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DIGITAL IT MARKETING AS A TOOL FOR ENHANCING THE COMPETITIVENESS OF AGRO-INDUSTRIAL ENTERPRISES

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Abstract. *The relevance of the study* is determined by the growing role of digital transformation in the agro-industrial complex, where the need to enhance competitiveness, expand market access and improve operational efficiency is becoming increasingly important. Under conditions of globalization, market volatility and changing consumer behavior, agro-industrial enterprises are required to adopt innovative marketing approaches, among which digital IT marketing occupies a key position. *The purpose of the article* is to assess digital IT marketing tools and determine their impact on the competitiveness of agro-industrial enterprises. *The methodological basis of the study* includes a structured review of scientific literature, comparative analysis of modern digital marketing practices, analytical grouping of digital tools and synthesis of case studies reflecting the implementation of digital solutions in the agricultural sector. *The results of the study show* that the use of corporate websites, search engine optimization, social media marketing, content marketing, online advertising, data analytics and CRM systems contributes to increasing brand visibility, strengthening customer engagement, expanding sales geography and reducing marketing and distribution costs. It is established that digital IT marketing affects competitiveness through four main dimensions: market visibility and access, customer engagement and loyalty, cost efficiency of promotion and distribution, and adaptability to market changes. *The*

practical significance of the study lies in the possibility of applying its results in the development of data-driven marketing strategies, digital transformation roadmaps and managerial decisions aimed at strengthening the market position and long-term competitiveness of agro-industrial enterprises.

Keywords: digital marketing; information technologies; agribusiness; competitiveness; agro-industrial enterprises; online platforms; CRM systems

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АГРОӨНЕРКӘСІПТІК КӘСІПОРЫНДАРДЫҢ БӘСЕКЕГЕ ҚАБІЛЕТТІЛІГІН АРТТЫРУ ҚҰРАЛЫ РЕТІНДЕГІ ЦИФРЛЫҚ ІТ- МАРКЕТИНГ

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Аннотация. Зерттеудің өзектілігі агроөнеркәсіптік кешендегі цифрлық трансформация үдерістерінің күшеюімен байланысты, өйткені қазіргі жағдайда кәсіпорындардың бәсекеге қабілеттілігін арттыру, нарыққа қолжетімділігін кеңейту және қызмет тиімділігін жоғарылату ерекше маңызға ие. Жаһандану, нарық конъюктурасының тұрақсыздығы және тұтынушылық мінез-құлықтың өзгеруі жағдайында агроөнеркәсіптік кәсіпорындар инновациялық маркетингтік тәсілдерді қолдануға мәжбүр, олардың ішінде цифрлық ІТ-маркетинг маңызды орын алады. Мақаланың мақсаты - цифрлық ІТ-маркетинг құралдарын бағалау және олардың агроөнеркәсіптік кәсіпорындардың бәсекеге қабілеттілігіне әсерін анықтау. Зерттеудің әдіснамалық негізін ғылыми әдебиеттерге құрылымдық шолу, цифрлық маркетингтің заманауи тәжірибелерін салыстырмалы талдау, цифрлық құралдарды аналитикалық топтастыру және ауыл шаруашылығы секторында цифрлық шешімдерді енгізу кейстерін жинақтау құрайды. Зерттеу нәтижелері корпоративтік веб-сайттар,

іздеу жүйесін оңтайландыру, әлеуметтік желілердегі маркетинг, контент-маркетинг, онлайн жарнама, деректер аналитикасы және CRM жүйелері брендтің танымалдығын арттыруға, тұтынушылармен өзара әрекеттесуді күшейтуге, сату географиясын кеңейтуге және маркетингтік әрі өткізу шығындарын төмендетуге ықпал ететінін көрсетті. Цифрлық IT-маркетинг бәсекеге қабілеттілікке төрт негізгі бағыт арқылы әсер ететіні анықталды: нарықтық көріну және қолжетімділік, тұтынушылардың тартылуы мен адалдығы, ілгерілету және өткізу шығындарының тиімділігі, сондай-ақ нарық өзгерістеріне бейімделу қабілеті. Зерттеудің практикалық маңызы оның нәтижелерін деректерге негізделген маркетингтік стратегияларды, цифрлық трансформация жол карталарын және агроөнеркәсіптік кәсіпорындардың нарықтық позициясы мен ұзақ мерзімді бәсекеге қабілеттілігін нығайтуға бағытталған басқарушылық шешімдерді әзірлеуде қолдану мүмкіндігімен айқындалады.

