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# MODEL OF INFORMATIZATION OF TRADE MANAGEMENT AND MARKETING STRATEGIES FOR PROMOTING GOODS AND SERVICES

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# МОДЕЛЬ ІНФОРМАТИЗАЦІЇ ТОРГОВОГО МЕНЕДЖМЕНТУ ТА МАРКЕТИНГОВИХ СТРАТЕГІЙ ПРОСУВАННЯ ТОВАРІВ ТА ПОСЛУГ

*In the context of rapid digital technology evolution, accelerating market globalization, and intense competition, business entities are compelled to constantly adapt their management systems and marketing strategies to changes in the external environment. This continuous adaptability is driven by the fact that traditional approaches to managing trade processes and promoting goods and services are losing their effectiveness, giving way to innovative models based on the principles of informatization and flexibility. The main goal of the article is to develop a conceptual framework for integrating digital solutions into decision-making processes in trade and marketing, which will enhance the adaptability of enterprises to the challenges of the modern business environment. The research results demonstrate that the model of informatization of trade management and marketing strategies for promoting goods and services is viewed as a structural and organizational system that ensures a comprehensive digital transformation of the commercial activities of a business entity.*

*It has been established that the core of the outlined model is the integration of modern information technologies into the management of trade processes and innovative marketing technologies aimed at enhancing the effectiveness of promoting goods and services. It has been proven that such integration enables: increasing the competitiveness of the business entity; optimizing internal business processes; providing analytical support for managerial decisions; and implementing personalized communications with the target audience. The application of the informatization model of trade management and marketing strategies for the promotion of goods and services in the practice of business entities contributes to the development and implementation of information-driven high-level plans that respond to the current challenges of the digital economy. This approach ensures not only the automation and digital transformation of core business processes but also the creation of a flexible management system capable of promptly responding to changes in the external environment, consumer behavior patterns, and competitive actions. By combining tools for analytics, personalization, multichannel communication, and forecasting, business entities gain the ability to make well-informed managerial decisions based on real data.*

*У сучасних умовах стрімкого розвитку цифрових технологій, глобалізації ринків та висхідної конкуренції суб'єкти господарювання змушені постійно адаптувати свої системи менеджменту та маркетингові стратегії до змін зовнішнього середовища. Така постійна адаптивність зумовлена зниженням ефективності традиційних підходів до управління торговельними процесами та просування продукції, які поступаються місцем інноваційним моделям, побудованим на принципах інформатизації та гнучкості. Таким чином, основною метою статті є розробка концептуальної основи інтеграції цифрових рішень у процеси ухвалення рішень у торгівлі та маркетингу, що дозволить підвищити адаптивність підприємств до викликів сучасного бізнес-середовища. За результатами дослідження доведено, що модель інформатизації торговельного менеджменту та маркетингових стратегій просування товарів і послуг виступає як структурно-організаційна система,*

*яка забезпечує комплексну цифрову трансформацію комерційної діяльності суб'єкта господарювання. Установлено, що в основі цієї моделі лежить інтеграція сучасних інформаційних технологій в управління торговельними процесами та інноваційних маркетингових підходів, спрямованих на підвищення ефективності просування продукції.Доведено, що така інтеграція дозволяє: підвищити конкурентоспроможність суб'єкта господарювання; оптимізувати внутрішні бізнес-процеси; забезпечити аналітичну підтримку управлінських рішень; реалізувати персоналізовані комунікації із цільовою аудиторією. Застосування моделі інформатизації торговельного менеджменту та маркетингових стратегій просування товарів і послуг в практиці суб'єктів господарювання сприяє формуванню та впровадженню інформаційно-керованих недеталізованих планів, які відповідають сучасним викликам цифрової економіки. Такий підхід забезпечує не лише автоматизацію та цифрову трансформацію основних бізнес-процесів, а й створення гнучкої системи управління, здатної оперативно реагувати на зміни зовнішнього середовища, поведінкові моделі споживачів і конкурентні дії. Завдяки поєднанню інструментів аналітики, персоналізації, багатоканальної комунікації та прогнозування, суб'єкти господарювання отримують можливість ухвалювати обґрунтовані управлінські рішення на основі реальних даних.*

***Keywords:*** *information-driven strategies; personalized communications; target audience; competitiveness; managerial decision support; marketing strategies.*

***Ключові слова****: інформаційно-керовані стратегії; персоналізовані комунікації; цільова аудиторія; конкурентоспроможність; підтримка управлінських рішень; маркетингові стратегії.*

***Problem statement.*** In the conditions of rapid evolution of digital technologies, swift market globalization, and intense competition, business entities are forced to continuously adapt their management systems and marketing

strategies to changes in the external environment. The need for such continuous adaptability is driven by the fact that traditional approaches to managing trade processes and promoting goods and services are losing their effectiveness, giving way to innovative models based on the principles of informatization and flexibility.

