e.g. due to their visual appeal or innovative creative approach. This influences both consumers' attitudes and their behavioural intention to use such advertising materials.

H11. Hedonic Motivation positively influence attitudes towards advertising materials generated using GenAI.

H12. Hedonic Motivation positively influence behavioural intentions regarding the acceptance of advertising materials generated using GenAI.

Habit (HT) is most often defined as the extent to which people tend to perform behaviours automatically (Venkatesh et al., 2012), which leads to repeatable consumer behaviour and is the result of their previous experiences. It reduces the need to make conscious decisions about, for example, purchasing specific products or products of a particular brand. In the context of the acceptance of advertising materials generated using generative artificial intelligence tools, Habit has been defined as the degree to which consumers automatically respond to this type of content, guided by existing cognitive and behavioural patterns shaped by previous encounters with similar forms of communication.

H13. Habit positively influence attitudes towards advertising materials generated using GenAI.

H14. Habit positively influence behavioural intentions regarding the acceptance of advertising materials generated using GenAI.

Attitudes (ATT) are related to individual consumer behaviour and are defined as individual characteristics that influence behaviour related to the adoption of a given system (Chatterjee et al., 2023), technology or solutions based on it. Attitude is a tendency that formulates positive or negative beliefs that can lead to behavioural change (Alkhowaiter, 2022). Furthermore, it is assumed that attitudes have both an indirect and direct impact on user behaviour (Dwivedi et al.), which means that the extent to which a given technology is used will depend on the user's individual attitude towards it. It is also noted that attitudes are significantly related to users' intentions to use a given technology or solutions based on it

(Chatterjee et al., 2023). Therefore, a positive attitude of consumers towards advertising materials generated using GenAI tools may positively influence their behavioural intentions to use them.

Behavioural Intention (BI) is most often defined as an indication of a consumer's readiness to engage in a specific behaviour and to accept and adopt a given technology (Chatterjee et al., 2023). It refers to the extent to which a given technology proves to be useful to the consumer and consistent with their expectations, which influences their attitude and leads to the formation of behavioural intention (Jeyaraj et al., 2019).

H15. Attitudes towards advertising materials generated using GenAI have a positive impact on consumers' behavioural intentions towards these materials.

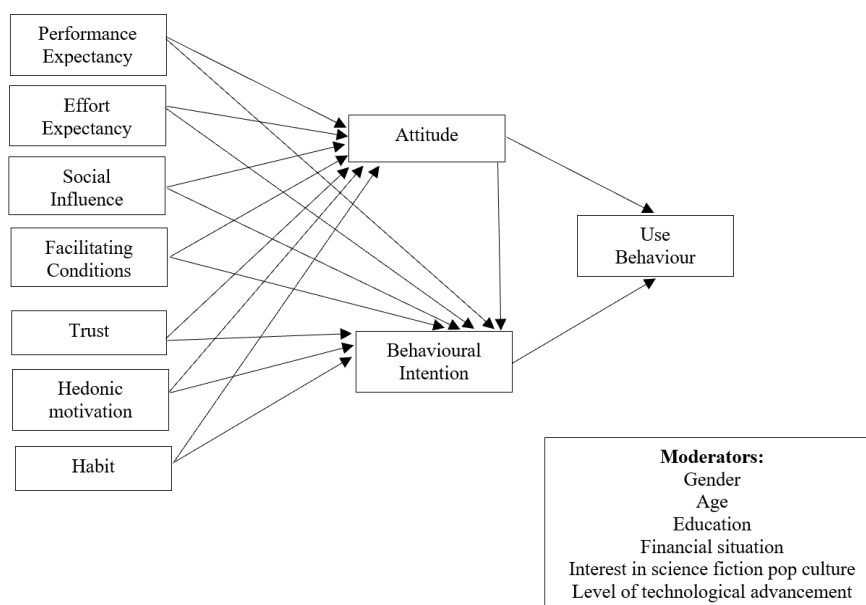


Figure 1. Research model

Consumers' attitudes towards AI and its effects are also related to their demographic and psychographic profiles, including, for example, their level of technological sophistication (Yang et al., 2016), cultural norms and beliefs they represent/adhere to (Jeon et al., 2018), previous experience with technology (McKechnie et al., 2006) or interests (Laakasuo et al., 2018), as well as the needs reported by consumers that technology allows them to satisfy (Wang et al., 2011). These factors shape both the level of consumer acceptance and their behavioural intention.