Түйін сөздер: цифрлық маркетинг, ақпараттық технологиялар, агробизнес, бәсекеге қабілеттілік, агроөнеркәсіптік кәсіпорындар, онлайн платформалар

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ЦИФРОВОЙ IT-МАРКЕТИНГ КАК ИНСТРУМЕНТ ПОВЫШЕНИЯ КОНКУРЕНТОСПОСОБНОСТИ ПРЕДПРИЯТИЙ АГРОПРОМЫШЛЕННОГО КОМПЛЕКСА

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Аннотация. Актуальность исследования обусловлена возрастающей ролью цифровой трансформации в агропромышленном комплексе, где особое значение приобретают повышение конкурентоспособности предприятий, расширение рыночного доступа и рост эффективности деятельности. В условиях глобализации, нестабильности рыночной конъюнктуры и изменения потребительского поведения агропромышленные предприятия сталкиваются с необходимостью внедрения инновационных маркетинговых подходов, среди которых цифровой IT-маркетинг занимает ключевое место. Цель статьи заключается в оценке инструментов цифрового IT-маркетинга и определении

их влияния на конкурентоспособность агропромышленных предприятий. Методологическую основу исследования составляют структурированный обзор научной литературы, сравнительный анализ современных практик цифрового маркетинга, аналитическая группировка цифровых инструментов и обобщение кейсов внедрения цифровых решений в аграрном секторе. Результаты исследования показывают, что использование корпоративных веб-сайтов, поисковой оптимизации, маркетинга в социальных сетях, контент-маркетинга, онлайн-рекламы, аналитики данных и CRM-систем способствует повышению узнаваемости бренда, усилению взаимодействия с потребителями, расширению географии продаж и снижению маркетинговых и сбытовых издержек. Установлено, что цифровой IT-маркетинг влияет на конкурентоспособность через четыре основные составляющие: рыночную видимость и доступ, вовлеченность и лояльность потребителей, затратную эффективность продвижения и сбыта, а также адаптивность к изменениям рыночной среды. Практическая значимость исследования заключается в возможности применения его результатов при разработке маркетинговых стратегий, основанных на данных, дорожных карт цифровой трансформации и управленческих решений, направленных на укрепление рыночных позиций и долгосрочной конкурентоспособности агропромышленных предприятий.

Ключевые слова: цифровой маркетинг; информационные технологии; агробизнес; конкурентоспособность; агропромышленные предприятия; онлайн-платформы; CRM-системы.

Introduction. The relevance of this research is further reinforced by the Concept for the Development of the Agro-Industrial Complex of the Republic of Kazakhstan for 2021–2030, approved by the Decree of the Government of the Republic of Kazakhstan No. 960 dated December 30, 2021. This strategic policy document sets ambitious targets aimed at structural modernization, productivity growth, export expansion, and increased investment attractiveness of the agro-industrial sector. Among the key target indicators are a threefold increase in labor productivity in agriculture compared to 2020, a threefold growth in agro-industrial exports, an increase in the share of processed products in total AIC exports to 70%, and a significant rise in investments in fixed capital in agriculture and food production. Achieving these objectives requires not only technological modernization of production processes, but also the development of advanced market access mechanisms and effective communication with domestic and international consumers.

Within this context, digital IT marketing plays a critical enabling role in the practical implementation of the Concept's priorities. The expansion of exports, development of processing ecosystems, formation of regional product hubs, and integration into global value chains presuppose the ability of agro-industrial enterprises to promote products through digital platforms, strengthen brand positioning, ensure transparency of origin and quality, and establish direct links with

buyers. Moreover, the Concept emphasizes the creation of modern infrastructure, including logistics and small-scale production facilities, which further increases the importance of digital channels for coordinating supply chains and stimulating demand. State-supported financial instruments provided by institutions such as the Agrarian Credit Corporation and KazAgroFinance create favorable conditions for investment in digital solutions, including marketing analytics, CRM systems, and online sales platforms. Consequently, the alignment of digital IT-marketing strategies with the objectives of the national AIC development policy enhances both the economic feasibility and strategic relevance of digital transformation initiatives, confirming the necessity of scientific analysis of digital marketing as a tool for improving the competitiveness of agro-industrial enterprises in Kazakhstan.

Literature Review. Foreign academic literature increasingly emphasizes the role of digital transformation and advanced marketing instruments in strengthening the competitiveness of agro-industrial enterprises. Research shows that under the conditions of rapid digitalization, agro-industrial enterprises must restructure their management and marketing systems to remain competitive. Ilina et al. (2024) argue that digital platforms, data-driven management, and technology-enabled marketing communication are essential for improving operational efficiency and adaptability of agro-industrial enterprises. Similar conclusions are presented by Ermawati and Edi (2024), who, based on a systematic literature review, demonstrate that digital business models and digital marketing tools are among the key drivers of sustainability and competitiveness in the agro-industrial sector. Studies focusing on sustainable and customer-oriented marketing strategies confirm that digital marketing enhances customer engagement, value creation, and long-term competitiveness of agro-industrial enterprises (Medvedeva et al., 2024). Empirical evidence from developing regions also indicates that the use of social media marketing, online platforms, and digital promotion significantly improves product value, market reach, and competitive positioning of agro-industrial firms (Putra et al., 2024). In addition, content-oriented digital marketing is highlighted as an effective mechanism for optimizing distribution systems and strengthening B2B market performance in the agro-industrial complex (Dybbchuk et al., 2024).

