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FEATURES OF AGRICULTURAL MACHINERY PROMOTION IN THE ONLINE ENVIRONMENT

ОСОБЛИВОСТІ ПРОСУВАННЯ СІЛЬСЬКОГОСПОДАРСЬКОЇ ТЕХНІКИ У ОНЛАЙН СЕРЕДОВИЩІ

This article examines the peculiarities of creating an advertising message in the context of the digital transformation of the agricultural sector; particularly in the agricultural machinery sales segment. It emphasises the change in communication channels and consumer behavioural patterns when using the online environment. Based on an analysis of empirical data, the article outlines the decision-making process of the target audience, from initial information gathering to final product evaluation and interaction with dealers. It reveals the role of search engines, specialised trading platforms (OLX, Agronetto and AgroRia), social networks (Facebook) and video content (YouTube) in forming consumer choice. The article demonstrates that the effectiveness of an advertising message largely depends on its relevance to the current stage of the consumer's information-seeking behaviour and on the message being presented clearly, visually and functionally. The proposal is a universal concept for building an advertising message that adapts to the online environment and the way consumers interact with information channels. A communication model for interacting with the target audience has been developed and detailed using a promotional channel scheme. The results obtained are of practical importance for designing effective B2B advertising campaigns in a digital environment.

Keywords: advertising message, online promotion, agricultural marketing, consumer behavior, digital communication channels, agricultural machinery, decision-making.

У статті досліджено особливості формування рекламного звернення в умовах цифрової трансформації аграрного сектору, зокрема в сегменті продажу сільськогосподарської техніки. Акцент зроблено на зміні каналів комунікації та поведінкових моделях споживачів у контексті використання онлайн-середовища. На основі аналізу емпіричних даних окреслено послідовність етапів прийняття рішень представниками цільової аудиторії – від первинного інформаційного пошуку до фінального огляду техніки та взаємодії з дилерами. Розкрито роль пошукових систем, спеціалізованих торговельних платформ (OLX, Agronetto, AgroRia), соціальних мереж (Facebook) та відеоконтенту (YouTube) у процесі формування споживчого вибору. Показано, що ефективність рекламного звернення значною мірою залежить від його відповідності поточному етапу інформаційної поведінки споживача, а також від наявності чіткої, візуально орієнтованої та функціональної подачі повідомлення. Результати дослідження свідчать про високу загальну чутливість представників цільової аудиторії до формату і концепції рекламних звернень. Обґрунтовано доцільність персоналізованого та функціонально орієнтованого підходу до розроблення рекламних звернень на ринку B2B. Ключовими факторами ефективності таких звернень є: емоційно-нейтральний стиль, чітка структура повідомлення та висвітлення практичної цінності продукції. Встановлено, що найбільш ефективні повідомлення повинні: поєднувати візуальні приклади використання техніки в реальних умовах; містити елементи порівняння з аналогами (наприклад, за ціною, потужністю або витратою палива); акцентувати на перевагах післяпродажного сервісу та можливості прямого контакту з менеджером або дилером. Запропоновано універсальну концепцію побудови рекламного звернення, що адаптується до онлайн-середовища та логіки споживчої взаємодії з інформаційними каналами. Розроблено комунікаційну модель взаємодії з цільовою аудиторією, деталізовану за допомогою схеми каналів просування. Отримані результати мають практичне значення для проєктування ефективних B2B-реklamних кампаній у цифровому середовищі.

Ключові слова: рекламне звернення, онлайн-просування, аграрний маркетинг, поведінка споживачів, цифрові канали комунікації, сільськогосподарська техніка, прийняття рішень.

Problem statement. The agricultural machinery market is one of the main sectors of the Ukrainian economy. The vast majority of agricultural enterprises in the process of their activities use specialized machinery, in particular tractors, for tillage and other tasks. As a result of the full-scale war, the tractor market in Ukraine has undergone significant changes, in particular, sales figures have sharply decreased, while supply has increased. Representatives of the target audience began to more carefully study information about new models of machinery using the Internet. This led to the need to use online communications to attract consumers. These aspects determine the importance of analyzing the features of promoting goods in the online environment.

