PROMOTION OF ECOLOGICAL PRODUCTS THROUGH THE APPLICATION OF DIGITAL MARKETING IN THE REPUBLIC OF MOLDOVA

Olga SÂRBU, PhD, associate professor
ORCID iD: https://orcid.org/0000-0001-6333-0101
Moldova State University, Republic of Moldova
olga.sarbu@usm.md,

Abstract: În condițiile contemporane, marketingul digital devine un element central în promovarea produselor ecologice, sprijinirea dezvoltării durabile a întreprinderilor. În Republica Moldova, unde dezvoltării durabile și protecției mediului s-a atras o atenție sporită, întreprinderile locale au început să utilizeze instrumente digitale pentru a educa consumatorii și a îmbunătăți percepția publică asupra produselor ecologice. Acest articol examinează rolul marketingului digital în promovarea sustenabilității corporative prin metode precum optimizarea motoarelor de căutare, publicitatea în rețelele sociale și campaniile de marketing prin e-mail. Studiul include o analiză a inițiativelor din Republica Moldova și a impactului acestora asupra comportamentului consumatorilor. Rezultatele arată că marketingul digital contribuie la creșterea vizibilității produselor ecologice, la sensibilizarea publicului și la încurajarea consumului responsabil.

Keywords: digital marketing, sustainable development, ecological production, marketing tools, consumers.

In the context of the development of intellectual capital and changing consumer behavior, against the backdrop of the expansion of information and communication technologies, digital communications and electronic data exchange systems, the marketing and management systems of enterprises are undergoing significant transformations. Digital marketing has established itself as an essential component in the evolving digital economy. The evolution of digital marketing as an independent tool represents a natural consequence of progress in the field of marketing. Although pinpointing the exact moment of its emergence and identifying its early adopters is challenging, its importance is undeniable, making it one of the most dynamic trends in contemporary society.

In the context of the accelerated development of information and communication technologies, digital marketing is becoming an essential component of marketing activities at both macro and micro levels. This is confirmed by strategic documents, such as the Digital Transformation Strategy of the Republic of Moldova for 2023-2030. Within this strategy, it is emphasized that the main objective of the development of informatization in the Republic of Moldova is to improve the conditions for the transformation of various areas of human activity under the influence of information and communication technologies. Key directions include strengthening the digital economy, developing the information society and optimizing e-government in the Republic of Moldova [1].

Currently, an increasing number of new opportunities in digital marketing are emerging in the market. This is due to the large number of customers who favor those companies that are highly developed in the digital format. Thus, the phenomenon of digital marketing is most relevant and effective in business development. Digital marketing offers a wide range of tools for delivering marketing information to target audiences through modern information technologies. At the same time, it offers businesses the opportunity to conduct timely analysis of market conditions and establish feedback with consumers [2]. Digital marketing tools can be used on a very limited budget, which is particularly relevant for small businesses. Globally, the traditional economy is gradually losing ground, while the digital economy is gaining momentum, providing significant benefits to both countries and businesses. The digital economy is the accelerator of the socio-economic life of society in the modern world and it is the economy that can rapidly increase a country's GDP.

Sustainable development is a global priority and in the Republic of Moldova, this concept is starting to take root in the business sector, especially for organic products. Over the last two decades, our country has been increasingly involved in the international green movement as more and more organic products are produced, exported and consumed. It should be emphasized that the shift towards

eco-friendly production holds a strategic position not only in the agricultural sector but also within the national economy as a whole. However, the development of the organic sphere is taking place under conditions of uncertainty for both producers and consumers of organic products, as it requires an improved system of scientific-theoretical justification and regulation. First of all, there is the issue of basic definitions and concepts in the field of production, circulation, labeling, consumption and legislative support of the organic sector.

In a digitalized era, digital marketing provides local businesses with a set of tools to reach and educate consumers about green products and services. Digital marketing is an effective consumer communication tool that is implemented through various digital channels [3]. At the same time, digital marketing does not only materialize in online channels, but also in offline channels, in the form of links to electronic resources, QR codes, etc. It is also welcome that when promoting green products, it is also good to offer the possibility not only to familiarize oneself with the existing products, but also to place an order online.

At both global and local level, digital marketing plays a crucial role in promoting green products and sustainable business development in the Republic of Moldova. The adoption of digital strategies enables companies to reach a wider audience and increase consumer awareness about the importance of sustainable choices. By utilizing digital channels such as social media, websites, and email marketing, companies can communicate sustainability values and the benefits of eco-friendly products to consumers, thereby stimulating demand. In Moldova, where environmental awareness is on the rise, digital marketing fosters direct interaction with consumers and the development of online communities dedicated to sustainability. This approach not only supports sales but also helps educate consumers by promoting responsible and sustainable lifestyles. Digital marketing thus becomes an important tool to stimulate the green economy and promote a culture of environmental responsibility in the Republic of Moldova.

