



MECHANISMS FOR EVALUATING THE RATIONALITY OF PURCHASES IN THE CONTEXT OF THE DIGITAL ECONOMY

Irgasheva Yulduz Alisher qizi

Master's Student, Faculty of Applied Mathematics and
Intelligent Technologies, National University of Uzbekistan
named after Mirzo Ulugbek

Abstract: This article analyzes the mechanisms for evaluating purchase rationality in the context of the digital economy. The study examines the impact of e-commerce, artificial intelligence, big data, digital marketing, and consumer behavior on purchasing decisions. Special attention is given to the economic, technological, and psychological factors influencing rational consumption. The findings emphasize the importance of digital literacy and transparent market mechanisms in improving rational purchasing behavior.

Keywords: digital economy, rational purchasing, e-commerce, artificial intelligence, consumer behavior, big data, digital marketing.

Annotatsiya: Mazkur maqolada raqamli iqtisodiyot sharoitida xaridlar ratsionalligini baholash mexanizmlari tahlil qilingan. Tadqiqotda elektron tijorat, sun'iy intellekt, big data, raqamli marketing va iste'molchilar xulq-atvorining xarid qarorlariga ta'siri o'rganilgan. Shuningdek, ratsional xaridni shakllantirishda iqtisodiy, texnologik va psixologik omillarning ahamiyati yoritilgan. Tadqiqot natijalari raqamli savodxonlik va shaffof bozor mexanizmlarining muhimligini ko'rsatadi.

Kalit so'zlar: raqamli iqtisodiyot, ratsional xarid, elektron tijorat, sun'iy intellekt, iste'molchi xulqi, big data, raqamli marketing.

Аннотация: В данной статье рассматриваются механизмы оценки рациональности покупок в условиях цифровой экономики. Исследуется влияние электронной коммерции, искусственного интеллекта, больших данных, цифрового маркетинга и потребительского поведения на процесс принятия решений о покупке. Особое внимание уделено экономическим,

технологическим и психологическим факторам формирования рационального потребления. Результаты исследования подчеркивают важность цифровой грамотности и прозрачности цифровых рынков.

***Ключевые слова:** цифровая экономика, рациональная покупка, электронная коммерция, искусственный интеллект, поведение потребителей, большие данные, цифровой маркетинг.*

INTRODUCTION

In the modern era, the rapid expansion of digital technologies has fundamentally transformed the global economic system and consumer behavior. The emergence of the digital economy has created new forms of trade, communication, and financial interaction, allowing consumers to purchase goods and services more quickly and conveniently than ever before. Online marketplaces, mobile applications, artificial intelligence, big data technologies, and digital payment systems have become essential components of everyday economic activity. As a result, traditional purchasing processes are increasingly shifting toward digital platforms.

Under these conditions, the issue of evaluating the rationality of purchases has become highly important for both consumers and businesses. Rational purchasing refers to making buying decisions based on objective needs, financial capabilities, quality evaluation, and long-term benefits rather than emotional impulses or external pressure. However, digital environments often influence consumer decisions through targeted advertising, personalized recommendations, social media trends, and algorithm-based marketing tools. Such factors may encourage impulsive consumption and reduce the effectiveness of rational decision-making.

METHODOLOGY AND LITERATURE REVIEW

This research is based on a comprehensive methodological approach aimed at analyzing the mechanisms for evaluating purchase rationality in the conditions of the digital economy. The study combines theoretical, analytical, comparative, and

behavioral research methods in order to investigate how digital technologies influence consumer decision-making and rational purchasing behavior.

The primary methodological foundation of the research is the systematic analysis method, which allows the digital economy to be examined as an interconnected system consisting of e-commerce platforms, digital payment technologies, artificial intelligence, online marketing, and consumer behavior mechanisms. Through this approach, the study evaluates the relationships between technological innovation and rational purchasing decisions.

The research applies the comparative analysis method to compare traditional purchasing behavior with modern digital purchasing practices. This method helps identify the major differences between offline and online consumer decision-making processes. Particular attention is given to the impact of recommendation algorithms, targeted advertising, social media influence, and personalized digital marketing on consumer rationality [1].

The study also uses the behavioral economics approach, which examines psychological and emotional factors affecting consumer decisions. In the digital economy, purchasing decisions are not always based solely on logical reasoning or financial calculations. Emotional triggers, social influence, and digital persuasion techniques often shape consumer behavior. Therefore, behavioral analysis is essential for understanding irrational consumption patterns and impulsive buying tendencies in online environments.