Analysis of recent research and publications. Ukraine has recorded a significant increase in the level of Internet access – from 67.7% in 2021 to 82.4% in 2024 [1]. This trend indicates changes in the behavioral patterns of citizens. According to a 2019 study, approximately one in eight Internet users belongs to the agricultural sector [2]. This creates a basis for reviewing and adapting marketing strategies in accordance with new consumer demands. The effective implementation of a marketing strategy directly depends on the quality and structure of information flows that form the basis of marketing communications. In scientific and applied literature, an approach is widespread according to which communication interaction tools form a promotion complex, which is a key element of the overall marketing complex.

In this context, promotion is considered as any form of marketing communications used by a company to inform the target audience, create a positive image of the company, remind about products or services and stimulate demand for them [3]. This approach involves the integration of both traditional and digital communication tools into a single system of influence on the consumer.

According to scientific research, the process of digitalization in the agricultural sector encompasses not only production activities, but also transforms communication strategies, sales channels and approaches to brand formation [4]. In the context of digital transformation, traditional tools for interacting with the target audience – in particular, personal meetings, participation in exhibition and fair events, print advertising – demonstrate a decrease in efficiency compared to the latest digital tools. These include targeted advertising in social networks, content marketing, search engine optimization (SEO) and mechanisms for paid promotion in search engines. In this context, the advertising campaign occupies a central place in the digital promotion system, performing the function of an integrator of communication channels, marketing influence tools and an indicator of the effectiveness of interaction with target consumer segments in the online environment.

According to the definition of Myronov Yu.B. and Kramar R.M., an advertising campaign is a complex of interrelated activities united by a common goal, which are implemented over a certain period of time and complement each other [5]. Such a holistic structure ensures targeted audience coverage and consistent formation of communication impact.

The practical significance of advertising in the process of managing consumer behavior is emphasized by its ability to initiate feedback and form a reaction from the consumer [6]. In this context, an advertising campaign serves as a tool for targeted communication, focused on a specific market segment, and is an integral part of achieving the strategic and tactical goals of the enterprise.

Thus, an advertising campaign is a systematic set of measures that are coordinated in terms of purpose, time of implementation and the logic of informational impact on the consumer. In contrast, an advertising appeal is the main message sent by an enterprise and may have its own purpose. In particular, informational, image, reminder or aimed at forming a positive impression of a certain product [7].

In the process of developing an advertising appeal, a wide range of methodological tools are used that contribute to the generation of ideas, the formation of the content of the message and the consideration of the specifics of the target audience. In particular, Lukyanets T.I. outlines a number of common creative approaches, including the brainstorming method, synectics and the method of associations. At the same time, the researcher emphasizes the need for prior direct contact with representatives of the target audience in order to identify the features of their behavioral reactions and perception of advertising materials. The author pays special attention to the stage of testing the appeal, defining it as “the most important component of an advertising campaign” [8], which ensures verification of the effectiveness of the communication impact before the start of large-scale placement.

Within the framework of the implementation of an advertising campaign, a wide range of communication channels is used to broadcast advertising messages, ensuring coverage of various segments of the target audience. Thus, Bozhkova V.V. and Melnyk Yu.M. focus on traditional mass media – radio, television and the printed press, – while supplementing this list with more modern means of distributing advertising information. In particular, the authors highlight such media as audio-visual systems in public places, POS materials, souvenir products, promotional campaigns and other forms of interactive interaction with the audience [9].

The identified channels for the distribution of advertising messages are complemented by the rapid growth of the use of digital technologies, which is due to the processes of internationalization and informatization of the business environment at the global level [10]. In this context, a stable trend towards increasing revenues of leading digital platforms, such as Google and Facebook, from advertising activities is recorded. This, in turn, indicates an expansion of the circle of enterprises that integrate online communication channels into their marketing strategies and recognize their effectiveness in reaching target audiences.