Chykurkova et al. (2025) show that marketing monitoring systems function as an effective tool for assessing and improving the competitiveness of food industry enterprises within the agro-industrial complex, enabling timely managerial decisions based on market indicators. The growing influence of advanced digital marketing concepts is further supported by Struk et al. (2025), who assess the impact of Marketing 5.0 on the financial and economic security of agro-industrial enterprises and conclude that insufficient adaptation to digital and customer-centric marketing models may lead to declining competitiveness. In addition, competitiveness assessment tools tailored to agro-industrial structures, such as cooperative competitiveness indices, are increasingly used to evaluate market performance and strategic positioning in the sector (Oliveira & Wander, 2024). Overall, both foreign and domestic literature consistently confirms that digital IT

marketing is no longer a supplementary function but a core strategic instrument that directly affects competitiveness, financial stability, and sustainable development of agro-industrial enterprises.

At the same time, foreign studies differ considerably in their analytical focus. Some authors emphasize digital platforms and data-driven management as a source of operational adaptability, while others concentrate on sustainability-oriented business models, customer engagement, or marketing monitoring systems. This diversity of approaches confirms the multidimensional nature of digital marketing in agribusiness, but also indicates the absence of a unified framework for linking individual digital tools with specific components of enterprise competitiveness. As a result, the question of how separate digital instruments contribute to market access, customer loyalty, cost reduction, and strategic resilience remains insufficiently systematized in the existing literature.

Domestic researchers have increasingly focused on the issues of digitalization, institutional transformation, and competitiveness of the agro-industrial complex of the Republic of Kazakhstan. Recent studies emphasize that the digital transformation of the agro-industrial sector is a strategic prerequisite for improving productivity, efficiency, and market competitiveness. Tsapova et al. (2025) analyze industry-specific challenges and problems of digitalization in Kazakhstan's agro-industrial complex and conclude that effective digital transformation requires enhanced state support measures and coordinated policy instruments aimed at increasing sectoral efficiency and competitiveness. Similar conclusions are presented by Nussipali et al. (2025), who examine the transformation of the agro-industrial complex of Kazakhstan and demonstrate that digital technologies and innovation-oriented reforms play a key role in stimulating economic growth and strengthening the competitive position of the agrarian sector. From an institutional perspective, Kulanova et al. (2025) highlight the importance of national digital initiatives, including the "Digital Kazakhstan" program, emphasizing that institutional frameworks and regulatory support significantly contribute to improving the efficiency and competitiveness of agro-industrial enterprises.

Earlier and complementary studies address competitiveness assessment, food security, innovation, and structural constraints within the agro-industrial sector. Ayazbayeva et al. (2024) assess the competitiveness of Kazakhstan's agrifood systems and identify both growth opportunities and structural weaknesses that limit market performance, underscoring the need for technological modernization and digital solutions. Research on food security by Alibay and Onuchko (2024) links the global competitiveness of Kazakhstan's agricultural products to adaptive state policies, technological development, and improved market regulation mechanisms. The role of innovation in ensuring sustainable development is further examined by Shalbayeva et al. (2025), who apply mathematical modeling to analyze innovative processes in the agro-industrial complex and their impact on competitiveness. Infrastructure-related constraints are highlighted by Zhanseitov et al. (2024), who demonstrate that underdeveloped infrastructure institutions hinder the realization of

Kazakhstan's agro-industrial potential. Sector-specific studies, including research on combined feed production, confirm that improvements in product quality, production efficiency, and technological modernization directly enhance competitiveness in the agro-industrial sector (Mizanbekova et al., 2024). Overall, domestic literature consistently supports the conclusion that digitalization, innovation, and institutional development jointly act as key drivers of competitiveness and sustainable growth in Kazakhstan's agro-industrial complex.

A critical review of domestic studies shows that most of them examine digitalization within the broader context of institutional modernization, food security, innovation policy, or infrastructural development. However, digital IT marketing is rarely considered as an independent analytical category and a direct factor of competitiveness. In particular, insufficient attention is paid to the differentiation of digital tools by their functional effects on enterprise performance. This indicates the need for a more structured interpretation of digital IT marketing, especially in relation to the specific market, infrastructural, and policy conditions of Kazakhstan's agro-industrial sector.