The flexibility of planning, organizing, motivating, and controlling processes becomes a key characteristic of effective trade management, as it enables prompt responses to changes in demand, consumer behavior, market trends, and technological progress. The flexibility of goods and services promotion processes is a crucial attribute of a business entity's ability to quickly adapt marketing tools, communication channels, the content of advertising messages, and customer interaction strategies according to current market conditions.

The outlined ability of the managerial and marketing subsystems of a business entity to quickly and effectively adapt to changes in external and internal conditions is based on informatization, which encompasses numerous tools that expand capabilities for managerial influence and operational adjustment of marketing campaigns, implementation of personalized approaches to target audiences, use of digital platforms for analyzing consumer behavior, and making data-driven decisions [3-4].

***Analysis of research and publications.*** Various issues of trade management and marketing strategies for promoting goods and services are discussed in the works of Ovsiienko N., Ovsiienko V. [4], Karpenko N.V., Ivannikova M.M., Yalovega N.I., Bilousko T.M., Zakharenko-Seleznyova A.M. [1], Mashika H., Zelic V., Kiziun A., Maslyhan R. [6], and others. In particular, scholars analyze issues related to optimizing trade activities in the context of digital transformation, the use of information and communication technologies in marketing, the development of effective distribution channels, personalization of communications with customers, the implementation of CRM and ERP systems in trade process management, as well as the adaptation of promotion strategies to the omnichannel environment.

At the same time, insufficient attention has been paid to developing an integrated model of informatization for trade management and marketing strategies

that emphasizes ensuring the flexibility of processes in the interconnection between analytical tools, managerial decisions, and practical market actions of the enterprise.

Such a model could serve as a foundation for developing effective tools for promoting goods and services and managing operations amid constant changes in the market environment and digital evolution.

***Formulation of the article's objectives*.** The main goal of the article is to develop a conceptual foundation for integrating digital solutions into decision-making processes in trade and marketing, which will contribute to enhancing the adaptability of enterprises to the challenges of the modern business environment.

***The paper main body.*** Within the scope of the research, the authors highlight the fact that the concept of informatization refers to the process of implementing and widely using information technologies (IT) and information and communication systems across various spheres of human activity, society, and the state, with the aim of effective management, knowledge exchange, productivity improvement, and the creation of an information society [5]. Accordingly, the model of informatization of trade management and marketing strategies for promoting goods and services is a structural and organizational system that integrates [4; 6]:

- modern information technologies in trade management;
- modern technologies for developing effective marketing strategies.

According to Figure 1, the described integration addresses the tasks of enhancing the enterprise's competitiveness, optimizing business processes, providing analytical support for decision-making, as well as personalizing communications with the target audience.

| Modern information technologies in trade management | Modern technologies for developing effective marketing strategies |
|---|---|
| *This refers to a set of software, technical, and communication solutions that ensure the automation, digitalization, and optimization of planning, organization, control, and analysis processes within a company's trade operations.* | *These are tools, methodologies, and digital platforms used for collecting, processing, and analyzing marketing data, developing strategic decisions, and implementing them with maximum efficiency in a competitive environment and digital economy.* |

**Model of Informatization**

**Objectives:**
Enhancing the competitiveness of business entities, optimizing business processes, providing analytical support for informed decision-making, and personalizing communications with the target audience.

**Figure 1. Model of informatization of trade management and marketing strategies for promoting goods and services**

*Source: compiled based on [4-6]*

It is important to emphasize that the outlined structure is defined as a **model** precisely because:

1. It not only has a structural and organizational design (that is, as noted by Sereda S. A., and Demydchuk L.B. [5], it contains clearly defined elements—information technologies, management processes, and marketing tools—and reflects the interconnections between them), but also integrates several subsystems (such as trade management, marketing, analytics, and customer interaction) into a single, coherent system with aligned goals and a unified logic of operation.

2. It is oriented toward achieving specific outcomes (namely, as demonstrated by Lazorenko T.V. [2], it is aimed at improving management efficiency, adapting to the digital environment, enhancing the level of customer service, and strengthening competitive advantages).