Formulating the purposes of the article. The purpose of the article is to study the main trends in the agricultural machinery market and determine the features of promoting new products in the online environment.

Methodology. The data were obtained through a combined research process that involved the use of primary and secondary information. Existing studies, works of authors in the field and scientific publications presented in open sources were analysed. We also conducted our own field research. In-depth interviews with 8 farm owners and 8 tractor drivers were conducted to form an understanding of the specifics of product selection. Also, the developed concepts of advertising messages were tested. Qualitative data was obtained, which is the basis for the development of relevant recommendations.

Presentation of the main research material. The agricultural machinery market in Ukraine has undergone significant changes as a result of the war. Thus, in 2021, 8,800 new tractors were sold, including 64% of the equipment produced by the Minsk Tractor Plant, located in Belarus [11]. After the start of the full-scale invasion, the goods of the

country supporting the aggressor are boycotted by Ukrainian consumers. Accordingly, we can note a significant increase in demand for similar tractors, in particular in the categories: 45–100 horsepower, where MTZ occupied more than 95%; 101–150 horsepower, with the share of MTZ tractors, about 36% [11]. Thus, as a result of restrictions on the import of Belarusian tractors and the complication of its own production in wartime, Ukraine began to purchase equipment from China in larger quantities. According to the research company Pro-Consulting, in 2023, 7,042 tractors were imported from this country [12].

At the same time, in recent years, there has been a noticeable increase in the number of Chinese manufacturers supplying their products to Ukraine. Depending on the power of the equipment, the brands presented may differ. However, among the companies with a wide range and the largest share in the Ukrainian market, we can identify: “Lovol”, “YTO” and “Zoomlion” [13]. This causes increased competition between different manufacturers and provides the consumer with a wider choice within the same price range.

In addition, significant import dependence in the tractor segment was observed even before the start of the full-scale war. From 2017 to 2022, the average share of tractor imports, calculated as the ratio of import indicators to domestic production in monetary terms, was 96,68% [14]. This indicates the weak development of Ukrainian industries in the relevant direction, which is complicated by the destruction of infrastructure as a result of military operations. In turn, existing state production stimulation programs are unable to fully create favorable investment conditions for the opening of new companies. This situation forms the basis for the development and expansion of the dealer network of foreign companies. In turn, this leads to increased competition in the industry.

Yaroslav Navrotsky, a researcher at the National Research Center “Institute of Agrarian Economics”, noted that with the beginning of a full-scale war, the share of used and cheaper equipment in total imports increased. Due to limited purchasing power, consumers began to pay less attention to the quality of tractors [15]. This causes demand to flow from leading manufacturers to cheaper Chinese-made equipment. To determine market dynamics, the number of imported tractors was analyzed for the period from 2019 to 2024. The results of the analysis are presented in Figure 1.

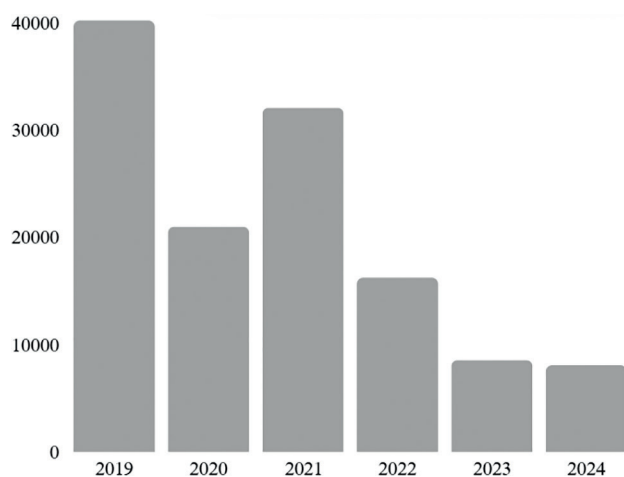


Figure 1. Import of tractors to Ukraine in 2019–2024

Source: compiled by the author based on data from [14–15]

The figure shows that over the past 6 years, there have been several major factors that have had a significant impact on the market. The decline in imports observed in 2020 was caused by the shortage of microchips that arose as a result of the COVID-19 pandemic. In addition, the massive increase in concerns about the consequences of the disease and quarantine restrictions had a negative impact on international relations and, in particular, consumer willingness to purchase.

