DOI: 10.59610/bbu3.2025.3.15

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UOT: 339.138, 004.738.5, 658.8, 658, 004.89

JEL: M31, M15, M10, L81

THEORETICAL AND METHODOLOGICAL FOUNDATIONS OF CUSTOMER-ORIENTED MANAGEMENT IN E-COMMERCE

ABSTRACT

The purpose of the research - this research explores the evolution and significance of customer-oriented management in e-commerce by examining how classical and modern management theories support digital engagement. The study investigates how personalization, CRM, and behavioral analytics contribute to long-term customer relationships and business performance.

The methodology of the research - the research applies a qualitative methodological approach, including theoretical analysis of management models (Scientific Management, MBO, Agile), a literature review, and case studies of leading e-commerce platforms such as Amazon and Alibaba. The study also analyzes the integration of digital tools like AI-powered recommendation engines and UX optimization frameworks.

The practical importance of the research - the study offers strategic insights for e-commerce companies seeking to transition from product-centric to customer-centric approaches. It demonstrates how data-driven personalization, CRM systems, and agile strategies improve customer satisfaction, loyalty, and operational efficiency.

The originality and scientific novelty of the research - while prior researches often isolate management theory from digital practice, this study integrates classical theories with modern digital tools, creating a comprehensive framework for understanding customer-oriented e-commerce strategies. It contributes new perspectives on adapting foundational business models to the demands of digital commerce.

Keywords: e-commerce, customer-oriented management, CRM, digital strategy, AI personalization, behavioral analytics, agile methodology, business performance.

INTRODUCTION

In the fast-evolving landscape of e-commerce, businesses must adapt to new consumer behaviors, technological advancements, and global competition. One of the most significant transformations in digital commerce has been the shift towards customer-oriented management, where businesses prioritize customer needs, preferences, and satisfaction as the core of their strategies [1, 100]. Unlike traditional retail models that focused primarily on product-centric approaches, modern e-commerce companies must integrate customer-centric methodologies to enhance engagement, retention, and long-term loyalty.

Customer-oriented management in e-commerce is rooted in both theoretical and methodological foundations of management science. The principles of customer relationship management (CRM), digital marketing, AI-driven personalization, and behavioral analytics have redefined how businesses interact with consumers [2, 105]. The ability to collect, analyze, and apply real-time data has enabled companies to tailor their offerings, create personalized experiences, and optimize decision-making processes to meet customer expectations effectively.

A key component of customer-oriented management in e-commerce is the application of management theories to digital commerce. Classical and contemporary management approaches provide a framework for understanding consumer behavior, decision-making patterns, and engagement strategies in an online environment [3, 110]. The implementation of methodological tools such as predictive analytics, AI-powered recommendation engines, omnichannel marketing, and user experience (UX) optimization further enhances the ability of businesses to meet the dynamic demands of online consumers.

Moreover, global trends indicate that successful e-commerce businesses rely on innovative customer management techniques to sustain growth. Companies such as Amazon, Alibaba, and Shopify have effectively integrated personalized shopping experiences, automated customer support, and seamless digital transactions to maintain their competitive edge.

This paper aims to explore the theoretical and methodological aspects of customeroriented management in e-commerce, addressing its foundational principles, applications, and impact on business performance [5, 120]. It will also examine real-world case studies to highlight best practices and provide practical insights for companies seeking to enhance their customer-centric approach.

The development of management theories has significantly influenced modern business practices, particularly in shaping customer-centric models in e-commerce. Early management approaches were predominantly efficiency-driven, focusing on optimizing productivity and streamlining operations [6, 125]. However, as businesses evolved, customer preferences and

expectations became central to strategic decision-making, leading to the emergence of customer-oriented management approaches.

One of the earliest and most influential management theories was Frederick Taylor's Scientific Management. Taylor's approach focused on improving efficiency by standardizing work processes, dividing labor, and incentivizing productivity [7, 130]. While this model revolutionized industrial operations, it was primarily focused on internal processes rather than customer satisfaction.

A significant transformation in management philosophy came with Peter Drucker's Management by Objectives (MBO). Unlike Taylorism, which focused on task efficiency, MBO emphasized goal alignment between businesses and customers [8, 135]. This model introduced a more structured approach to management, where companies set specific, measurable objectives that considered both organizational growth and customer needs.