The influence of gender on the perception of artificial intelligence, despite being the subject of repeated research, remains unclear. On the one hand, we have studies that show a significant impact of gender, emphasising the fact that men are more positive towards artificial intelligence technology and have greater knowledge about it than women (Hick & Ziefle, 2022). On the other hand, we have studies indicating that the differences between women and men are gradually blurring (Zhan et al., 2023). This suggests the complexity of the influence

of this factor, especially when taking into account the socio-cultural context of consumers. However, the influence of age on consumers' attitudes towards AI is clear. Research shows that it changes with age (Zhan et al., 2023) and that the older people are, the less favourable their attitude towards artificial intelligence may be compared to younger people (O'Shaughnessy et al., 2023). Income level is also significant. Research indicates that people with low incomes may be more sceptical about artificial intelligence. It has been observed that people with low socio-economic status have a lower level of trust in artificial intelligence and are less likely to support its development (Bullock et al., 2022). On the other hand, people with higher incomes are usually more aware of the possibilities, potential applications and risks associated with artificial intelligence, and also demonstrate a higher level of technological competence and knowledge in this area.

Data collection

Survey methods were chosen because they allow for the effective collection of data from a large sample, providing a broad picture of users' experiences and perceptions (Dillman, 2011). The research was conducted in September 2024 using an online survey. The survey was addressed to adults who declared that they had encountered the concept of generative artificial intelligence (GenAI). The full characteristics of the population are presented in Table 1. The data collection process was anonymous, which was communicated to respondents before the study began. The authors did not impose a time limit on the completion of the research questionnaire.

The full research questionnaire consisted of 29 questions. For the purposes of this study, 9 items measured using the Likert scale were taken from it and supplemented with 7 demographic questions. Since the original measurement scale for the meta-UTAUT model was taken from English-language literature, it required adaptation. This process was carried out in accordance with the typical procedure used in such situations and focused primarily on the translation and transcription stage.

The questionnaire included typical control variables most commonly used in studies on the acceptance of digital technologies and solutions based on them (gender, age, level of education, place of residence, subjective assessment of one's financial situation). Other control variables we adopted included subjective assessment of one's own level of technological advancement and interest in science fiction pop culture. The study was preceded by a pilot phase, which allowed us to verify the correctness of the methodological assumptions and eliminate any ambiguities in the wording of the research questionnaire, as well as to assess its initial reliability and validity. After this validation process, the questionnaire was used in the actual study.

Sample

A total of 1,045 respondents took part in the survey. Women predominated (50.6%), with a similar percentage of men (49.3%), while the proportion of people who did not want to disclose their gender was marginal (0.1%). The average age of respondents was $M = 49.86$ years with a standard deviation $SD = 17.13$, which indicates a diversity in the age of the respondents. In

terms of education, people with secondary (38.6%) and higher (32.2%) education predominate, while 29.3% of respondents have primary or vocational education. The assessment of the financial situation indicates that the majority of participants in the study declare an average level of wealth (60.8%), with 23.5% assessing their situation as good and only 13.2% as bad or very bad. Most respondents live in rural areas (36.6%) and small and medium-sized towns with up to 100,000 inhabitants (33.6% in total). The share of residents of large urban centres with more than 200,000 inhabitants was 21.8%, of which 12.5% were people from cities with more than 500,000 inhabitants. The level of technological advancement of the respondents is unevenly distributed – the largest group (42.6%) indicated level 3, corresponding to moderate advancement, while 17.6% of respondents rated themselves at level 2 or 4, and 6.5% at the highest level 5. In addition, 43% of respondents declare an interest in science fiction pop culture, while 57% do not show such interest.

Table 1. Characteristics of the respondents (n=1045)

| Feature | Structure in % |
|---|----------------|
| Gender | |
| Woman | 50.6 |
| Man | 49.3 |
| <i>I don't want to disclose</i> | 0.1 |
| Age | |
| up to 24 years old | 6.8 |
| 25–34 years old | 17.2 |
| 35–44 years old | 16.2 |
| 45–54 years old | 17.6 |
| 55–64 years old | 17.0 |
| 65 years and older | 25.2 |
| Education | |
| Basic | 29.3 |
| Medium | 38.6 |
| Higher | 32.2 |
| Financial situation | |
| Very bad | 3.5 |
| Bad | 9.7 |
| Average | 60.8 |
| Good | 23.5 |
| Very good | 2.5 |
| Place of residence | |
| Village | 36.6 |
| Town with up to 10,000 inhabitants | 5.8 |
| Town with a population of 10,001 to 50,000 | 16.9 |
| Town with a population of between 50,001 and 100,000 | 10.9 |
| Town with a population of between 100,001 and 200,000 | 7.9 |
| Town with a population of between 200,001 and 500,000 | 9.3 |
| City with a population of over 500,000 | 12.5 |
| Level of technological advanced | |
| 1 | 15.7 |
| 2 | 17.6 |
| 3 | 42.6 |
| 4 | 17.6 |
| 5 | 6.5 |
| Interest in science fiction pop culture | |
| No | 57.0 |
| Yes | 43.0 |