However, since 2022, the main factor that led to a reduction in the market volume by almost 2 times is the full-scale war. The decline in imports in different categories of tractors occurred unevenly:

- by 24,8% the indicator decreased for equipment with a capacity of 35 to 50 horsepower;
- by 64,6% in the segment of equipment with a capacity of 50 to 100 horsepower;
- and by 53,3% among tractors with a capacity of 100 to 175 horsepower [15].

After analyzing the general market trends and external factors influencing the changing situation in the agricultural machinery segment, in particular tractors, primary information was collected. At this stage, the behavioral characteristics of the target audience in the decision-making process regarding the purchase of equipment were studied.

It was found that when choosing a tractor, consumers are guided by a number of key technical parameters, including: price characteristics, engine power, compatibility with existing agricultural equipment, fuel consumption indicators, as well as the weight and size of tires. The responses received were systematized, summarized and analyzed. The summarized results are shown in Figure 2.

In order to form an idea of the role of online channels in the decision-making process regarding the purchase of agricultural machinery, as well as to empirically confirm the relevance of the issue, a survey of the target audience was conducted using a relevant list of questions.

The results obtained indicate that the use of the Internet in professional activities by managers of agricultural enterprises is multidimensional. In particular, equipment operators



Figure 2. Features that are important to consumers when choosing a tractor

Source: developed by the author

actively watch video materials from colleagues in order to independently solve technical problems related to the operation of tractors. In contrast, enterprise owners more often use the Internet to monitor price offers, analyze market conditions, and study the practical experience of other industry participants in order to adjust their own management decisions.

The procedure for searching for equipment has common features for all respondents and, as a rule, includes the use of search engines to form an initial query, followed by a detailed study of offers on specialized platforms such as OLX, Agronetto, AgroRia, and Traktorist.ua.

After the initial familiarization with the tractor models available on the market and their price characteristics, consumers move on to the stage of targeted search for individual units of equipment in order to deepen information on technical parameters, purchase conditions and operating experience. The YouTube platform is particularly popular at this stage, as it serves as a source of visual content for practical assessment of technical characteristics.

Owners of agricultural enterprises, in turn, prefer specialized information resources of an agricultural nature that publish industry news, equipment reviews, and expert materials. To clarify individual product characteristics, payment or delivery terms, respondents indicate contacting official dealers.

As part of the study, owners were asked a clarifying question about the possibility of making a decision to purchase a tractor solely through online communications. As a result, 7 out of 8 respondents indicated the need for a personal inspection of the equipment and direct contact with the manager before making a decision. At the same time, one of the participants reported successful experience of remotely purchasing equipment based on consultations with a dealer and in-depth study of information in online sources.

Machinery operators were asked about the main channels they use to learn about agricultural machinery. The answers indicate the active use of YouTube video hosting and Facebook social network, where specialized pages with relevant thematic content are located.

Thus, despite the widespread use of digital communication channels at all stages of the search and evaluation of equipment, the process of making a final purchase decision in the agricultural sector is still characterized by a high level of dependence on offline elements, such as physical inspection of equipment and interpersonal interaction with dealers. This phenomenon can be characterized as a communication barrier (digital trust barrier), typical for sales of high-value products in the B2B market. In this case, video content plays a key role in creating initial interest and reducing information asymmetry between the manufacturer (or seller) and the potential buyer, serving as an effective tool for engagement in digital communication channels.