In the Republic of Moldova, small and medium-sized businesses producing and marketing organic products face challenges related to limited resources and international competition. Digital marketing can overcome these obstacles by creating effective campaigns that attract consumers and educate them on the importance of responsible consumption. Internet access and increased use of social networks also provide opportunities for companies to expand their market and interact directly with their target audience.

To assess the influence of digital marketing on the promotion of eco-friendly products in the Republic of Moldova, the research involved an analysis of the specialized literature on digital marketing and sustainable development, as well as the experiences of companies in the Republic of Moldova that use digital marketing to promote their eco-friendly products. In the process of conducting the research, the following methods were also used: collection and synthesis of materials, systematization, comparative analysis and review of the main development trends, statistical methods, cause-effect correlation.

RESULTS AND DISCUSSION

As digital technologies develop, their integration into organizational performance management systems becomes essential. Businesses and digital technologies influence each other's evolution, which requires on the one hand the alignment of digital technologies with the needs of the organization in order to provide relevant data to stakeholders, including employees, and on the other hand the need for employees to be able to use these technologies effectively [4]. This capability is crucial to gain a competitive advantage and to best meet customer needs and expectations. Digital technologies offer multiple possibilities of use, and in this context, synthesizing and analysing data in an accessible format is becoming increasingly important. The convergence between marketing and digital communication is becoming increasingly relevant, leading to the consolidation of digital marketing as a distinct field [5].

Digital marketing is an essential contemporary tool for promoting green production, facilitating fast and efficient access to target audiences interested in sustainability [6]. Through digital platforms, companies can communicate the benefits of green products, using advanced segmentation techniques to reach environmentally conscious consumers. Digital marketing also allows campaigns

to be monitored in real time and adjusted according to consumer feedback, thus increasing the effectiveness of promoting eco-friendly products. This approach supports both increasing the visibility of organic production and educating the public on the importance of sustainable consumption.

Organic agriculture in the Republic of Moldova has significant potential due to its natural resources and fertile soils, which provide optimal conditions for sustainable farming. In the context of climate change, the introduction of organic farming methods is necessary to protect fertile soils from degradation and ensure long-term productivity. Organic farming contributes not only to soil conservation, reducing greenhouse gas emissions, but also to the efficient management of natural resources, thus providing a sustainable solution to the climate problem. In this way, Moldova can become a competitive player on international markets, satisfying the growing demand for organic products while supporting environmental protection and biodiversity conservation.

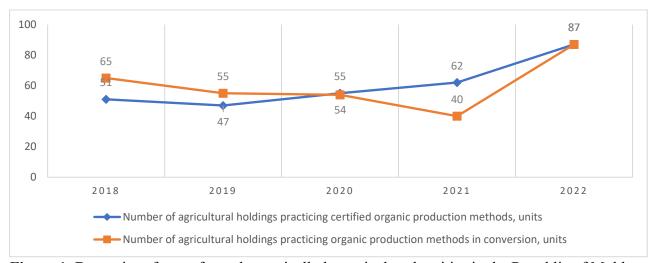


Figure 1. Dynamics of areas farmed organically by agricultural entities in the Republic of Moldova, units

Source: based on NBS data [7]

The analysis of data on farms practicing organic production methods and cultivated area gives a clear picture of the evolution of this sector between 2018 and 2022. In terms of certified organic farms, the number of certified organic farms decreased significantly in 2019 to 47 units, which represents a decrease of 4 units (-7.84%) compared to the previous year. However, this trend reversed in the following years, with a steady increase in the number of holdings, peaking at 87 units in 2022, reflecting an increase of 25 units (+40.32%) compared to 2021.

For organic farms in conversion, the data shows a drastic decrease to 40 units in 2021, after a decrease of 10 units (-15.38%) in 2019. However, in 2022, there has been a notable recovery with an increased number of 87 units, an increase of 47 units (+117.50%).

In the total cultivated area, a significant decrease was observed in 2019, with a loss of 1049.7 ha (-21.72%). This negative trend continued, with a slight increase in 2020 and 2021, but in 2022 the cultivated area decreased again by 64.5 ha (-1.31%). Overall, the data suggest a positive trend in certified organic and in-conversion farms, especially in 2022, despite the fluctuations observed in the cultivated area.

In the Republic of Moldova, support for organic agriculture through government funding is a crucial component in promoting sustainable agricultural practices. The government allocates financial resources through various programs and funds aimed at rural development, with the goal of assisting farmers in adopting eco-friendly technologies and sustainable production methods. These funds are used both for investments in necessary infrastructure, such as ecological irrigation systems and equipment for processing organic products, as well as for covering the costs associated with organic certification. Additionally, subsidies provided to farmers practicing organic agriculture help reduce the financial risks associated with transitioning to more sustainable production methods. Thus,

state financial support not only fosters the development of organic agriculture but also enhances the competitiveness of Moldovan products in both domestic and international markets.