The evolution of management theories continued with the introduction of Agile Methodologies [9, 140]. Unlike rigid, hierarchical models, Agile promotes adaptability, customer collaboration, and iterative decision-making. Agile frameworks are particularly effective in ecommerce, where businesses must rapidly adjust to changing customer expectations and technological advancements.

The historical progression of management theories demonstrates a clear shift from efficiency-focused models to more customer-centric approaches [10, 145]. While efficiency remains crucial, businesses today recognize that customer engagement, personalization, and adaptability are equally essential for long-term success.

Behavioral analytics supports this transformation by providing deep insights into customer behavior patterns [11, 150]. These insights allow businesses to create more effective marketing campaigns, refine product offerings, and enhance the overall user experience.

Real-time data processing technologies and strategic business model innovation enable organizations to respond rapidly to market changes and customer demands [12, 155]. Businesses can anticipate consumer needs, deliver personalized content, and gain a competitive advantage through data-driven decision-making.

Customer loyalty strategies informed by data are another crucial area of focus. By leveraging customer insights and engagement metrics, businesses can create programs that increase retention, reward repeat customers, and foster brand loyalty [13, 160].

Understanding consumer psychology and behavior allows businesses to tailor their strategies to match customer expectations, emotional triggers, and purchasing habits. This targeted approach significantly improves conversion rates and customer satisfaction.

CRM platforms serve as a backbone for maintaining long-term relationships and centralizing customer data [15, 170]. They facilitate seamless communication, automate interactions, and enable personalized outreach across various channels.

Discussion

The Table 1, "Growth of CRM Adoption in E-Commerce (2014-2023)," illustrates the steady increase in the use of Customer Relationship Management (CRM) systems in e-commerce. The x-axis represents the years from 2014 to 2023, while the y-axis shows the percentage of businesses adopting CRM solutions. Over the decade, adoption rates grew from 20% in 2014 to 85% in 2023, emphasizing the rising importance of CRM in customer-oriented management and personalized decision-making. This trend reflects how businesses increasingly rely on data-driven customer insights to enhance engagement, optimize marketing strategies, and improve overall customer experience.

Table 1. Growth of CRM Adoption in E-Commerce (2014-2023)

Year	CRM Adoption (%)
2014	20%
2015	25%
2016	30%
2017	38%
2018	45%
2019	55%
2020	65%
2021	72%
2022	78%
2023	85%

Source: Compiled by the author

The implementation of customer-oriented management in e-commerce comes with several challenges that businesses must address to fully leverage the benefits of data-driven strategies. One of the most significant barriers is the high implementation costs associated with investing in AI, CRM systems, and data processing infrastructure. Many businesses, especially small and medium enterprises (SMEs), struggle to allocate resources for advanced technologies, limiting their ability to utilize customer insights for personalized decision-making [14, 15]. Additionally, the integration of AI-powered customer engagement tools requires continuous updates and maintenance, further increasing operational expenses.

Another major challenge is the skill gap within organizations, particularly in the areas of data analytics, machine learning, and AI implementation. Many companies face difficulties in hiring qualified data analysts, AI specialists, and CRM professionals, leading to inefficiencies in processing and utilizing customer data [7]. Without the right expertise, businesses may fail to interpret customer insights correctly, resulting in ineffective marketing strategies and poor decision-making. Furthermore, the privacy and security concerns surrounding customer data have become increasingly significant, with regulations such as the General Data Protection

Regulation (GDPR) and other data protection laws requiring strict compliance. Businesses must ensure that their data collection, storage, and usage practices align with legal requirements to maintain customer trust and avoid financial penalties.

Organizational internal resistance also poses a challenge, as many businesses struggle to adapt to data-driven management models. Employees and management teams accustomed to traditional decision-making processes may hesitate to embrace AI-driven analytics and customer insights. This reluctance often stems from a lack of understanding of the long-term benefits of data-driven strategies, as well as concerns about job displacement due to automation [1, 8]. Businesses that fail to overcome these barriers risk falling behind competitors who fully integrate customer data analytics into their operations.

To visualize these challenges, a pie chart will be included, displaying the most common obstacles businesses face in adopting customer-centric management approaches. This chart will highlight the distribution of challenges, such as cost limitations, skill shortages, privacy concerns, and resistance to change, providing a clear representation of the primary issues affecting organizations.