3. It relies on modern information systems and technologies as its foundation (Mashika, H., Zelic, V., Kiziun, A., Maslyhan, R., et al. emphasize the use of CRM, ERP, BI, artificial intelligence, and Big Data

[6]), which enables the implementation of strategic objectives in the context of digital transformation.

Therefore, the outlined model has an applied nature — it can be implemented, adapted, and utilized across various areas of commercial activity, meaning it is not purely theoretical but also practically oriented. It can be replicated and scaled, which is also a key characteristic of a model: it is not unique to a single enterprise but has the potential for broad application.

For example, the model can be effectively implemented in retail to automate sales, personalize offers, and analyze consumer behavior (through the integration of CRM and POS systems), as well as in the e-commerce sector to build omnichannel strategies, manage online stores, and apply Big Data and artificial intelligence technologies for demand forecasting [3]. The model can also be effectively applied in the service sector to improve customer experience, automate booking/scheduling processes, develop loyalty programs, and assess customer satisfaction.

Modern information technologies in trade management, within the framework of the model of informatization of trade management and marketing strategies for promoting goods and services, comprise a set of software, technical, and communication solutions that ensure the automation, digitalization, and optimization of the processes of planning, organizing, controlling, and analyzing a company's trade activities. Such technologies include:

- ERP systems (Enterprise Resource Planning);
- CRM systems (Customer Relationship Management);
- POS systems (Point of Sale);
- BI systems (Business Intelligence);
- E-commerce and Omnichannel systems;
- SCM systems (Supply Chain Management).

A detailed description of modern information technologies in trade management is provided by us in Table 1.

**Table 1. Characteristics of modern information technologies in trade management**

| Information technologies | Characteristics of technologies in trade management | Example of technology in trade management |
|---|---|---|
| ERP systems | Integrated enterprise resource management systems that provide centralized management of finance, procurement, sales, inventory, production, and personnel. | SAP (one of the most popular ERP systems used by large corporations), Microsoft Dynamics 365 (a flexible system for medium and large businesses with CRM integration capabilities), Oracle NetSuite (a cloud-based ERP for medium-sized businesses offering extensive resource management features). |
| CRM systems | Customer Relationship Management systems: managing customer databases, tracking purchase history, customizing personalized offers, automating marketing campaigns, and providing customer support. | Salesforce (a leading CRM system with powerful analytics and customization), Zoho CRM (an affordable and flexible platform for small and medium businesses), HubSpot (a user-friendly cloud CRM with free basic features and a strong marketing module). |
| POS systems | Software and hardware complexes for servicing sales at points of sale, automating cash operations, inventory accounting, discounts, and loyalty programs. | Poster (a Ukrainian cloud-based POS system for cafes, shops, and restaurants), Square (an American system offering hardware and software support for small businesses), Lightspeed (a POS system with advanced analytics capabilities and integration with e-commerce). |
| E-commerce and omnichannel systems | Tools for managing online sales and integrating multiple distribution channels (website, mobile app, social media, physical stores). | Shopify (a SaaS solution with a simple interface and a wide range of plugins), Magento (a flexible open-source platform suitable for large online stores), WooCommerce (a WordPress plugin for small and medium businesses). |
| SCM systems | Information systems for coordinating supplies, inventory control, logistics, and order fulfillment. | Oracle SCM Cloud (a cloud platform with modules for planning, order management, and transportation), SAP SCM (a powerful tool for planning and optimizing warehouse and logistics processes). |
| BI systems | Analytical platforms that enable visualization and analysis of trade data, demand forecasting, trend identification, evaluation of sales and marketing campaign effectiveness, and generation of reports for strategic management. | Power BI (a Microsoft tool that integrates with Excel, ERP systems, and cloud services), Tableau (a visual analytics system with a wide range of graphical capabilities), Qlik (a platform focused on big data processing and associative analysis). |

*Source: compiled based on [1-2; 6]*

In fact, in terms of their focus, modern IT in trade management ensures the digital transformation of the enterprise, cost reduction, increased process efficiency, and improved quality of customer service.

Modern technologies for developing effective marketing strategies, within the framework of the model of informatization of trade management and marketing strategies for promoting goods and services, constitute a set of tools, methods, and algorithms for collecting, processing, and analyzing marketing data, developing strategic decisions, and implementing them with maximum efficiency in a competitive environment and the digital economy. Among these technologies are:

- Big Data and data analytics;
- CRM marketing; platform-based digital marketing;
- Marketing Automation;
- AI and machine learning in marketing;
- Omnichannel communication;
- Customer journey mapping;
- A/B testing and multivariate analysis;
- Data-driven content marketing.