Table 1. Promotion and support for the development of organic agriculture in the Republic of Moldova

Indicators	Year				
	2018	2019	2020	2021	2022
Number of beneficiaries of subsidies for the development of organic farming, units	69	67	63	54	30
Absolute deviation in the number of beneficiaries of subsidies for the development of organic farming, units:					
- with fixed base	0	-2	-4	-15	-39
- in the chain	-	-2	-6	-9	-24
Value of the National Fund for the Development of Agriculture and Rural Environment (FNDAMR), million MLD	900	950	1.200	1.536	1.750
Absolute deviation of the value of the FNDAMR, million MLD:					
- with fixed base	0	+50	+300	+636	+850
- in the chain	-	+50	+250	+336	+214
Value of allocated subsidy, thousand MLD	7,251.5	7,845.1	6,220.3	6,733.2	3,809.2
Absolute variation in the value of allocated grants, thousand MLD:					
- with fixed base	0	+593.6	-1,031.2	-518.3	-3,442.3
- in the chain	-	+593.6	-1,624.8	-512.9	-2,924.0

Source: based on NBS data [7]

The examination of support for the promotion and development of organic agriculture in the Republic of Moldova reveals concerning trends during the period from 2018 to 2022. Specifically, the number of beneficiaries receiving subsidies for organic agriculture development has steadily declined, dropping from 69 beneficiaries in 2018 to just 30 in 2022. This decrease is reflected in negative annual absolute changes, culminating in a steep drop of 24 beneficiaries in 2022, suggesting a decrease in the interest or accessibility of subsidies for farmers.

On the other hand, the value of the National Fund for Agriculture and Rural Development (NFARD) has steadily increased, from 900 million lei in 2018 to 1,750 million lei in 2022. [8] This significant growth demonstrates the state's commitment to supporting agriculture; however, contrary to this trend, the value of allocated subsidies has fluctuated considerably. For instance, after an increase of 593.6 thousand lei in 2019, there was a sharp decline in 2022, when the allocated subsidy value dropped to 3,809.2 thousand lei, a reduction of 2,924 thousand lei (-43.39%).

Thus, the analysis indicates a discrepancy between the increase in available financial resources and the decrease in the number of beneficiaries and subsidy values, suggesting that despite the availability of funds, their implementation remains a challenge for organic farmers. It is essential for authorities to investigate the causes of this decline and develop effective strategies to stimulate interest and accessibility to subsidies, thereby contributing to the sustainable development of organic agriculture in the Republic of Moldova.

According to Law No. 71/2023 on Subsidization in Agriculture and Rural Areas, a legislative framework is established to support agricultural activities and rural development. Priority I. Increasing the competitiveness of the agri-food sector through restructuring and modernization, submeasure 1.9. Stimulating promotion activities provides financial support to agricultural producers for the participation and organization of exhibitions, fairs, competitions, with agri-food profile, including in marketing networks on the foreign market, in order to increase competitiveness and promote domestic agricultural and agri-food products [9]. However, the analysis of this law reveals a significant omission: the lack of spending dedicated to digital marketing in the promotion of

agricultural businesses. This gap may have negative consequences for the competitiveness and long-term viability of agricultural producers. The strategy for the promotion of agricultural products, including organic ones, is predominantly focused on traditional methods, such as participation in physical exhibitions and fairs. While these events are important for networking and direct interaction with consumers, they do not reflect the needs of today's market, where digital marketing is becoming increasingly relevant. Thus, the subsidy policy seems to ignore global trends in marketing and consumer behavior, which is increasingly moving towards online channels.

In 2023, under sub-measure 1.9. Stimulating promotion activities, the Agency of Intervention and Payments in Agriculture authorized the payment of 14 applications for financial support of 0.5 million MLD for: 1) partial compensation for a professional association at an international exhibition for 5 entities, amounting to approximately 0.2 million MLD; 2) the certification of 9 agricultural producers with ISO/Global Gap standards, amounting to 0.3 million MLD. Resource allocation for promotion is inefficient. The sums allocated (0.5 million MLD) are distributed between participation in events and certification, without taking into account the importance of building a strong digital presence [10]. This limitation may hinder the expansion of agribusinesses, as well as organic businesses, into foreign markets, where digital marketing is essential to attract consumers. In addition, promotion methods based on physical events risk rapidly becoming ineffective in the face of the growth of online trade and digital advertising.

The impact of these omissions reflects directly on the competitiveness of agricultural producers. Without digital marketing support, they may find it difficult to reach a wider audience and effectively communicate the values of their products. This makes them less competitive compared to other brands that use advanced online marketing techniques. Also, companies that do not invest in digital marketing risk falling behind, which will harm their long-term growth.