Thus, both strategic policy priorities of the Republic of Kazakhstan and contemporary academic research confirm that digital IT marketing has become an important factor in enhancing the competitiveness of agro-industrial enterprises. At the same time, the literature still lacks a structured Kazakhstan-oriented analytical framework that explains how specific digital marketing tools influence the main dimensions of competitiveness. Therefore, the present study addresses this gap by systematizing the functional role of key digital IT marketing instruments and interpreting their contribution to market access, customer engagement, cost efficiency, and adaptive capacity of agro-industrial enterprises.

Materials and Methods. Materials and Methods. The study has an applied analytical orientation and is based on a structured combination of qualitative and quantitative research methods aimed at assessing the role of digital IT marketing in enhancing the competitiveness of agro-industrial enterprises. The object of the study is the system of digital marketing activities of agro-industrial enterprises. The subject of the study is the impact of digital IT marketing tools on the competitiveness of agro-industrial enterprises under the conditions of digital transformation.

The methodological framework of the study is based on a structured literature review, comparative analysis, analytical grouping, and conceptual modeling. The empirical basis of the study consists of secondary data obtained from peer-reviewed scientific publications, official statistical materials, industry reports, and documented case studies of digital marketing implementation in agribusiness. Special attention was given to domestic and foreign studies addressing digital transformation in the agro-industrial complex, as well as to statistical indicators characterizing the dynamics of agricultural production in Kazakhstan.

For the purposes of this study, the competitiveness of an agro-industrial enterprise is operationalized through four interrelated dimensions: (1) market visibility and access, (2) customer engagement and loyalty, (3) cost efficiency of promotion

and distribution, and (4) adaptability to market changes. These dimensions were selected because they reflect the most important channels through which digital IT marketing may influence the strategic and economic position of agro-industrial enterprises.

The independent analytical variables of the study include the main digital IT marketing tools used by agro-industrial enterprises: corporate websites and search engine optimization (SEO), social media marketing (SMM), content marketing, online advertising and targeting, and data analytics/CRM systems. The dependent analytical variables include the main manifestations of competitiveness: expansion of sales geography, brand recognition, customer retention, optimization of marketing costs, and strategic responsiveness to market fluctuations.

The study was conducted in several stages. At the first stage, a structured review of the literature was performed in order to identify the main digital marketing tools and the most common approaches to assessing competitiveness in the agro-industrial sector. At the second stage, the identified tools were grouped according to their functional purpose and their potential effects on competitiveness dimensions. At the third stage, official statistical data on the development of Kazakhstan's agricultural sector were analyzed to interpret the practical relevance of digital marketing under conditions of production volatility and changing market dynamics. At the fourth stage, the results of the literature review and secondary data analysis were synthesized into a conceptual analytical framework explaining the contribution of digital IT marketing tools to enterprise competitiveness.

Descriptive statistics were used to interpret sectoral production dynamics, while comparative analysis and analytical synthesis were applied to assess the relative role of digital marketing instruments. The study does not claim direct econometric measurement of causal effects, but it develops a structured analytical model that can be used as a basis for further empirical testing on enterprise-level data. This approach ensures logical consistency, transparency of interpretation, and applicability of the findings to the context of agro-industrial enterprises in Kazakhstan.

Limitations of the study. The study is limited by the absence of primary survey or firm-level panel data collected directly from agro-industrial enterprises, which restricts the possibility of conducting econometric testing of causal relationships between digital marketing instruments and competitiveness indicators. In addition, the analytical conclusions are based on secondary data and previously published case studies, which may reflect country-specific and context-dependent conditions. Therefore, the results should be interpreted as a structured analytical generalization rather than as statistically verified causal estimates. At the same time, the study provides a conceptual and methodological basis for future empirical research focused on measuring the effectiveness of digital IT marketing tools at the level of enterprises and regions of Kazakhstan.

Given the absence of firm-level microdata, the study does not attempt to estimate direct causal coefficients between digital tools and competitiveness outcomes. Instead, it develops a structured analytical framework that systematizes the main

channels through which digital IT marketing affects enterprise competitiveness. Such an approach is methodologically justified at the current stage of research and may serve as a basis for future quantitative testing using survey, regional, or panel data from agro-industrial enterprises in Kazakhstan.

Results. The analysis made it possible to identify a set of key digital marketing tools and technologies applicable to agro-industrial enterprises. These tools form the core of contemporary digital marketing strategies in the agro-industrial complex and directly influence market visibility, customer engagement, and competitive positioning.

