# ARTIFICIAL INTELLIGENCE AS A SOURCE OF INNOVATION IN THE PROMOTIONAL ACTIVITY OF ORGANIZATIONS

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### Abstract

The aim of the paper is to highlight the trends and characteristics of the use of artificial intelligence (AI) tools in the promotion of goods and services in companies. Thus, the main elements of marketing with the application of AI, the advantages of its use, as well as the directions of development were characterized. An analysis of the main AI techniques used in the promotional mix of companies was conducted. Among the research methods used we can highlight analysis, comparison, synthesis, inference and survey. As a result: i) the directions of using AI for promotional purposes in large, small and medium-sized companies in the Republic of Moldova were highlighted, ii) recommendations for increasing the use of AI were proposed; iii) artificial intelligence structures that should be taken into account in companies' promotional policies were identified. Finally, we can conclude that artificial intelligence should be considered as a modern marketer's assistant, providing the possibility to maximize the profits from promotion costs and streamline the company's activity.

# Keywords

Promotion, artificial intelligence, innovation, organization.

# JEL Classification

M31; M37

# Introduction

The development of civilization, new technologies and changing needs of consumers contribute to changes in promotion techniques, formation of new communication channels and formats of information creation and transmission. Artificial intelligence (AI) is successfully implemented and used in various spheres of human activity.

Artificial intelligence also plays an important role in marketing, especially in marketing communications, promotion, the purpose of which is to offer products and services, companies, personalities to consumers and the general public.

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Researchers Ming-Hui Huang and Ronald Rust define artificial intelligence as "the use of computational machinery to emulate capabilities inherent in humans, such as doing physical or mechanical tasks, thinking, and feeling; the multiple AI intelligence view considers that, rather than treating AI as a thinking machine, AI can be designed to have multiple intelligences, as humans have, for different tasks. Ordered by the difficulty with which AI can address them, there are mechanical, thinking, and feeling AI intelligences" (Huang, 2021).

The specificity of AI lies in its ability to learn from data and adapt independently over time.

Many authors write about the use of Artificial Intelligence in marketing. Thus, E. Polat (2022) studied the practice of using digital marketing in Asian countries. Research by Nesterenko., V., Miskiewicz, R., & Abazov, R. allowed us to determine how marketing communications are developing in the era of digital transformations (Nesterenko *et al.*, 2023).

Qualitative studies of the use of AI in sales by Yang, Yin and Siau, Keng L.(2018), and a study by Bashirzadeh Y. create a general picture for understanding the role of AI in the development of modern marketing communications (Bashirzadeh *et al.*, 2022).

The use of artificial intelligence in marketing, especially in promotion, significantly increases its effectiveness, increasing the presence of brands in the daily lives of users through the use of chatbots, voice assistants, etc.

The use of AI in marketing gives businesses new opportunities, such as process automation, better consumer information and personalized service. At the same time, one should also take into account the limitations of using these technologies, which relate to imperfect legislation, insufficient computing power, and poor-quality data. A competent expert approach to the use of AI can ensure the correct use of AI technologies in promoting companies.

*The purpose of this article* was to study the trends and features of the application of Artificial Intelligence tools in the promotion of goods and services, description and systematisation of AI techniques by elements of the promotion complex.

To achieve the proposed goal, two main tasks were set:

- to determine the main directions of AI-based marketing development, to identify and systematise the AI tools actively used for promotion;
- on the basis of quantitative research, to investigate the use of AI techniques in the promotion of goods and services by Moldovan entrepreneurs.

*The importance of the research* lies in the attempt to systematise the rapidly developing AI services, which will allow more effective creation of selling content.

Effective use of AI in company promotion will allow entrepreneurs in Moldova to save on labour resources and more accurately identify the target audience, make texts more creative, and respond faster to consumer demands.

The novelty and originality of the research lies in the analysis of AI services for marketers and the extent of their use by entrepreneurs from the Republic of Moldova. The opinion of the country's marketers on the prospects of using AI to promote goods and services was revealed.

### **1.** Review of the scientific literature

The concept of artificial intelligence was first discussed following Alan Turing's 1950 work, "Computing Machinery and Intelligence." In this article, Turing posed the question, "Can machines think?" (Turing, 1950). In 1956, John McCarthy introduced the term "artificial intelligence" at the first-ever AI conference at Dartmouth College. John McCarthy defines AI as a set of technological solutions that mimic human cognitive functions (Childs, 2021).