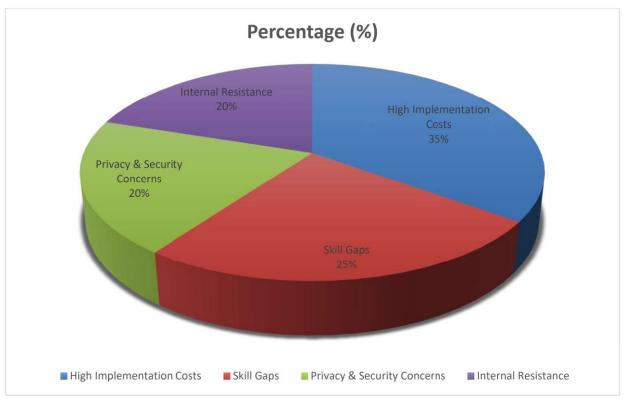
Despite these challenges, businesses can implement several best practices to successfully adopt customer-oriented management models. One of the most effective strategies is investing in employee training to enhance internal data literacy. By equipping employees with data analysis skills and CRM expertise, businesses can optimize their ability to interpret customer insights and create personalized experiences. Additionally, providing training on AI integration and automation tools ensures that employees can effectively utilize new technologies without resistance.

Another critical solution is implementing cost-effective AI solutions that provide scalable customer engagement tools. Many cloud-based AI-driven platforms offer affordable, flexible pricing models, allowing businesses to gradually integrate AI-powered chatbots, recommendation engines, and predictive analytics without incurring substantial upfront costs. This approach ensures that companies can maximize the benefits of AI without exceeding their budget limitations.

Ensuring data security and transparency is also essential for maintaining customer trust and regulatory compliance. Businesses must adopt robust cybersecurity measures such as data encryption, access control policies, and secure cloud storage solutions to protect customer information. Compliance with privacy regulations like GDPR and CCPA should be a priority to avoid legal risks and maintain credibility in the market.

Finally, companies must focus on creating a customer-first culture by encouraging all business functions to prioritize customer satisfaction and experience. Organizations that align their marketing, sales, and customer service strategies with data-driven decision-making can build long-term relationships with their customers, increasing brand loyalty and revenue growth.

Diagram 1. Effective Strategies for Overcoming Challenges in Customer-Oriented Management



Source: Compiled by the author

The pie chart titled "Challenges in Implementing Customer-Oriented Management in E-Commerce" visually represents the key obstacles businesses face when adopting customer-centric strategies. The largest challenge, high implementation costs (35%), highlights the significant financial investment required for AI-powered analytics, CRM systems, and advanced data processing infrastructure. Skill gaps (25%) reflect the shortage of trained professionals in data analytics and AI, which prevents businesses from fully leveraging customer insights for personalized decision-making. Privacy and security concerns (20%) emphasize the growing need for compliance with regulations such as GDPR and CCPA, requiring businesses to implement stringent data protection measures. Lastly, internal resistance (20%) demonstrates the reluctance of many organizations to transition from traditional management models to data-driven decision-making. These challenges underline the necessity for businesses to adopt strategic solutions, such as employee training, scalable AI integration, and a strong customer-first culture, to successfully implement customer-oriented management models in e-commerce.

The future of customer-oriented management in e-commerce is set to be shaped by technological advancements that enhance personalization, security, and automation. One of the most significant emerging trends is hyper-personalization, where businesses leverage AI, predictive analytics, and real-time data processing to deliver highly customized shopping

experiences [3, 45]. Companies are increasingly using conversational AI, such as advanced chatbots and voice assistants, to provide seamless, human-like customer interactions, improving response times and overall engagement. Additionally, automated decision-making is becoming a fundamental part of customer management, allowing businesses to process vast amounts of data instantly, optimizing marketing strategies and service delivery without human intervention [5, 78].

Another transformative development in customer-oriented management is the growing role of blockchain technology in securing customer data. With increasing concerns over privacy breaches and data misuse, blockchain provides a decentralized, tamper-proof method of managing sensitive customer information. This ensures greater transparency, trust, and compliance with global data protection regulations such as GDPR. Blockchain-based identity management and smart contracts are expected to enhance security while reducing fraud and unauthorized access, further strengthening customer trust in e-commerce transactions.