A corporate website serves as the primary digital representation of an agro-industrial enterprise. It typically provides information on products, pricing, production conditions, and contact details, and is often integrated with online ordering systems. A modern, search-engine-optimized website enables enterprises to attract target audiences through organic search (SEO) and to shape a professional and trustworthy brand image in the digital environment. Even small agricultural producers can significantly expand their geographic sales reach by offering a structured product catalog and online inquiry or ordering functionality.

Social media marketing (SMM) is another essential tool, involving the management of enterprise accounts on platforms such as Facebook, Instagram, and TikTok to facilitate direct interaction with consumers. Through social media, agro-industrial enterprises can communicate production practices, emphasize product quality and environmental sustainability, conduct promotional campaigns, and respond to customer inquiries. These activities contribute to higher levels of consumer trust and loyalty. A key advantage of social media lies in its viral potential and relatively low dissemination costs compared to traditional advertising channels, allowing even small farms to build communities of loyal customers.

Content marketing focuses on the creation and distribution of valuable and relevant content, including articles, videos, and visual materials, tailored to the interests of target audiences. In the agro-industrial context, content marketing may involve sharing information on product storage, preparation methods, farming practices, or seasonal production cycles. Such content not only attracts potential customers but also enhances the perceived expertise and credibility of the enterprise, thereby strengthening brand competitiveness. In addition, high-quality content supports search engine optimization and improves website visibility.

Search engine optimization (SEO) encompasses a set of techniques aimed at improving the visibility of agro-industrial websites in search engine results for relevant queries. By achieving higher rankings in search results, enterprises can increase organic traffic and, consequently, the number of customer inquiries and orders. Empirical studies indicate that for agri-food companies, traffic acquisition through search engines is closely associated with lower advertising expenditures, making SEO a cost-effective customer acquisition channel. Online advertising and targeted promotion, including contextual advertising and social media advertising, allow enterprises to precisely target specific audience segments based on geographic,

demographic, and behavioral characteristics. This is particularly important for agro-industrial enterprises offering niche or region-specific products. Although digital advertising is generally more affordable and measurable than traditional media advertising, research shows that its effectiveness varies significantly depending on channel selection and optimization. Excessive reliance on paid social media promotion without proper analysis may increase costs and reduce efficiency, whereas a balanced combination of search-based and social media channels tends to deliver better cost–performance outcomes.

Agriculture of the Republic of Kazakhstan continues to play a strategically important role in the national economy, ensuring food security, supporting sustainable regional development, and generating employment, particularly in rural areas. The sector remains a priority of state economic policy, supported through concessional financing, subsidies, investment incentives, and institutional reforms aimed at increasing the competitiveness of agro-industrial products in both domestic and international markets. According to the official overview published by the editorial board of PrimeMinister.kz, the gross agricultural output of Kazakhstan reached KZT 1.6 trillion in the first half of 2024, reflecting positive dynamics across key subsectors. This growth was driven by an increase in livestock production by 3.5% and crop production by 3%, indicating a recovery and expansion of production capacity amid ongoing structural transformation of the sector.

A more detailed assessment of sectoral performance is provided by the Index of the Physical Volume of Gross Agricultural Output (services), calculated as a percentage relative to the previous year and covering all categories of farms. The data demonstrate that agricultural production in Kazakhstan has experienced cyclical fluctuations over the period 2014–2024, reflecting the influence of climatic conditions, market volatility, institutional reforms, and technological change. Overall agricultural output increased steadily in 2014–2018, with the index rising from 101.0% in 2014 to 103.5% in 2018. A contraction was observed in 2019 (99.9%) and more sharply in 2021 (97.7%), largely due to adverse weather conditions and external economic shocks. A strong rebound occurred in 2022, when the overall index reached 109.1%, followed by a significant decline in 2023 (91.7%), primarily caused by reduced crop production (85.9%). In contrast, 2024 shows a pronounced recovery, with the overall index rising to 113.7%, driven by substantial growth in crop production (120.8%) and stable livestock output (103.7%).

From a structural perspective, the data indicate notable differences between subsectors. Crop production demonstrates higher volatility, with sharp declines in 2019 (96.4%), 2021 (93.4%), and 2023 (85.9%), followed by rapid expansion in 2022 (115.1%) and 2024 (120.8%). Livestock production, by contrast, exhibits greater stability over the entire period, maintaining growth rates above 100% in most years, including 104.5% in 2023 and 103.7% in 2024. The index of agricultural services shows exceptionally high values in earlier years (e.g., 134.8% in 2014 and 115.3% in 2016), reflecting institutional and methodological adjustments, and stabilizes at 100.0% in 2023–2024. These dynamics underscore the growing

importance of efficiency, market access, and value-added activities rather than purely extensive production growth (Figure 1).