RESULTS

In order to empirically verify the research hypotheses, the full structural model was estimated using the maximum likelihood (ML) estimation method. The full SEM model showed a very good fit. The chi-square statistic was significant ($\chi^2=1682.748$; $p<0.001$), which is typical for a large sample size and does not constitute an independent basis for rejecting the model. The relative index $\chi^2/df=3.67$ falls within the range of values considered acceptable ≤ 5 . The comparative fit indices take very good values: CFI=0.967, TLI=0.962, NFI=0.955, IFI=0.967 – all exceed the threshold of 0.95, which indicates a high fit of the theoretical model to the data (Hu&Bentler, 1999). The parsimony indices (PNFI=0.830, PCFI=0.840) confirm that despite the complex structure, the number of estimated parameters remains theoretically and statistically justified. The RMSEA approximation error index=0.051 (90% CI: 0.048–0.053; PCLOSE=0.362) indicates a good approximate fit of the model to the data, meeting the recommended criteria (RMSEA<0.06 – Hu & Bentler, 1999). The very good SRMR=0.0402 value confirms minimal differences between the observed and predicted covariance matrix, which further strengthens the global fit assessment. Hoelter's N values of 317 ($p<0.05$) and 331 ($p<0.01$) suggest that the model remains stable even with a sample size of over 300 observations, which is a sign of good identifiability and reliability of estimation. The results obtained confirm the good fit of the structural model.

In the next step, the reliability of the constructs under study and the F-L criterion (Fornell & Larcker, 1981) were analysed (Table 2).

Table 2. Measures of reliability of the examined constructs

| Scale | Item | Factor loading | CR | AVE |
|-------|------|----------------|-------|-------|
| PE | PE1 | 0,887 | 0,944 | 0,808 |
| | PE2 | 0,896 | | |
| | PE3 | 0,915 | | |
| | PE4 | 0,898 | | |
| EE | EE1 | 0,91 | 0,936 | 0,784 |
| | EE2 | 0,866 | | |
| | EE3 | 0,886 | | |
| | EE4 | 0,88 | | |
| SI | SI1 | 0,926 | 0,935 | 0,828 |
| | SI2 | 0,893 | | |
| | SI3 | 0,91 | | |
| FC | FC1 | 0,876 | 0,867 | 0,622 |
| | FC2 | 0,863 | | |
| | FC3 | 0,711 | | |
| | FC4 | 0,686 | | |
| HM | HM1 | 0,826 | 0,910 | 0,771 |
| | HM2 | 0,909 | | |
| | HM3 | 0,897 | | |
| HT | HT1 | 0,903 | 0,913 | 0,723 |
| | HT2 | 0,825 | | |
| | HT3 | 0,816 | | |
| | HT4 | 0,855 | | |
| BI | BI1 | 0,882 | 0,968 | 0,789 |
| | BI2 | 0,895 | | |

| | | | | |
|-------------|-------|-------|-------|-------|
| | BI3 | 0,915 | | |
| ATT | ATT1 | 0,866 | 0,947 | 0,780 |
| | ATT2 | 0,899 | | |
| | ATT3 | 0,891 | | |
| | ATT4 | 0,883 | | |
| | ATT5 | 0,876 | | |
| TRST | TRST1 | 0,891 | 0,977 | 0,793 |
| | TRST2 | 0,886 | | |
| | TRST3 | 0,909 | | |

PE – expected performance, EE - expected effort, SI - social influence, FC - facilitating conditions, HM - hedonic motivation, HT - habit, BI - behavioural intention, ATT– attitude, TRST – trust