In order to assess the impact of advertising campaigns on consumer behavior, an analysis of the perception of advertising appeals by representatives of the target audience was carried out. The survey results showed that all respondents note the presence of advertisements related to the sale of agricultural machinery and are active in interacting with them.

The analysis revealed that certain creative concepts demonstrate a higher level of consumer engagement, more effectively attracting their attention. Based on the respondents' responses, a comparative assessment of the level of interest in different advertising formats and approaches was carried out. The concepts most attractive to users are systematized and summarized and presented in Figure 3.

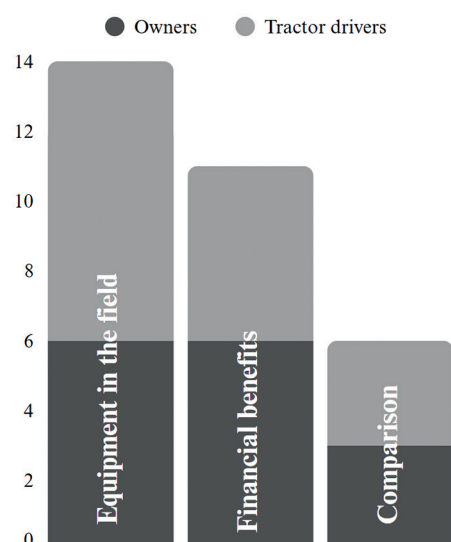


Figure 3. Concepts of advertising messages that attract attention

Source: developed by the author

Respondents noted that they most enjoy practical demonstrations of equipment in real field conditions. Also, attention is drawn to the financial benefits emphasized in advertising. The respondent recalled an appeal from a competitor company that emphasized the possibility of obtaining individual financing conditions. Customers could purchase equipment under the "50 on 50" program, paying the last installment 6 months after purchase. Instead, some of the participants pay attention to advertising appeals that are based on comparisons with other tractors, in particular models of Soviet equipment.

The data obtained on the effectiveness of advertising campaigns in the online environment was confirmed by the performance indicators of the company that commissioned the study. It was determined that search advertising in Google Ads has a significantly higher interaction rate, which indicates its relevance to the subject of the search. However, it is significantly more expensive than promotion on Facebook and Instagram. The advertising campaign on Prom has a high efficiency rate, which, at a low cost per click, interests the consumer. However, respondents did not mention interaction with this marketplace, which may indicate that the advertising campaign is directed at other segments. The results of the analysis for the last 6 months are presented in Table 1.

After that, specialized sites where the studied company promotes advertisements of the corresponding product positions were analyzed. The analysis was carried out for tractor models NLX 1304 and NLX 1404. The results for the last 6 months are given in Table 2.

The results show that OLX has the best performance indicators among the platforms used. At the same time, the number of views indicates a high presence of representatives of the target audience on the platform.

Taking into account the results of the research and the specifics of the target audience's behavior in the digital environment, a universal concept for building an advertising appeal, adapted to the specifics of promoting agricultural machinery in the online space, is proposed. The concept is based on the stages of consumer behavior and the principle of gradual involvement.

Table 1

Performance indicators of advertising campaigns in Google Ads, Facebook Ads and Prom

Metrics	Unit of measurement	Metric values		
		Google Ads	Facebook Ads	Prom
Number of clicks	Units	13673	46731	15788
CTR	%	24,46	1,53	11,2
Average CPC	Hryvnia	15,7	6,72	1,53
Conversion cost	Hryvnia	540,1	319,6	450,2

Source: developed by the author. (CTR=Click-Through Rate; CPC= Cost Per Click)

Table 2

Performance indicators of advertising campaigns on specialised platforms

Metrics	Unit of measurement	Metric values		
		OLX	AgroRia	Agronetto
Views	Units	10441	3322	4530
Opening phone numbers	Units	63	17	27
Sent messages	Units	10	1	1
Conversion cost	Hryvnia	703,6	1353,8	210,5

Source: developed by the author

1. **Market orientation stage.** At the initial stage, a potential buyer conducts a general market survey in order to form an idea of the available models, their technical parameters and price range. For this, the Google search engine is usually used, however, search queries are of a general nature and rarely include mention of the brand, model or dealer. Queries such as "120 hp tractor price" or "modern tractors for medium-sized farms" reflect the consumer's previous, as yet unstructured need.