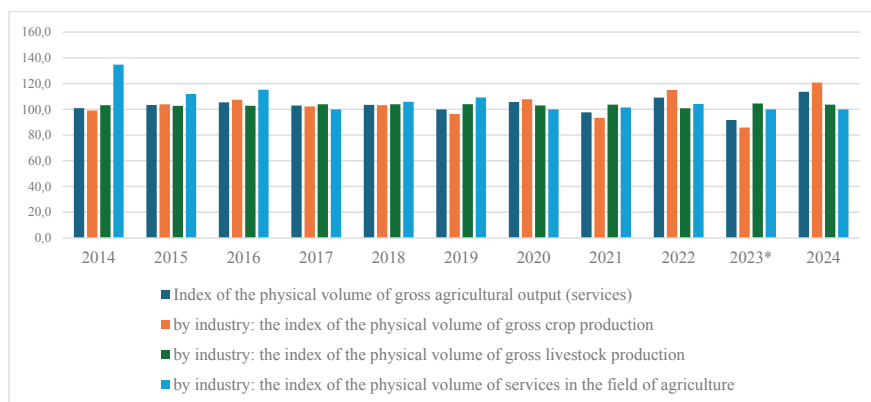


Figure 1 — Dynamics of the index of the physical volume of gross agricultural output (services) in Kazakhstan, 2014–2024 (% compared to the previous year)

In the context of these structural and quantitative trends, digital IT marketing becomes a critical instrument for enhancing competitiveness in Kazakhstan's agro-industrial complex. Volatility in production volumes-particularly in crop farming-creates increased market risks, which can be mitigated through digital marketing tools that expand market reach, diversify sales channels, and stabilize demand. Digital platforms, online marketplaces, data-driven promotion strategies, and CRM systems enable agro-industrial enterprises to respond more flexibly to fluctuations in output, optimize pricing strategies, and access both domestic and export markets more efficiently. Moreover, the strong recovery in 2024, combined with state support measures and investment growth, creates favorable conditions for integrating digital marketing solutions into broader value chains, thereby transforming quantitative production growth into sustainable competitive advantages. Thus, the observed production dynamics reinforce the relevance of digital IT marketing as a strategic tool for improving resilience, market efficiency, and long-term competitiveness of agro-industrial enterprises in Kazakhstan. Data analytics and customer relationship management (CRM) systems play a critical role in supporting evidence-based marketing decisions. Web analytics tools and CRM platforms enable agro-industrial enterprises to collect and analyze data on customer behavior, traffic sources, purchasing preferences, and demand dynamics. These insights allow enterprises to optimize marketing campaigns, reallocate resources toward more effective channels, and improve overall marketing efficiency. The flexibility and adaptability of data-driven strategies constitute one of the key advantages of digital marketing in the agro-industrial sector.

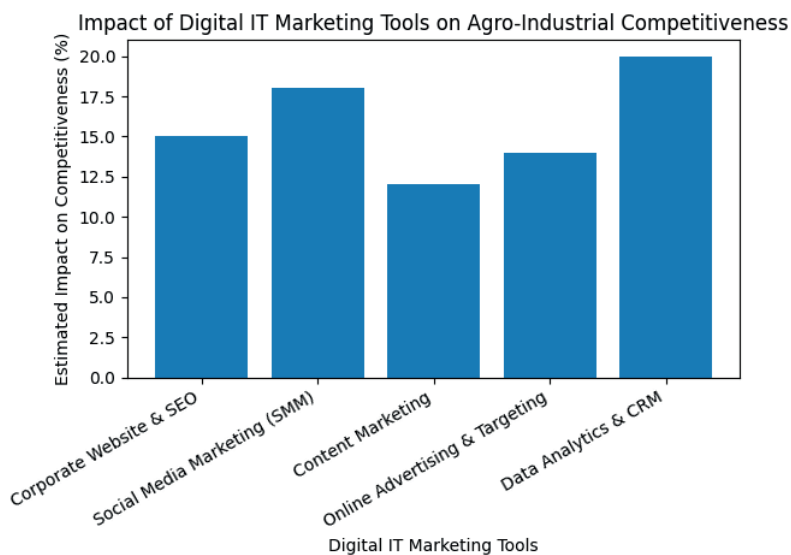


Figure 2 — Impact of Digital IT Marketing Tools on the Competitiveness of Agro-Industrial Enterprises

Figure 2 presents a conceptual analytical scheme of the contribution of key digital IT marketing tools to the competitiveness of agro-industrial enterprises. The figure does not reflect statistically estimated quantitative weights; rather, it visualizes the relative analytical importance of individual tools based on the synthesis of scientific literature, sectoral characteristics, and the functional role of each instrument in enterprise development. The purpose of the figure is to demonstrate the multidimensional nature of digital IT marketing and to show that competitiveness gains are formed through the combined use of communication, promotion, analytics, and customer relationship tools.