All factor loadings took on high and significant values, exceeding the recommended threshold of 0.70, which confirms the strong correlation between the observed indicators and the corresponding latent variables. The Composite Reliability (CR) values for all constructs exceeded the threshold of 0.70, ranging from 0.867 (FC) to 0.977 (TRST), which indicates high internal consistency of the measurement. At the same time, all Average Variance Extracted (AVE) values exceeded the recommended level of 0.50 (Fornell & Larcker, 1981), reaching values from 0.622 (FC) to 0.828 (SI), which confirms the satisfactory convergent validity of the analysed constructs. High factor loadings (≥ 0.68 for FC and ≥ 0.82 for the other constructs) indicate that each element of the scale clearly reflects a conceptually defined theoretical construct. Particularly high coefficients were recorded for the variables PE (0.887–0.915), EE (0.866–0.910), SI (0.893–0.926) and BI (0.882–0.915) variables, which confirms the stability and precision of the measurement. The obtained values of reliability (CR) and convergent validity (AVE) meet the criteria accepted in the literature on the subject, indicating that the adopted measurement model is characterised by high consistency and theoretical validity, enabling further structural analysis. The results of the model testing are presented in the table below.

Table 3. Path coefficients

| Hypothesis | Path | Standardised estimate | Unstandardised Estimate | S.E. | C.R. | p | Comments |
|------------|------------|-----------------------|-------------------------|-------|--------|--------|---------------|
| H1. | PE → ATT | 0,071 | 0,098 | 0,045 | 2,164 | 0,030 | Supported |
| H2. | PE → BI | 0,290 | 0,278 | 0,036 | 7,738 | <0,001 | Supported |
| H3. | EE → ATT | 0,086 | 0,130 | 0,053 | 2,453 | 0,014 | Supported |
| H4. | EE → BI | 0,085 | 0,089 | 0,042 | 2,115 | 0,034 | Supported |
| H5. | SI → ATT | -0,102 | -0,156 | 0,037 | -4,210 | <0,001 | Supported |
| H6. | SI → BI | 0,128 | 0,135 | 0,031 | 4,400 | <0,001 | Supported |
| H7. | FC → ATT | -0,024 | -0,046 | 0,073 | -0,636 | 0,525 | Not supported |
| H8. | FC → BI | 0,040 | 0,053 | 0,057 | 0,932 | 0,351 | Not supported |
| H9. | TRST → ATT | 0,607 | 0,638 | 0,030 | 21,022 | <0,001 | Supported |
| H10. | TRST → BI | 0,131 | 0,095 | 0,044 | 2,162 | 0,031 | Supported |
| H11. | HM → ATT | 0,436 | 0,618 | 0,045 | 13,811 | <0,001 | Supported |
| H12. | HM → BI | 0,164 | 0,160 | 0,050 | 3,203 | 0,001 | Supported |
| H13. | HT → ATT | -0,097 | -0,147 | 0,042 | -3,516 | <0,001 | Supported |
| H14. | HT → BI | 0,242 | 0,252 | 0,034 | 7,363 | <0,001 | Supported |
| H15. | ATT → BI | -0,014 | -0,010 | 0,056 | -0,172 | 0,864 | Not supported |

Attitudes (ATT) towards advertising materials generated using GenAI tools were most strongly influenced by perceived threat (TRST) ($\beta=0.607$; $p<0.001$) and hedonistic motivation (HM) ($\beta=0.436$; $p<0.001$). A positive, albeit weaker, effect was observed for expected performance (PE) ($\beta=0.071$; $p=0.030$) and expected effort (EE) ($\beta=0.086$; $p=0.014$). On the other hand, social influence (SI) ($\beta=-0.102$; $p<0.001$) and habit (HT) ($\beta=-0.097$; $p<0.001$) had a negative effect on attitudes. The effect of facilitating conditions (FC) proved to be insignificant ($\beta=-0.024$; $p=0.525$). In the case of behavioural intention (BI), a significant and strongest effect was found for perceived efficacy (PE) ($\beta=0.290$; $p<0.001$) and habit (HT) ($\beta=0.242$; $p<0.001$). Hedonic motivation (HM) ($\beta=0.164$; $p=0.001$), perceived threat (TRST) ($\beta=0.131$; $p=0.031$), social influence (SI) ($\beta=0.128$; $p<0.001$) and, to a lesser extent, expected effort (EE) ($\beta=0.085$; $p=0.034$) also played a significant role. Paths from attitude (ATT) ($\beta=-0.014$; $p=0.864$) and facilitating conditions (FC) ($\beta=0.040$; $p=0.351$) to behavioural intention were statistically insignificant. The observed lack of a significant relationship between attitudes and behavioural intention suggests that the mechanism of shaping consumers' behavioural intentions towards advertising materials generated using GenAI tools is more direct and does not require mediation by attitudes.