It is imperative that subsidy policy evolves and integrates digital marketing as an essential component in promotion strategies. This could include targeted grants for online marketing campaigns, digital marketing training and the development of online sales platforms. A paradigm shift in policy thinking is needed to ensure alignment with international standards and better adaptation to consumer demands.

The extensive use of the internet in the Republic of Moldova creates a favorable environment for the evolution of digital marketing aimed at eco-friendly products. With an internet penetration of 61.3% and more than 2.14 million users, agricultural producers have a sizable consumer base that can be tapped through online marketing strategies. Also, the large number of social media users, which exceeds 1.6 million, indicates a high potential for targeted digital promotion campaigns on social platforms.

Mobile internet connectivity, with over 2.1 million users and a penetration rate of 76% among mobile connections, provides the opportunity to develop campaigns optimized for mobile devices. This situation allows producers to implement tailored marketing strategies such as social media advertising, email marketing campaigns, and interactive visual content, all accessible through mobile devices.

Against this backdrop, it is clear that producers of organic products can benefit from an extensive digital market, allowing them to promote their products directly to consumers, communicate the advantages of organic products, and build a loyal online community. Thus, the high internet usage rates in Moldova create a solid foundation for investments and digital strategies, transforming digital marketing into an essential tool for strengthening the organic products market.

The digital marketing of organic agricultural products in the Republic of Moldova is still at a rudimentary level of development, limited by several structural obstacles and low knowledge in the use of modern technologies. Although local consumers are showing a growing interest in organic products, this trend is not fully reflected in the promotion strategies of agricultural producers, who continue to rely mainly on traditional methods such as fairs and physical exhibitions. These methods, although useful for direct interaction with customers, do not capitalize on the potential offered by the digital environment.

A major challenge in the development of digital marketing in the ecological sector is the limited access to technological infrastructure, especially in rural areas. Small and medium-sized producers, who make up a large part of this sector, lack the necessary resources to invest in modern digital solutions or to hire digital marketing specialists. Furthermore, the lack of specific knowledge regarding the use of online tools, such as SEO, paid advertising, or social media management, limits their access to an expanding digital market.

Despite these challenges, there are significant opportunities that, if addressed correctly, can transform digital marketing into an essential component for promoting organic products. The use of the internet and social media is increasing among the population, creating a favorable context for promoting the values and benefits of organic products. Consumers are increasingly interested in sustainable and healthy products, and this trend can be leveraged by producers through well-structured digital strategies.

However, the lack of a strong online presence and the absence of an integrated digital marketing strategy can undermine the competitiveness of organic producers in both domestic and international markets. Relying exclusively on traditional promotional methods risks becoming ineffective due to the expansion of online commerce and the growing use of digital platforms by international competitors.

CONCLUSIONS

The absence of expenditures allocated to digital marketing within subsidies for promoting organic businesses is a significant omission that can severely impact the competitiveness and long-term viability of agricultural producers. Digital marketing represents an underutilized opportunity for promoting organic agricultural products in the Republic of Moldova. Adapting to market changes and integrating effective digital strategies are essential for sustaining competitiveness and sustainability in this sector. Through a strategic approach and adequate investments, organic producers can fully leverage their digital potential, becoming more visible and attractive in both domestic and international markets.

To develop the digital marketing of organic products in the Republic of Moldova, it would be beneficial to implement the following proposals:

- ✓ Organizing training and digital education programs, such as courses and workshops for producers, focused on digital marketing strategies, SEO optimization, paid advertising, and content creation and management on social media. These could be supported by authorities, non-governmental organizations, or educational institutions.
- ✓ Launching digital education campaigns that highlight the health and sustainability benefits of organic products through social media, specialized websites, and collaborations with industry influencers, capturing the attention of the young and environmentally conscious audience.
- ✓ Introducing subsidy measures that include financial support for developing online presence, creating websites, promoting through social media, and paid advertising, which would encourage producers to invest in digital marketing and adapt to new technologies.
- ✓ Organic producers should collaborate with specialized digital marketing agencies to enhance their strategy and communication effectiveness, as partnerships with influencers and bloggers focused on healthy and sustainable lifestyles can amplify the visibility of organic products.
- ✓ Creating digital guides and educational resources accessible to producers, containing information about digital marketing trends, promotion techniques, and the use of online commerce platforms.

Adapting to market changes and integrating digital marketing into promotional strategies are essential for ensuring their success in today's digital economy. Sustainable development in the Republic of Moldova is still in its early stages, and digital marketing represents a crucial opportunity for businesses looking to align with this global trend. Implementing these measures would not only enhance the visibility of eco-friendly products but also support the advancement of sustainability and innovation in the agri-food sector.

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