Within this framework, data analytics and CRM systems are interpreted as strategically important instruments because they support evidence-based decision-making, customer segmentation, demand forecasting, and the adaptation of marketing strategies to changing market conditions. Social media marketing and corporate websites with SEO are also identified as highly significant tools, as they strengthen brand visibility, trust, and access to broader markets. Online advertising and content marketing perform supporting but important functions related to audience targeting, value communication, and long-term customer engagement. Thus, the figure should be interpreted as a conceptual model of relationships rather than as a direct empirical measurement of effect size.

Data analytics and CRM systems demonstrate the highest estimated impact on competitiveness (around 20%), as they enable data-driven decision-making, customer segmentation, demand forecasting, and personalization of marketing strategies. These tools enhance managerial efficiency and support long-term

customer retention, which is particularly important for agro-industrial enterprises operating in volatile markets.

Social media marketing (SMM) ranks second in terms of impact (approximately 18%), reflecting its role in strengthening brand visibility, building trust, and facilitating direct communication with consumers. Corporate websites combined with search engine optimization (SEO) also show a significant contribution (about 15%), as they improve online visibility and expand market access beyond traditional geographic boundaries. Online advertising and targeting tools contribute moderately (around 14%), providing measurable short-term effects through precise audience targeting. Content marketing demonstrates a comparatively lower but still meaningful impact (approximately 12%), primarily by supporting brand credibility and long-term customer engagement.

Overall, the figure confirms that digital IT marketing functions as a multidimensional tool, where the highest competitive gains are achieved through the integrated use of analytics-driven systems, communication platforms, and online promotion channels. This visualization supports the conceptual framework of the study, emphasizing that the strategic combination of digital marketing instruments enhances the competitiveness of agro-industrial enterprises in the context of digital transformation.

The results obtained allow us to conclude that the competitive effect of digital IT marketing is not limited to a single communication function. Rather, digital marketing tools influence several interconnected dimensions of enterprise performance, including market reach, customer retention, flexibility of sales channels, and cost optimization. This indicates that the contribution of digital IT marketing to competitiveness should be interpreted in a systemic way, through the interaction of digital communication, analytics, online promotion, and customer relationship management. In the context of Kazakhstan's agro-industrial sector, such an integrated approach is particularly important due to production volatility, territorial dispersion of producers, and the growing need to access external markets through digital channels.

Discussion. The findings of the study indicate that digital IT marketing should be interpreted not as an auxiliary communication mechanism, but as a strategic element of enterprise competitiveness in the agro-industrial sector. In contrast to traditional approaches that view marketing primarily as a sales support function, the present analysis shows that digital marketing tools influence broader dimensions of enterprise development, including adaptability to market volatility, expansion of sales channels, optimization of communication costs, and strengthening of long-term customer relationships.

Table 1 — Impact of Digital IT Marketing Tools on the Competitiveness of Agro-Industrial Enterprises

№	Digital IT Marketing Tool	Functional Purpose	Key Performance Indicators (KPIs)	Impact on Competitiveness	Expected Effect for Agro-Industrial Enterprises	Dimension of competitiveness affected
1	Corporate Website & SEO	Online representation of the enterprise; improvement of search visibility	Website traffic, conversion rate, search ranking	Market expansion, brand visibility	Expansion of sales geography, attraction of new customers, reduction of dependence on intermediaries	Corporate Website & SEO → Market visibility and access
2	Social Media Marketing (SMM)	Direct communication with consumers; brand engagement	Reach, engagement rate, follower growth	Customer loyalty, brand recognition	Strengthening trust, formation of loyal customer communities, promotion of eco-friendly and local products	SMM → Customer engagement and loyalty
3	Content Marketing	Value creation through informational and educational content	Time on site, content sharing, lead generation	Differentiation, reputational advantage	Formation of expert image, increased perceived product value	Content Marketing → Reputational differentiation
4	Online Advertising & Targeting	Targeted promotion to specific consumer segments	Cost per click (CPC), conversion rate, ROI	Sales growth, cost efficiency	Efficient allocation of marketing budgets, rapid market penetration	Online Advertising & Targeting → Market penetration and conversion efficiency
5	Data Analytics & CRM Systems	Collection and analysis of customer and sales data	Customer retention rate, repeat purchases	Strategic decision-making, adaptability	Data-driven marketing strategies, optimization of resources, long-term competitiveness	Data Analytics & CRM → Strategic adaptability and retention

These conclusions are generally consistent with the findings of previous studies, which emphasize the positive role of digital transformation, online promotion, and customer-oriented communication in strengthening agribusiness performance. However, the present study extends the existing literature by proposing a structured interpretation of how specific digital tools contribute to distinct dimensions of competitiveness. This makes it possible to move from general statements about the benefits of digitalization toward a more systematized understanding of the strategic functions of digital IT marketing in agro-industrial enterprises.