Next, indirect, direct and total effects were analysed.

Table 4. Indirect, direct and total effects

| Path | Indirect Effects | Direct Effects | Total Effects |
|-----------|------------------|----------------|---------------|
| PE → BI | 0,008 | 0,290*** | 0,298*** |
| EE → BI | 0,010 | 0,085* | 0,095* |
| SI → BI | 0,011 | 0,128*** | 0,139*** |
| FC → BI | 0,006 | 0,040 | 0,046 |
| HM → BI | 0,044 | 0,164** | 0,208*** |
| HT → BI | 0,010 | 0,242*** | 0,252*** |
| TRST → BI | 0,061 | 0,131* | 0,192*** |
| ATT → BI | – | –0,014 | –0,014 |

* $p<0,05$; ** $p<0,01$; *** $p<0,001$

The bootstrapping procedure (2000 replicates) revealed that the indirect effects of all independent variables are statistically insignificant, which means that there is no mediation by attitude (ATT). The ATT → BI path remains insignificant ($\beta = -0.014$; $p = 0.864$), therefore none of the predictors indirectly influence behavioural intention (BI). The strongest total effects were obtained for expected performance (PE, $\beta=0.298$ ***), habit (HT, $\beta=0.252$ ***), hedonic motivation (HM, $\beta=0.208$ ***), and perceived threat (TRST, $\beta=0.192$ ***).

The PROCESS macro (ver. 4.1, model 1) was used to verify the moderating effects, and the results are presented in the table below.

Table 5. Moderating effects

| Path | Moderator | | | | | | |
|------------|-----------|---------|-----------|---------------------|---|---------------------|------------------------------------|
| | Gender | Age | Education | Financial situation | Interest in science fiction pop culture | Financial situation | Level of technological advancement |
| PE → ATT | 0,2641 | 0,1979 | 0,1944 | 0,5816 | 0,3427 | 0,5816 | 0,1839 |
| EE → ATT | 0,4996 | 0,1879 | 0,0104* | 0,2309 | 0,4775 | 0,2309 | 0,0700 |
| SI → ATT | 0,2502 | 0,0768 | 0,0889 | 0,5737 | 0,0358* | 0,5737 | 0,2872 |
| FC → ATT | 0,9406 | 0,0474* | 0,0232* | 0,4279 | 0,0511 | 0,4279 | 0,0170* |
| HM → ATT | 0,6516 | 0,2729 | 0,2930 | 0,7232 | 0,7952 | 0,7232 | 0,0412* |
| HT → ATT | 0,1170 | 0,0755 | 0,6759 | 0,9194 | 0,1331 | 0,9194 | 0,9009 |
| TRST → ATT | 0,1578 | 0,5466 | 0,1010 | 0,3534 | <0,001* | 0,3534 | 0,1493 |

*p<0,05

The analysis shows that the relationship between EE and ATT is moderated by education (beta=-0.105; SE=0.041; t=-2.57; p=0.0104; F(3, 1041)=324.09; p<0.001, R2=0.48). An increase in the value of the moderator weakens the positive effect of EE on ATT — the higher the level of education, the weaker the relationship between expected effort and attitude becomes. In the case of the relationship between SI and ATT, moderation was demonstrated in relation to interest in fantasy (beta=0.161; SE=0.077; t=2.10; p=0.0358; F(3, 1041)=148.90; p < 0.001, R2=0.30). An increase in the value of the MX2 moderator therefore increases the strength of the positive social influence on the attitude towards technology. The relationship between FC and ATT is moderated by the level of education (beta=-0.102; SE=0.045; t=-2.27; p=0.0232; F(3, 1041)=274.88, p<0.001, R2=0.44), indicating that the strength of the influence of favourable conditions on attitude decreases with increasing education. This relationship is also moderated by age (beta=-0.004; SE=0.002; t=-1.99; p=0.0474; F(3,1041) =274.34; p<0.001; R=0.44), a negative moderating effect was observed, as well as the level of technological advancement (beta=0.072; SE=0.030; t=2.39; p=0.017; F(3,1041) = 280.38; p<0.001, R2=0.45) – as the level of technological advancement increases, the strength of this relationship increases. In the case of the relationship between HM and ATT, moderation was observed in relation to the level of technological advancement (beta=0.044; SE=0.022; t=2.04; p=0.0412; F(3,1041)=694.28; p<0.001, R2=0.67) – analysis of simple effects showed that the impact of HM on ATT is positive and significant at all levels of the moderator, and the strength of this relationship increases with its growth. Moderation was also observed in the relationship between TRST and ATT in relation to interest in science fiction pop culture (beta=0.144; SE=0.034; t=4.28; p<0.001; F(3,1041) = 899.34; p<0.001, R2 = 0.72). A stronger relationship was observed among people who are not interested in science fiction pop culture than among those who declared such an interest.