2. **Stage of detailed familiarization with market offers.** For a deeper acquaintance with available equipment options, the consumer turns to specialized online platforms, such as OLX, Agronetto, AgroRia. These resources provide a large selection of new and used equipment in the selected segment. At this stage, the key task of the advertising appeal is:

- to capture attention through clear visualization and headlines;
- to present a UTP (unique selling proposition);
- to provide quick access to key information (price, condition, technical specifications, photos, delivery or leasing conditions).

3. The stage of specifying the need (narrowing the choice). After familiarizing themselves with the assortment, the consumer forms a list of priority models, and his information behavior becomes more targeted. At this stage, queries to search engines already include specific names of brands and models ("YTO LX 1304-A, technical specifications", "Changfa CFG 1404, technical specifications"). At the same time, interest in official dealer websites, reviews, review videos and information materials confirming the seller's reputation is increasing.

4. **The stage of initial interaction with the manager.** At the final stage of the information search, the first contact with a company representative takes place – via chat, feedback form or phone call. The purpose of this interaction is to clarify key characteristics, check the availability of the product, and discuss the terms of purchase or delivery.

5. **The stage of final selection and decision-making on the purchase.** The next stage after forming a list of potentially attractive models is a detailed analysis of a specific piece of equipment, which the consumer considers as the main one. At this stage, an important source of information becomes the feedback of real users, in particular

tractor owners who already have experience of operating the relevant model.

Of particular value to the consumer is content that demonstrates the operation of equipment in real field conditions, as well as comparative reviews that highlight the advantages and disadvantages of a particular model in operation. Information search is carried out mainly using the Google search engine, with the involvement of news resources, specialized forums, video reviews and user pages on social networks.

The vast majority of respondents noted YouTube as the main platform for obtaining visual independent content, as well as Facebook as a source of comments, discussions and personal experiences of other consumers.

After completing the online analysis and narrowing the choice to 1–2 models, the consumer proceeds to a direct inspection of the equipment at the dealer's site. A personal inspection and live communication with a company representative are the final stage of the purchasing decision-making process and, as a rule, precede the final agreement on the terms of the deal.

Taking into account the described sequence of decision-making stages, a system model of communication interaction with the consumer was developed, which takes into account both information needs at each stage and the corresponding promotion channels. The model involves the phased formation of interest, the provision of relevant content, decision support and the creation of conditions for the transition to conversion. A detailed diagram of promotion channels and interaction with the target audience is presented in Figure 4.

To take into account the new model of tractor by the consumer, during the initial analysis, it is advisable to place an ad on specialized platforms. In particular, the most common platforms mentioned by respondents are: OLX, Agronetto and AgroRia. A detailed description of the technical characteristics and features of the tractor will make it possible to simplify the search process for users. To ensure a higher position of the ad in the search results within the platform, it is necessary to purchase an advertising package.

When choosing a brand and model, consumers use the Google search engine and are ready to interact with the dealer's resources. Given the lower competition within