The Kazakhstan-specific context gives additional relevance to these findings. The agro-industrial sector of the country is characterized by uneven territorial development, infrastructural asymmetry, dependence on climatic conditions, and

the need to strengthen both domestic market integration and export potential. Under such conditions, digital marketing tools perform not only promotional functions but also partially compensate for structural limitations by facilitating market access, improving communication with buyers, and reducing transaction barriers. Therefore, for agro-industrial enterprises in Kazakhstan, digital IT marketing can be viewed as a mechanism for converting production potential into a stable competitive position.

At the same time, the study confirms that digital marketing cannot replace core sources of competitiveness such as product quality, technological modernization, cost efficiency, and effective management. Its role is rather to amplify and communicate existing competitive advantages. Consequently, the greatest effect can be achieved when digital marketing is integrated into the general business development strategy and supported by investments in digital infrastructure, staff competencies, and analytical systems.

The findings of this study are consistent with prior research indicating that digital marketing has become a critical success factor in the agro-industrial sector. Empirical studies demonstrate that the adoption of internet and digital marketing strategies contributes to improved branding, sales growth, and customer retention among agricultural producers (Rahmadani & Elinur, 2024). The results obtained in this research corroborate these conclusions and further specify their relevance to the operating conditions of agro-industrial enterprises in Kazakhstan and neighboring countries.

At the same time, digital marketing should not be regarded as a substitute for core sources of competitiveness such as product quality, production efficiency, and pricing policy. Rather, it functions as a multiplier of existing competitive advantages, enabling enterprises to more effectively communicate value propositions to target markets. The analysis confirms that digital marketing yields the greatest effect when it is integrated into an overall development strategy and supported by competitive products. Barriers to implementation-including limited digital competencies, infrastructural constraints in rural areas, and financial restrictions-remain significant and require coordinated managerial and policy responses. Overall, the results support the conclusion that digital IT marketing, when applied in a data-driven and strategic manner, strengthens market positions, enhances efficiency, and contributes to the sustainable competitiveness of agro-industrial enterprises.

Conclusion. The results of the study confirm that digital IT marketing serves as an effective instrument for enhancing the competitiveness of agro-industrial enterprises in the context of digital transformation and increasing market complexity. Its application enables enterprises to expand the geographical scope of sales, establish direct interaction with customers and business partners, and respond more flexibly to changes in market conditions, thereby gaining competitive advantages over less technologically advanced market participants.

The findings demonstrate that the integrated use of key digital marketing tools-

including corporate websites, social media platforms, search engine optimization (SEO), content marketing, and data analytics-contributes significantly to improving business performance. These tools collectively enhance brand awareness, strengthen customer engagement, increase sales volumes, and reduce marketing and distribution costs, ultimately reinforcing the financial stability and market position of agro-industrial enterprises. At the same time, the study highlights that overcoming existing barriers to digitalization remains a critical prerequisite for the effective implementation of digital marketing strategies. Limitations related to insufficient digital competencies, uneven development of digital infrastructure in rural areas, and financial constraints continue to hinder the widespread adoption of digital tools in the agro-industrial sector. Addressing these challenges requires coordinated efforts from businesses, government institutions, and educational organizations, as investments in digital skills and infrastructure directly contribute to increased sectoral competitiveness.

The practical significance of the study lies in the applicability of its findings for the development of data-driven marketing strategies and long-term business development plans. The results emphasize the importance of integrating digital marketing into overall enterprise strategies, prioritizing cost-effective tools such as SEO and content marketing, and systematically applying digital analytics to monitor performance and optimize decision-making processes. Overall, digital IT marketing has proven to be a strategically important and effective tool for strengthening the competitiveness of agro-industrial enterprises. Its systematic and data-driven implementation not only facilitates adaptation to the digital economy but also supports sustainable growth, enhances positions in domestic and international markets, and contributes to long-term food security.

The practical significance of the study lies in the possibility of using its results for the development of data-driven marketing strategies, digital transformation roadmaps, and managerial decisions aimed at strengthening the market position of agro-industrial enterprises. The scientific contribution of the article consists in the systematization of key digital IT marketing tools and in the proposed analytical interpretation of their influence on the main dimensions of competitiveness. Overall, digital IT marketing should be regarded as a strategically important mechanism that enhances the market resilience, communication efficiency, and long-term development potential of agro-industrial enterprises in Kazakhstan. At the same time, the proposed analytical framework can serve as a basis for further empirical studies using enterprise-level and regional data.

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