DISCUSSION

The article analyses factors influencing the level of acceptance of advertising materials generated using generative AI, including, in particular, the impact of trust, habit and hedonistic motivation. In addition, it examines whether consumers' attitudes towards advertising materials generated using GenAI influence their behavioural intention.

Research has shown that consumer attitudes towards materials generated using GenAI were most influenced by trust in such materials. This may include issues such as the credibility and authenticity of these materials, as well as the belief that they do not deliberately mislead consumers, manipulate their emotions, present a false reality, or violate their fundamental rights. Consumers who trust that the materials are credible and ethical are more likely to form positive attitudes towards them, which is consistent with previous research on trust (Siau & Wang, 2018; Taherdoost, 2018). The positive impact of hedonistic motivation on consumer attitudes towards advertising materials generated using GenAI is also not surprising. Such materials allow for the creation of highly attractive texts, photos or videos used in advertising campaigns (e.g., humour, engaging narrative, surprise effect, etc.), which provide aesthetic pleasure and, often, entertainment value. The pleasure experienced by consumers who encounter them will influence their positive attitudes towards them. These results are consistent with most of the existing research on the impact of trust and hedonistic motivation on the level of acceptance of digital technologies, new solutions based on these technologies, and expectations towards them.

Research has shown the negative impact of AI on consumer attitudes towards materials generated using GenAI (the impact of AI on attitudes is evident, for example, in studies by Johnson et al, 2008; Hsu&Lin, 2015). The negative impact of AI observed in this case may be the result of the prevailing scepticism towards this technology in the public sphere and the narrative focusing on the risks and challenges associated with it. It may also be due to the fact that these materials are very often not labelled, which leads to a lack of transparency towards consumers. As a result, consumers may perceive such materials as less credible or socially unacceptable when they observe, for example, negative reactions from their immediate environment towards this technology or its implementation in creative sectors, including advertising.

Assuming that habit is understood as the degree to which consumers automatically respond to advertising content by referring to previously developed cognitive and behavioural patterns, its negative impact on consumer attitudes towards advertising materials generated using GenAI tools does not seem surprising. Consumers, having established patterns of receiving advertising materials and consuming advertising content, may reject those that deviate from their existing, familiar standards, regardless of their attractiveness or quality (substantive, visual, aesthetic). Interestingly, however, our research shows that habit also has a positive impact on Behavioural Intention, suggesting that it functions as a mechanism that facilitates quick decision-making, regardless of initial uncertainty or scepticism towards such advertising materials. This correlation was also evident in other studies by the authors concerning the level of acceptance of AI wearables (Sułkowski&Kaczorowska-Spychalska, 2021). As a result, consumers may display a negative attitude towards materials generated using GenAI tools, but at the same time, despite this, automatically respond to them (positive

behavioural intention). Moreover, the consumer's inability to identify which advertising materials were generated using GenAI tools can often exacerbate the observed relationship.

The behavioural intention of consumers was most influenced by expected performance, which may be due to the fact that consumers are more likely to take actions that they perceive as useful in achieving their goals and specific results. In the context of advertising materials generated using GenAI tools, it can be assumed that consumers who believe that such materials will provide them with valuable information that will facilitate their decision-making or purchasing process, as well as improve their experience of that process, will be more inclined to accept such materials. The observed correlation may be similar to that indicated by the authors in their earlier studies on payment implants. Negative opinions, often verbalised in the social sphere, influenced consumer attitudes, but at the same time, individual assessment of such implants depended on the level of perception of the pragmatic aspects they provided (Sułkowski&Kaczorowska-Spychalska, 2023).

The influence of favourable conditions (FC) proved to be insignificant, both in terms of shaping attitudes and behavioural intentions of consumers towards advertising materials generated using GenAI tools, which means that the technological, legal or information environment does not have to be a factor supporting their interaction with this type of material.