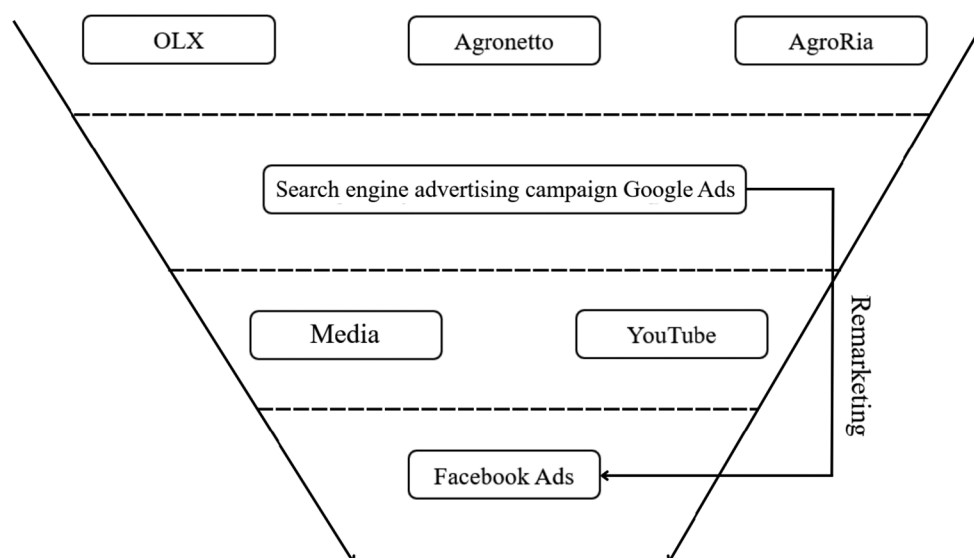


Figure 4. Recommended promotion channels

Source: developed by the author

search queries, it is advisable to use a search advertising campaign. The issue is carried out according to the auction principle, the cabinet with higher rates per click gets a better position and has a greater chance of being noticed by the consumer. The search advertising campaign should direct the user to the tractor page on the dealer's official website.

When analyzing a specific unit, consumers study the features of the model and feedback from owners of equipment in more detail. To attract users at this stage of decision-making, it is necessary to use the media and YouTube. These channels will be used when conducting targeted searches. Video content and authoritative sources of information will help convince the consumer of the advantages of the new tractor.

At the same time, at the stage of consideration and comparison of options, the user will receive similar offers from competitors. This causes the risk of oversaturation with the offer and leads to the loss of a potential buyer. Instead, to minimize the impact of this factor, it is necessary to use channels that contain a reminder effect. In particular, a separate audience will be formed in Facebook Ads, where users who visited the product page will be automatically added. Advertisements will be displayed to potentially interested people. This will help increase the effectiveness of the campaign.

Conclusions. The results of the study indicate a high overall sensitivity of the target audience to advertising

messages related to the sale of agricultural machinery. The absolute majority of respondents not only notice the relevant ads, but also actively interact with them, which indicates a sufficient level of coverage and relevance of the selected communication channels. However, significant differences in the effectiveness of different concepts of advertising messages were found. The greatest interest was aroused by messages that:

- combined visual examples of the use of equipment in real conditions;
- contained elements of comparison with analogues (for example, by price, power or fuel consumption);
- emphasized the advantages of after-sales service and the possibility of direct contact with a manager or dealer.

These results indicate the feasibility of a personalized and functionally oriented approach to developing advertising appeals aimed at the B2B market. An emotionally neutral style, a clear message structure, and highlighting the practical value of the product are key factors in the effectiveness of such appeals.

Thus, in further advertising activities, it is advisable to focus on adapting the content to the needs of various representatives of the purchasing center (owners, operators, technicians, financial managers), as well as on a balanced combination of informativeness and visual persuasion within each message.