Researchers Ming-Hui Huang and Ronald Rust believe that AI can be designed to have multiple intelligences, as humans have, for different tasks (Huang and Rust, 2021).

Such researchers as Khachaturyan K., Ponomareva S., Koryushov N., (2023) based on the studies of the above-mentioned authors, emphasize the main elements of marketing with the application of artificial intelligence (table no. 1).

N₂	Item	Explanation				
1.	Machine learning	A section of AI that focuses on using data and algorithms to mimic the way humans learn, gradually improving its accuracy. Also worth noting is the automation of business processes.				
2.	In-depth training	A section of machine learning that uses algorithms based on the structure and functioning of the human brain, called artificial neural networks.				
3.	Big data analytics	The process of examining big data (massive, complex data sets that are growing in volume) to uncover information, e.g., hidden patterns, correlations, market trends, that can help companies make smart and relevant business decisions.				
4.	AI platforms	Operate software products capable of analyzing input data and interpreting results and assisting in decision making.				

### Table no. 1. Key elements of marketing with AI

Source: Khachaturyan K., Ponomareva S., Koryushov N. 2023, Iskusstvennyy intellekt v marketinge kak novaya kontseptsiya i biznes-vozmozhnost' dlya povysheniya effektivnosti kompaniy.

While AI is currently used mostly by marketers at large companies, soon the ability to work with AI-based platforms will become a must-have skill for marketers.

Artificial intelligence allows to solve the following tasks in marketing:

• reduces costs: temporal and financial by cutting jobs when implementing chatbots with AI instead of a staff of operators;

• improves marketing effectiveness through exploring large amounts of information and generating hypotheses to personalize content faster and more accurately than humans can (Mirgorodskaya and Ivanchenko, 2021).

Artificial intelligence tools are currently having a significant impact on the development of the following areas of marketing (figure no.1):

1) Interaction with consumers based on the results of the analysis of collected data, studying their behavior: sales orientation and communication management;

2) Application of self-service methods for consumers based on their intellectual support, not used before;

3) Consulting and information support of clients based on the use of artificial intelligence methods (Bronnikov, 2022).



Figure no. 1: Directions for the development of AI-based marketing

Source: Bronnikov, M.A., 2022, Primeneniye iskusstvennogo intellekta v marketinge

Artificial Intelligence-based technologies are changing the approach to creating, promoting and analysing the effectiveness of promoting companies' goods and services. In the 4Ps-based marketing mix, it is the 4th element - promotion - that is most susceptible to AI-based innovative changes.

Basic promotional techniques: advertising, public relations, sales promotion, direct marketing and personal selling remain the priority tools used when companies communicate with their consumers.

However, the approach to the organisation and management of communication channels, the creation of sales texts, and the competences of promotion specialists are changing significantly in the 21st century.

Artificial Intelligence technologies are widely used to:

- advertising campaign development;
- creating sales texts and images;
- sales promotion;
- consumer segmentation and personalisation of advertising messages;
- creating presentations;
- raising consumer awareness;
- customer loyalty growth;
- creating a positive image;
- application of new ways of self-service;
- customer counselling and information support.

Thus, AI platforms can be accessed by advertising, RR, digital marketers, SEO, SMM, event managers and others.

For example, in the creation and broadcasting of advertising messages, AI makes it possible to produce content at the lowest possible cost. There are a large number of services, such as JASPER, which are able to create texts based on data sets of certain topics and analyse similar texts. Experts set keywords, which JASPER analyses, before

creating phrases, paragraphs or articles based on the topic and tone of voice. JASPER can create a 1,500-word article in less than a quarter of an hour, supported in 25 languages (McFarland and Tardif, 2024). AI is capable of suggesting topics for copywriters, interesting to consumers and generating reports.

AdCreative AI is a conversion-focused artificial intelligence that creates high-quality creative ad texts. A marketer should upload their company logo, choose a colour scheme and this platform will offer a wide range of creative ads (McFarland and Tardif, 2024).

An important task of AI applied in promotion programmes is to optimise advertising and work on improving its effectiveness. For example, Google and Facebook have long been using AI in their systems.