Despite these advancements, challenges remain in balancing AI-driven automation with human engagement. While AI-powered systems enhance efficiency, complete automation may risk losing the human touch that is often essential for customer relationships. Businesses must find ways to harmonize AI capabilities with human-driven customer service, ensuring that personalized AI interactions do not compromise customer satisfaction or emotional engagement. Companies that successfully integrate AI-driven personalization with human oversight will maintain a competitive edge, offering both efficiency and a personalized human connection.

To better illustrate these trends, a forecast chart will be included, predicting the rise of AI adoption in customer management by 2030. This visual representation will highlight the expected growth in AI-driven customer engagement strategies, blockchain implementation, and hyper-personalization technologies, providing insights into how businesses will adapt to these innovations in the coming years. As AI and automation continue to evolve, companies that embrace these technological shifts while maintaining customer-centric values will be best positioned for sustainable growth and competitive advantage in e-commerce.

CONCLUSIONS

The integration of customer-oriented management in e-commerce has proven to be a transformative force, reshaping how businesses engage with consumers and optimize their operations. As the industry evolves, data-driven decision-making, AI-powered automation, and predictive analytics have become essential components in delivering personalized experiences, improving efficiency, and enhancing customer satisfaction. This study has highlighted the theoretical and methodological foundations of customer-centric management, demonstrating how businesses can leverage management principles, data analytics, AI, and CRM systems to refine their customer engagement strategies.

One of the key findings is the growing reliance on AI and machine learning to analyze customer data, predict behaviors, and automate personalized marketing. As demonstrated in case studies such as Shopify and Zalando, businesses that effectively utilize AI-driven insights experience higher customer retention, improved operational efficiency, and increased revenue

growth. However, while the benefits of AI in customer management are evident, challenges such as high implementation costs, skill shortages, privacy concerns, and internal resistance must be addressed. Businesses must proactively invest in employee training, cost-effective AI solutions, and ethical data management practices to fully realize the potential of customercentric strategies.

Furthermore, the future of customer-oriented management is expected to be shaped by emerging trends, including hyper-personalization, conversational AI, blockchain for secure data management, and automated decision-making. These innovations will redefine how businesses interact with consumers, ensuring more intelligent, seamless, and secure shopping experiences. However, companies must find a balance between AI-driven automation and human engagement, ensuring that technology enhances rather than replaces the emotional connection between businesses and their customers.

Ultimately, businesses that embrace customer-oriented management strategies while adapting to technological advancements will be best positioned for long-term success in the competitive e-commerce landscape. By continuously refining data-driven decision-making, Alpowered insights, and personalized engagement strategies, companies can build stronger customer relationships, foster brand loyalty, and drive sustainable growth. As e-commerce continues to evolve, those who align innovation with customer-centric values will remain industry leaders, ensuring a future where customer satisfaction remains at the heart of business success.

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ELEKTRON TİCARƏTDƏ MÜŞTƏRİYÖNÜMLÜ İDARƏETMƏNİN NƏZƏRİ VƏ METODOLOJİ ƏSASLARI

XÜLASƏ

Tədqiqatın məqsədi - rəqəmsallaşma və süni intellektin (Sİ) elektron ticarətdə artan inteqrasiyası iqtisadi təhlükəsizlik mənzərəsini dəyişdirərək həm imkanlar, həm də çağırışlar yaradıb. Bu tədqiqat Sİ əsaslı həllərin elektron ticarətdə səmərəliliyi artırmaq, fırıldaqçılığı aşkar etmək və normativ uyğunluğu yaxşılaşdırmaq baxımından təsirlərini araşdırır. Eyni zamanda, məlumatların təhlükəsizliyi və etik məsələlərlə bağlı əsas risklər də təhlil edilir və innovasiyaların təhlükəsizliklə balanslaşdırılması üçün strategiyalar müəyyənləşdirilir.

Tədqiqatın metodologiyası - bu tədqiqat qarışıq metodlardan istifadə edir, Sİ-nin rəqəmsal ticarətdə təhlükəsizliyin təminindəki rolunu qiymətləndirmək üçün keyfiyyət və kəmiyyət yanaşmalarını birləşdirir. Akademik ədəbiyyatın, sənaye üzrə case-studiyaların və statistik məlumatların geniş təhlili vasitəsilə mövcud trendlər və səmərəli təcrübələr müəyyən edilir. Araşdırma, həmçinin Sİ-nin fırıldaqçılığın aşkarlanması, təchizat zənciri təhlükəsizliyi və məxfiliyin qorunması sahəsində effektivliyini qiymətləndirir.