References:

1. Kemp S. Digital 2025: Ukraine. Data Reportal. Available at: <https://datareportal.com/reports/digital-2025-ukraine>
2. Kozhen vosmyi korystuvach Internetu v Ukraini – ahraryi [Every eighth Internet user in Ukraine is an agrarian]. Kurkul. Available at: <https://kurkul.com/news/18265-kojen-vosmyi-korystuvach-internetu-v-ukrayini--agraryi> [in Ukrainian]
3. Dibrova T. G., Solntsev S. O., Bazherina K. V. (2018). Reklamnyi menedzhment: teoriia i praktyka [Advertising Management: Theory and Practice]. Kyiv: Igor Sikorsky Kyiv Polytechnic Institute, 318 p. [in Ukrainian]
4. Bondarenko V., Omelianenko O. (2024). Tendentsii rozvytku ahrarynoho sektoru ekonomiky ukrainy v konteksti rozvytku tsyfrovoyi marketynhovoї diialnosti [Trends in the development of the agrarian sector of the Ukrainian economy in the context of the development of digital marketing activities]. *Economy and society*. № 59. DOI: <https://doi.org/10.32782/2524-0072/2024-59-163> [in Ukrainian]
5. Myronov Y. B., Kramar R. M. (2007). Osnovy reklamnoi diialnosti [Fundamentals of advertising activity]. Drohobych: Posvit, 108 p. [in Ukrainian]
6. Dybchuk L. V., Holovchuk Y. O., Pchelyanska H. O. (2021). Klasyfikatsiia reklamy ta yii praktychne znachennia u pidvyshchenni efektyvnosti upravlinnia povedinkoiu spozhyvachiv [Classification of advertising and its practical significance in improving the

efficiency of consumer behaviour management]. *Bulletin of Khmelnytsky National University. Economic Sciences*. T. 2, № 6 (2). P. 204–210. [in Ukrainian]

7. Polyakov V. A., Romanov A. A. (2015). Rozrobka i tekhnolohii vyrobnytstva reklamnoho produktu [Development and production technologies of an advertising product]. 502 p. [in Ukrainian]

8. Lukianets T. I. (2003). Reklamnyi menedzhment [Advertising management]. Kyiv: KNEU, 440 p. [in Ukrainian]

9. Bozhkova V. V., Melnyk Y. M. (2009). Reklama ta stymuliuvannya zbutu [Advertising and sales promotion]. Kyiv: Centre for Educational Literature, 200 p. [in Ukrainian]

10. Deynega O. V., Deynega I. O. (2023). Suchasni trendy reklamnoi diialnosti rynkovo-orientovanykh pidpriemstv [Modern trends in advertising activities of market-oriented enterprises]. *Transformational economy*. № 1 (01). P. 15–20. [in Ukrainian].

11. Oleh Nesterov. Rynok traktoriv 2021: novyi rekord, popyt na "velykykh" i problemy z sertyfikatsiieiu [Tractor market 2021: a new record, demand for big ones and problems with certification]. Available at: <https://agroportal.ua/blogs/rinok-traktoriv-2021-noviy-rekord-popit-na-velikih-i-problemi-z-sertifikatsiieiu> [in Ukrainian].

12. Rynok traktoriv v Ukraini: zrostannia postachannia z Kytaiu [Tractor market in Ukraine: growth of supplies from China] *Pro-Consulting*. Available at: <https://pro-consulting.ua/ua/pressroom/rynok-traktorov-v-ukraine-rost-postavok-iz-kitaya> [in Ukrainian].

13. Traktory z pidnebesnoi: katehoriia 100+ [Tractors from China: category 100+] *Offer*. Available at: <https://propozitsiya.com/ua/traktory-z-pidnebesnoi-kategoriya-100> [in Ukrainian].

14. Analiz rynku silskohospodarskoi tekhniki v umovakh povnomasshtabnoi viiny [Analysis of the agricultural machinery market in a full-scale war] *Diia Business*. Available at: <https://business.diia.gov.ua/analytics/research/Analysis-of-the-agricultural-machinery-market-in-conditions-war> [in Ukrainian].

15. V 2022 rotsi v Ukraini znachno skorotyvsia rynek silhosptekhniki [In 2022, the agricultural machinery market in Ukraine shrank significantly] *Superagronom.com*. Available at: <https://superagronom.com/news/17777-v-2022-rotsi-v-ukrayini-znachno-skorotivsya-rinok-silgospstekhniki> [in Ukrainian].

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