Google's AI-powered toolkit, Google Performance Max, is capable of managing ads across all Google sites simultaneously. A specialist only needs to provide information for creative solutions, describe the target audience and make a number of settings. The algorithm independently systematises creatives, selects the best ones, optimises the campaign budget, adjusts the display time and focuses on the target audience (SkillBoxMedia, 2022).

The effectiveness of using Google Performance Max is confirmed by the results of a study Google implemented in 2021 for MoneyMe. Using the GPM toolkit, marketers attracted 22% more conversions than when using classic advertising campaigns. The goal of the campaign was to attract new customers and grow rapidly. As a result, MoneyMe received about \$800 thousand in additional revenue, while the cost per conversion decreased by 20% across the entire account (Tkachenko, 2023).

Direct marketing is making full use of AI-based personalisation services for different types of communications and for different industries. For example, Dynamic Yield is a powerful tool that allows you to segment consumers based on machine learning. Dynamic Yield collects data on consumer behaviour across different digital channels. It provides digital data analytics for personalisation rules: personalised emails, product and content recommendations on website pages, and in-app recommendations. Major ecommerce market players, such as Lamoda, IKEA, Utkonos and others, work with Dynamic Yield (Dynamic Yield, 2023).

Mindbox platforms accumulate user data in one place, linking all communication channels together, which helps professionals to process and send personalised information directly, without intermediary programmers: SMS, Pop Up, email, product recommendations.

Chatbots and voice assistants help to increase the company's recognisability in the information environment of potential consumers, which significantly increases the effectiveness of marketing communications.

In the process of personal selling, sales promotion activities, chatbots help to establish contact with actual and potential customers, increase their loyalty, help optimise the time resources of marketers and operators answering typical questions. Bots help the customer to choose a product, inform about discounts and promotions, collect contact details of users, etc.

Many chatbots are available for free use. You can create them yourself using special software without programming skills. Examples of constructors: Pipe.bot, SAP

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Conversational AI. Chatbots integrate with billing, CRM systems, and allow you to collect data for end-to-end analytics. For example, the Czech car manufacturer Skoda created the Lucy bot based on the Teneo dialogue platform. Lucy helped increase website conversion rates by 400% (Moldova News, 2023).

AI developments stimulate sales by offering customers exclusive services, allowing the formation of a consumer profile, customising the offer with the display of an advertising message for a specific customer. These activities stimulate sales by converting neutral advertising text into a personalised, interesting offer.

Intuitive intelligence allows advertisers to better understand consumers by tracking their reactions to create content that produces better results (Mirgorodskaya and Ivanchenko, 2021). Utilises UpGrow's AI toolkit to grow Instagram followers. UpGrow replaces an entire team of social media marketers by tailoring its approach to specific filters: age, gender, location, language, interests, and others.

GetResponse AI email generator, based on GPT-3.5 technology, is capable of creating compelling email content. GetResponse AI aims to increase email open rates and attract consumer attention.

Plus AI is becoming a useful personal selling tool that marketers can use to create presentations and edit slides using the generative AI in Google Slides. Using this personal presentation creation assistant starts with a request to create a customisable outline, which the artificial intelligence turns it into slides in minutes. You can create multiple variations of different styles for different segments (Newsmaker, 2023).

More than 60 per cent of public relations professionals are already using AI in their work, addressing the following challenges:

- Tracking mentions of the company and its competitors,
- Identifying trends,
- Creation of press releases and articles,
- Audience Engagement,
- Video Content Creation (TopFace Media, 2024).

AI capabilities are constantly increasing, but interest in AI varies from country to country, at least in terms of search data, experts say. Visual Capitalist notes which countries are most interested in generative AI tools, based on data collected by ElectronicsHub over the past two years. According to the data, the Philippines had the highest volume of searches for generative AI tools (5,288), followed by Singapore (3,036) and Canada (2,213). The Republic of Moldova had 182 searches and Romania had 390 searches per month per 100,000 inhabitants in 2023 (Moldova News, 2023).

Thus, various tools, applications based on AI are widely used in the marketing activities of the company, especially in promotion and interaction with consumers at all stages of the purchase decision process. The systematisation of AI tools by different promotion techniques is presented in Table 2.