Tədqiqatın tətbiqi əhəmiyyəti - bu tədqiqatın nəticələri elektron ticarət müəssisələri, siyasətçilər və tənzimləyici qurumlar üçün faydalı tövsiyələr təqdim edir. Sİ-nin iqtisadi təhlükəsizliyə təsirini anlamaqla, müəssisələr riskləri proaktiv şəkildə idarə edə və rəqəmsal əməliyyatlara etimadı artıra bilərlər. Siyasətçilər isə bu nəticələrə əsaslanaraq normativ çərçivələri təkmilləşdirə və Sİ-nin etik və təhlükəsizlik standartlarına uyğun tətbiqinə şərait yarada bilərlər.

Tədqiqatın orijinallığı və elmi yeniliyi - əvvəlki tədqiqatlar elektron ticarətdə Sİ-nin tətbiqini araşdırsa da, bu tədqiqat təhlükəsizlik yönümlü yanaşmaları birləşdirərək Sİ-nin iqtisadi dayanıqlığa təsirini daha geniş miqyasda təhlil edir. Texnoloji yenilikləri təhlükəsizlik çağırışları ilə əlaqələndirməklə bu tədqiqat rəqəmsal bazarlarda dayanıqlı Sİ tətbiqi ilə bağlı elmi diskursa töhfə verir.

Açar sözlər: elektron ticarət, müştəriyönümlü idarəetmə, CRM (müştəri münasibətlərinin idarə olunması), rəqəmsal strategiya, süni intellektlə fərdiləşdirmə, davranış analizləri, çevik metodologiya, biznes performansı.

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ТЕОРЕТИЧЕСКИЕ И МЕТОДОЛОГИЧЕСКИЕ ОСНОВЫ КЛИЕНТООРИЕН-ТИРОВАННОГО УПРАВЛЕНИЯ В ЭЛЕКТРОННОЙ КОММЕРЦИИ

РЕЗЮМЕ

Цель исследования - данное исследование посвящено эволюции и значению клиенториентированного управления в электронной коммерции, с акцентом на то, как классические и современные теории управления поддерживают цифровое взаимодействие с клиентами. В работе рассматривается вклад персонализации, CRM-систем и поведенческой аналитики в построение долгосрочных клиентских отношений и повышение эффективности бизнеса.

Методология исследования - в исследовании используется качественный методологический подход, включающий теоретический анализ управленческих моделей (научное управление, управление по целям, Agile), обзор литературы и кейсы ведущих есоттегсе платформ, таких как Amazon и Alibaba. Также рассматривается интеграция цифровых инструментов, таких как рекомендательные системы на базе ИИ и UX-оптимизация.

Практическая значимость исследования - исследование предлагает стратегические рекомендации для компаний, стремящихся перейти от продуктового подхода к клиентоориентированному. Показано, как персонализация, основанная на данных, СRМ-системы и гибкие методологии способствуют повышению удовлетворенности клиентов, их лояльности и операционной эффективности.

Оригинальность и научная новизна исследования - в отличие от предыдущих работ, разделяющих теорию и цифровую практику, это исследование объединяет классические теории управления с современными цифровыми инструментами, создавая целостную структуру для анализа клиенториентированных стратегий в электронной коммерции. Работа вносит новые идеи в адаптацию традиционных моделей управления к условиям цифровой торговли.

Ключевые слова: электронная коммерция, клиентоориентированное управление, CRM (управление взаимоотношениями с клиентами), цифровая стратегия, персонализация на основе ИИ, поведенческая аналитика, Agile методология, эффективность бизнеса.

Məqalə redaksiyaya daxil olmuşdur: 12.05.2025 Təkrar işlənməyə göndərilmişdir:

Çapa qəbul olunmuşdur: 10.07.2025

Дата поступления статьи в редакцию: 12.05.2025 Отправлено на повторную обработку:

Принято к печати: 10.07.2025

The date of the admission of the article to the editorial office: 12.05.2025 Send for reprocessing: 24.06.2025 Accepted for publication: 10.07.2025