A detailed description of modern technologies for developing effective marketing strategies is provided by us in Table 2.

Modern marketing technologies enable a shift from intuitive promotion to scientifically grounded, analytically supported strategies, increasing the effectiveness of interaction with target segments, reducing costs, and boosting profitability.

Thus, the application of the informatization model of trade management and marketing strategies for the promotion of goods and services in the practice of business entities contributes to the formation and implementation of information-driven strategies that respond to the current challenges of the digital economy.

**Table 2. Characteristics of modern technologies for developing effective marketing strategies**

| Technologies for developing marketing strategies | Characteristics of technologies for developing effective marketing strategies | Приклад технологій формування ефективних маркетингових стратегій |
|---|---|---|
| Big Data and data analytics | The technology is based on processing large volumes of structured and unstructured data from various sources: CRM, web analytics, social media, transactional databases, and more.* | Analysis of customer databases, heatmap analysis of website behavior, consumer segmentation. |
| CRM marketing | It enables personalized communication with customers based on their purchase history, preferences, and demographic characteristics. It automates processes of customer acquisition, retention, and re-engagement through multichannel messaging, reminders, and special offers. CRM marketing also provides real-time campaign performance analysis. | Personalized email campaigns, automated reminders, promotions for specific segments. |
| Digital marketing platforms | These are toolsets that enable the implementation of digital strategies — from search engine optimization (SEO) to programmatic advertising. | Google Ads (for contextual advertising), Meta Business Suite (for managing social media ad campaigns), HubSpot (for CRM, email marketing, content management, SEO, analytics, and automation). |
| Marketing automation | It is used to automate routine marketing processes such as launching email campaigns, reactivating customers, sending reminders, and triggering actions based on specific events. | Automatic sending of an email for an abandoned cart, automated nurture campaign. |
| AI and machine learning marketing | [1]he application of AI for creating dynamic content, chatbots, predictive analytics, price optimization, and recommendation systems. | Netflix, Amazon, Spotify — personalized marketing based on AI. |
| Omnichannel communication | Ensuring a consistent and seamless customer experience across all channels: online, mobile, social media, email, and offline points of sale. All data is integrated into a single system. | Customer interaction on Instagram, callback from the call center, SMS confirmation, and in-store purchase. |
| Customer journey mapping | They enable the creation of customer journey maps, which allow for a detailed study of all the stages a consumer goes through — from awareness of the need to making a purchase and post-sale service. | UXPressia (online service for creating customer journey maps, personas, and emotions), Smaply (tool for service design and customer experience analysis), Miro (online whiteboard for team collaboration). |
| A/B testing and multivariate analysis | They allow for empirical testing of the effectiveness of different versions of advertisements, headlines, calls to action, landing pages, and so on. | A/B testing of two headline variants in a Facebook Ads campaign. |
| Data-driven content marketing | They enable the creation of content based on in-depth analysis of target audience queries, competitive environment, and behavioral metrics. | Writing SEO-optimized articles based on user search queries, creating videos for specific segments. |

*Source: compiled based on [1; 5-6]*

***Conclusions***. The research results demonstrate that the informatization model of trade management and marketing strategies for the promotion of goods and services is regarded as a structural and organizational system that ensures the comprehensive digital transformation of business entities' commercial activities.

It is stated that the outlined model is based on the integration of modern information technologies in the management of trade processes and innovative marketing technologies aimed at enhancing the effectiveness of goods and services promotion.

It has been proven that such integration enables: enhancing the business entities' competitiveness; optimizing internal business processes; providing analytical support for managerial decisions; implementing personalized communications with the target audience.

The application of the informatization model of trade management and marketing strategies for the promotion of goods and services in business entities' practice contributes to the development and implementation of information-driven, high-level plans that respond to the current challenges of the digital economy. This approach ensures not only the automation and digital transformation of core business processes but also the creation of a flexible management system capable of promptly responding to changes in the external environment, consumer behavior patterns, and competitive actions.

Thanks to the combination of analytics, personalization, multichannel communication, and forecasting tools, business entities gain the ability to make well-founded management decisions based on real data. This, in turn, contributes to improving the effectiveness of communications with the target audience, strengthening the business entity's market position, and forming sustainable competitive advantages in the digital economic transformation environment.

The prospects for further research lie in the development of practical mechanisms for adapting the informatization model to the specifics of industries, business scales, and the level of digital maturity of enterprises.

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