Promotion techniques AI tools №	Advertisement	PR	Incentivising sales	Direct marketing	Personal sales
1.	JASPER	JASPER	ChatGPT	Dynamic Yield	Plus AI
2.	Google Performance Max	AdCreative AI	Chatbots	Mindbox	ChatGPT
3.	AdCreative AI	Dynamic Yield		UpGrow	SaluteSpeech Bot
4.	Dynamic Yield	Pictory		GetResponse AI	Rytr
5.	Pictory	Scalenut		Pictory	
6.	Scalenut			Scalenut	
7.	ChatGPT	ChatGPT		Ad Copy	
8.	Rytr	Rytr		ChatGPT	
9.				SaluteSpeech Bot	
10.				Rytr	

Source: developed by the authors bazed on data from Dynamic Yield, A. McFarland and A. Tardif, TopFace Media

### 2. Research methodology

This study is exploratory in nature, the directions of AI-based marketing development are identified, AI services that are most effective for the practical activities of marketers are identified and analysed. The authors conducted a review of scientific topics on the use of AI in marketing.

Data analysis, induction, description and interpretation were used in the process of writing the study.

A quantitative study based on a questionnaire survey of Moldovan businessmen determined the popularity of AI services and the intensity of their use by marketers.

The survey was conducted in June-July 2024. The survey utilized a mixed methodology, involving both online and interview-based approaches. The sample was structured according to quotas, and the study captures the perspectives of respondents from central Moldova (specifically, Chisinau municipality) as well as from the southern and northern regions of the country (Comrat and Balti, respectively). The questionnaire consisted of nine questions, including open, closed and scaled items.

The primary objective of this study was to form a representative sample that accurately reflect the regional diversity within Moldova. This methodological approach enabled us to obtain a comprehensive view of AI utilization in business settings across Moldova,

with the conclusions based on both quantitative data and informed opinions from key demographic segments.

### 3. Results and discussions

Companies from the Republic of Moldova are also starting to use AI in their marketing activities, especially in marketing communications. In order to determine the popularity of AI among company managers and marketers, the level of use of AI tools, we conducted a survey of 38 representatives of small and medium-sized businesses.

Businesses participating in the study included: 29 - know what AI is, 9 - do not know (figure no.2).

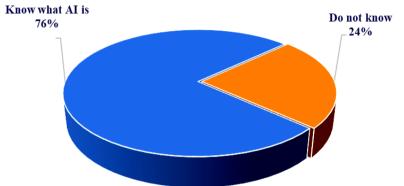


Figure no. 2: Respondents' knowledge about Artificial Intelligence Source: Developed by the authors

Only 17 responded affirmatively to the question 'Have you used AI tools in the marketing activities of your organisations', the rest have not used them yet, although they plan to do so.

Some respondents indicated that while they aware of Artificial Intelligence, they had no plans to adopt it in the near future. The main barriers cited were the substantial investments required for both equipment and personnel training, witch are particularly challenging for small and medium-sized enterprises. Additionally, several specialists observe that AI performs effectively when working with structured data; however, when it comes to processing and analysing, unstructured data, such as text or images, the complexity increases significantly, marking implementation more demanding and less accessible for many businesses.

The specialists who answered in the affirmative use Artificial Intelligence in the directions shown in Figure 3.

AI tools used in the marketing activities of companies have the unique advantage of allowing them to personalise their own marketing and sales strategies based on predictive analytics that provide knowledge of consumer buying habits. The popularity of AI in marketing is due to the ability to process constantly incoming digital data from various sources, which allows businesses to monitor the market, changing consumer preferences and promptly adjust the companies' promotional strategies. For example, marketing plans of such companies as Google and Netflix are developed on the basis of recommendations offered by AI.

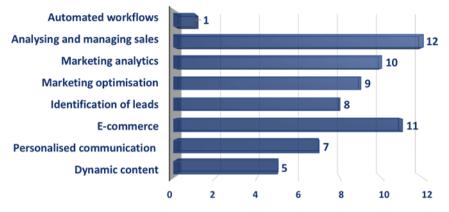


Figure no. 3: Directions for the use of Artificial Intelligence in Moldovan companies

Source: Developed by the authors

The survey results showed that our specialists most often turn to such tools as ChatGPT and Midjourney and participate in the creation of chatbots. Marketers of these companies believe that it is very often possible to use AI in promoting the company's goods and services (weighted average 4.5).