Interestingly, the study found no significant relationship between consumer attitudes towards advertising materials generated using GenAI tools and behavioural intention. This contradicts a significant portion of the research on the relationship between these variables. This indicates that the process of behavioural intention formation in this case is direct and does not require mediation by attitudes. Perhaps this is due to the fact that consumers will be guided primarily by the benefits that such materials provide them (e.g., personalisation of content or attractive visual form), marginalising their attitudes (positive or negative) towards the fact that they were generated with the support of generative AI tools. This may then indicate ambivalence in consumer attitudes and/or behaviour, as previously indicated by van Harreveld (van Harreveld et al., 2015).

Research has confirmed the influence of certain moderating factors: age (which is consistent with, among others, the research of Zhan et al., 2023), education, technological sophistication (subjective consumer assessment) (confirmed, among others, by the research of Yang et al., 2016; Gao et al., 2022) and interests (Hick & Ziefle, 2022). And although it is accepted that moderating factors are important, it is also noted that in some situations, some of them may be of little or no significance (Jeyaraj et al., 2019), which is evident in the study.

IMPLICATIONS FOR RESEARCH AND APPLICATION

Our research expands the existing knowledge on the factors determining the level of acceptance of GenAI tools in the advertising sector, contributing to the development of research on the conditions of perception and acceptance of advertising materials generated using generative artificial intelligence. We have thus responded to Alkhowaiter's suggestion that further research based on the meta-UTAUT model should include additional variables that allow for the modification of existing research constructs. In this way, our research expands on existing empirical results. The results obtained are also relevant to market practice from the point of

view of the use of this technology in marketing departments, including advertising, as well as in media houses and advertising agencies.

We pay particular attention to the key importance of trust and hedonistic motivation in shaping consumer attitudes towards such materials. Research shows that, on the one hand, it is important to build consumer trust in this type of advertising material by ensuring transparency, e.g. in terms of authorship, credibility and ethical aspects. On the other hand, it is important that these materials are visually appealing and engaging so that consumers enjoy interacting with them. It would be advisable to expand this research to include constructs related to the perceived credibility and authenticity of such materials, as well as the aesthetic pleasure and satisfaction experienced by consumers when interacting with them.

Research has also shown that consumers will be more likely to engage with AI-generated messages when they see specific, objective benefits in them (e.g., the ability to make optimal purchasing decisions). Their habits also proved to be significant. Established consumer patterns regarding the perception of advertising materials may limit their openness to the effects of human and GenAI work in advertising. Therefore, it seems reasonable to design such materials in a way that ensures a balance between innovation and consumer habits, which may alleviate their distrust.

Finally, research indicates that the process of shaping consumers' behavioural intentions is largely direct and does not require the mediation of attitudes. However, this topic should be further analysed, especially considering the diversity of advertising materials created using GenAI tools. The results obtained mean that consumers may engage with GenAI materials primarily based on their usefulness or suitability to their own needs and expectations, regardless of their emotional evaluation. Therefore, the use of generative artificial intelligence in advertising should not be seen merely as a 'trendy' technological innovation, but as a well-thought-out, well-planned element that allows for more precise targeting of consumers. This can have a positive impact not only on the effectiveness and efficiency of future campaigns, but also on the long-term engagement of consumers with brands that use GenAI tools to create their advertising materials.

LIMITATIONS

As with most studies, the results of this article should be interpreted with its limitations in mind. Firstly, the study was conducted among consumers in a single country, which limits the generalisability of the results. The level of acceptance of advertising materials generated using GenAI tools may be strongly influenced by socio-cultural factors, the level of digitisation of society, and regulations governing the use of GenAI tools, including in advertising, from the point of view of the potential risk of consumer rights violations. It is therefore advisable to extend the research to other countries. This will allow for a comparative analysis in an intercultural context, which will result in the identification of potential similarities and differences in the level of acceptance of advertising materials generated using GenAI, as well as the identification of factors and patterns determining this process.

The study was based on consumers' declarative opinions, which may not fully reflect their actual behaviour when interacting with advertising materials generated using GenAI. It would

therefore be worthwhile to supplement the research with an analysis of consumers' actual reactions to such materials, including experimental studies.

Furthermore, the high average age of respondents indicates the need for more in-depth analysis in an intergenerational dimension. Younger users, who are more familiar with digital technologies, may have different attitudes towards advertising materials generated using GenAI, which will be important for both their behavioural intentions and their actual decision-making or purchasing behaviour.