However, some survey participants mentioned that they were not yet able to assess the effectiveness of certain AI techniques as highly as they had initially anticipated. Additionally, some respondents indicated that they lacked the sufficient knowledge and trained personnel to use the fully leverage the potential of AI. This limitation reflects a significant barrier to the successful implementation of AI solutions, particularly in organizations with limited resources dedicated to technological training and development.

Advertising agencies, companies that are actively engaged in promotion, plan marketing budget for technologies related to the use of Artificial Intelligence - 8 companies.

Respondents highly rated the prospects of using AI in the development of effective advertising texts on a 10-point scale: 9.6 out of 10. Most marketers agree with the statement that Artificial Intelligence is becoming a necessary component in the development of marketing for any company (4.4 out of 5).

However, a minority of respondents expressed doubts about the potential of AI in promotional activities, suggesting that its prospects in this area are uncertain. These perspectives underscore the need for continuous dialogue, education, and transparency concerning AI applications. Companies are entrusted with the responsibility to deploy

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AI capabilities thoughtfully and ethically, ensuring that its use aligns with both industry standards and societal expectations.

Interest in digital marketing and AI is growing rapidly among entrepreneurs in Moldova, and the demand for specialists in Internet marketing is on the rise. However, a study by V. Gagauz, (2022) on the adoption of digital marketing by Moldovan companies highlighted that, until recently, digital marketing had seen limited use among these organizations. The increasing public and entrepreneurial interest in AI has further driven the development of digital marketing in Moldova, suggesting a shift towards more innovative, technology-driven business strategies.

Most Specialists believe that the use of AI in company promotion will save on labour resources, offset the shortage of qualified workers, more effectively track market trends, more accurately identify the target audience, make texts more creative, and respond faster to consumer demands.

AI tools are more commonly used in companies involved in the supply of consumer goods or services to clearly target marketing messages, grow consumer awareness, increase customer loyalty, manage inventories, and more.

#### Conclusions

Thus, the research objectives have been achieved, the main directions of AI application in marketing, more precisely in marketing communications of the company have been revealed. The analysis of AI-based services will help marketers to be more easily oriented in their choice to solve their tasks.

The quantitative research based on a questionnaire survey of entrepreneurs revealed the degree of use of AI-based tools in Moldova.

Artificial intelligence can be used in marketing activities by both large and mediumsized businesses and small businesses. While large businesses are more active in implementing AI in their activities, having more resources, investing in development, small businesses can use tools without programming skills, ready-made tools and approaches, with predictable costs, already tested by large companies.

In Republic of Moldova, small and medium-sized businesses are still less active in implementing AI than foreign companies and well-known brands. Small businesses should more actively implement AI in their marketing activities to improve their competitiveness and gain a more favourable market position. Business leaders should adapt more quickly to the new realities offered by AI.

The development of AI-based technologies will continue, which will free marketers from routine activities, save time resources and direct their knowledge into the field of creativity. We believe that fears of AI replacing human activity are exaggerated, as AI is limited by the tasks at hand, and there are no boundaries in human thinking. AI is good at creating small texts, but voluminous advertising materials require human correction.

The rapid growth of AI in digital marketing is raising significant ethical and legal concerns. AI relies on an information openness strategy, while companies seek to protect their proprietary data and algorithms. The primary focus in AI-based promotion is ensuring compatibility with increasingly stringent privacy regulations.

Inappropriate use of AI can lead to several issues, such as privacy violations, deepfake content, erroneous decisions based on inaccurate data, and socio-economic disparities

among various population segments. It is essential to recognize that AI is merely a tool; the responsibility for its application lies with human decision-makers.

Thus, marketers should consider artificial intelligence structures in their promotional policies. It is necessary to consider artificial intelligence as an assistant to the marketer, providing an opportunity to maximise the return on promotion costs and a method of testing and implementing creative ideas of marketing specialists.

This study aims to initiate a series of investigations into the dynamic implementation of AI tools in modern business practices within the Republic of Moldova. Although limited by a small sample size, this preliminary exploration offers insights from local marketers, providing foundational directions for future research on AI applications in business. These findings may support the development of new AI tools tailored to improve marketing communications. In the near future, Moldovan companies must address the challenges of AI usage to implement innovative and ethical marketing strategies.

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