Finally, it should be noted that GenAI is developing rapidly. What is more, on the one hand, its democratisation is increasing, which affects consumers' knowledge and skills, and on the other hand, its market absorption, including in advertising, will gradually increase, which means that consumer attitudes and behaviours may change quickly. This means that research in this area should be systematically reviewed to identify trends in the acceptance of advertising materials created using GenAI.

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Łukasz Sułkowski,
 Institute of Public Affairs, Jagiellonian University in Cracow, Poland,
lukasz.sulkowski@uj.edu.pl,
 ORCID: 0000-0002-1248-2743

Dominika Kaczorowska-Spychalska,
 Department of Marketing, Faculty of Management, University of Lodz, Poland,
dominika.spychalska@uni.lodz.pl,
 ORCID: 0000-0002-2566-0297

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Appendix

Please rate the following statements on a scale of 1 to 5, based on your own experience, where 1 means “strongly disagree” and 5 means “strongly agree”.

| | | 1 | 2 | 3 | 4 | 5 |
|-------------------------------|--|---|---|---|---|---|
| Performance Expectancy PE | PE1. I find generative AI tools useful in my daily life | | | | | |
| | PE2. Using generative AI tools increases my chances of achieving things that are important to me | | | | | |
| | PE3. Using generative AI tools helps me achieve my goal faster | | | | | |
| | PE4. Using generative AI tools increases my productivity | | | | | |
| Effort Expectancy EE | EE1. Learning how to use generative AI tools is easy for me | | | | | |
| | EE2. My interaction with generative AI tools is clear and understandable | | | | | |
| | EE3. I believe that generative AI tools are easy to use | | | | | |
| | EE4. It is easy for me to become proficient in using generative AI tools | | | | | |
| Social Influence SI | SI1. People who are important to me think that I should use generative AI tools | | | | | |
| | SI2. People who influence my behaviour think that I should use generative AI tools | | | | | |
| | SI3. People whose opinions I value prefer me to use generative AI tools | | | | | |
| Facilitating Conditions FC | FC1. I have the resources necessary to use generative AI tools | | | | | |
| | FC2. I have the knowledge necessary to use generative AI tools | | | | | |
| | FC3. Generative AI tools do not cause problems when using other technologies that I work with | | | | | |
| | FC4. I can get help from others when I have problems using generative AI tools | | | | | |
| Hedonic Motivation HM | HM1. Using generative AI tools is fun | | | | | |
| | HM2. Using generative AI tools is enjoyable | | | | | |
| | HM3. Using generative AI tools is very interesting | | | | | |
| Habit HT | HT1. Using generative AI tools has become a habit for me | | | | | |
| | HT2. I am addicted to using generative AI tools | | | | | |
| | HT3. I need to use generative AI tools | | | | | |
| | HT4. Using generative AI tools has become natural for me | | | | | |
| Trust (TRST) | TRST1. I trust GenAI systems and tools | | | | | |
| | TRST2. I consider GenAI systems and tools to be secure | | | | | |
| | TRST3. I consider GenAI systems and tools to be trustworthy | | | | | |
| Behavioural Intention BI | BI1. I intend to continue using generative AI tools in the future | | | | | |
| | BI2. I will always try to use generative AI tools in my daily life | | | | | |
| | BI3. I plan to use generative AI tools frequently | | | | | |
| Attitudes (ATT) | ATT1. Using generative AI is a wise idea | | | | | |
| | ATT2. I enjoy using generative AI | | | | | |
| | ATT3. Using generative AI is fun | | | | | |
| | ATT4. Using generative AI is beneficial | | | | | |
| | ATT5. Using generative AI is interesting | | | | | |

Gender

- Woman
 Man
 I don't want to disclose

Age

- up to 24 years old
 25–34 years old
 35–44 years old
 45–54 years old
 55–64 years old
 65 years and older

Education

- Basic
 Medium
 Higher

Financial situation

- Very bad Bad Average Good Very good

Place of residence

- Village Town with up to 10,000 inhabitants
 Town with a population of 10,001 to 50,000
 Town with a population of between 50,001 and 100,000
 Town with a population of between 100,001 and 200,000
 Town with a population of between 200,001 and 500,000
 City with a population of over 500,000

I rate my level of technological advancement on a scale of 1 to 5, where: 1 means a low level of technological advancement or a lack thereof, and 5 means a very high level of technological advancement:

- 1 2 3 4 5

Interest in science fiction pop culture

- Yes No