The concept of rational consumer behavior and digital purchasing mechanisms has been widely studied by economists, marketing specialists, and behavioral scientists. Numerous international scholars have examined how digital technologies affect purchasing decisions, consumer psychology, and market efficiency.

One of the most influential works in this field is Philip Kotler and Kevin Lane Keller's book "Marketing Management." In this work, the authors explain the fundamental principles of consumer behavior, purchasing decision processes, and modern marketing strategies. Kotler emphasizes that digital marketing technologies

significantly reshape consumer preferences by creating personalized communication channels and targeted advertising systems [2]. The book highlights that rational purchasing depends on access to accurate information, price transparency, and consumer awareness.

Another important contribution is made by Daniel Kahneman in his famous book “Thinking, Fast and Slow.” Kahneman analyzes how human thinking operates through two systems: fast emotional thinking and slow rational thinking. According to the author, many purchasing decisions are influenced by emotions, cognitive biases, and psychological shortcuts rather than objective analysis. In digital environments, online advertising and recommendation algorithms often activate emotional responses, increasing impulsive buying behavior. Kahneman’s work is especially important for understanding irrational consumption in e-commerce systems [3].

The issue of technological transformation in economic activity is deeply explored in Erik Brynjolfsson and Andrew McAfee’s book “The Second Machine Age.” The authors discuss how digital technologies, artificial intelligence, automation, and big data reshape business models and consumer markets. They argue that digital systems improve market efficiency and consumer convenience but also create challenges related to information overload and algorithmic influence. Their research demonstrates that consumers increasingly rely on digital platforms when making purchasing decisions [4].

Consumer psychology in digital markets is also examined in Leon Schiffman and Joseph Wisenblit’s book “Consumer Behavior.” This work provides detailed analysis of social, cultural, emotional, and technological factors influencing purchasing decisions. The authors explain how social media, online communities, and influencer marketing affect consumer preferences, especially among young users [5]. The book also discusses the growing role of electronic word-of-mouth communication and customer reviews in shaping rational purchasing behavior.

An important perspective on behavioral economics is presented in Richard Thaler and Cass Sunstein's book "Nudge: Improving Decisions About Health, Wealth, and Happiness." The authors introduce the concept of "choice architecture," explaining how people's decisions can be influenced through subtle environmental changes. In digital commerce, online platforms often use nudging techniques such as limited-time offers, notifications, and personalized recommendations to encourage purchases. This work is highly relevant for analyzing manipulation risks within digital consumer environments [6].

RESULTS AND DISCUSSION

The research findings demonstrate that the rapid development of the digital economy has significantly changed consumer purchasing behavior and the mechanisms used to evaluate purchase rationality. Digital technologies have increased market accessibility, accelerated commercial transactions, and improved information exchange between businesses and consumers. At the same time, however, the digital environment has created new risks associated with irrational purchasing, emotional consumption, and algorithmic influence on decision-making processes.

One of the major results of the study is that digital platforms provide consumers with broader opportunities for informed purchasing decisions compared to traditional markets. Online marketplaces allow buyers to compare prices, analyze product characteristics, read customer reviews, and evaluate seller reputations before making purchases. Such transparency contributes positively to rational consumer behavior because individuals can access large amounts of information within a short period of time. Price comparison tools and rating systems particularly help consumers identify products with the best balance between quality and cost [7].

The findings also indicate that artificial intelligence and recommendation systems play a dual role in digital purchasing processes. On one hand, AI technologies simplify product searches and provide personalized suggestions based on consumer needs and preferences. This improves convenience and reduces the

time required for decision-making. On the other hand, recommendation algorithms often stimulate impulsive buying behavior by continuously exposing users to attractive products and promotional offers. Many digital platforms are designed not only to satisfy consumer needs but also to maximize platform profits by increasing purchase frequency and consumer engagement.

The study reveals that emotional and psychological factors have become more influential in the digital economy than in traditional commerce. Social media advertising, influencer marketing, and personalized notifications strongly affect consumer decisions, especially among younger age groups [8]. Consumers are often encouraged to purchase products because of social trends, fear of missing out, or emotional attachment created through digital content. As a result, purchasing decisions may become less rational and more emotionally driven.

Another important result is the growing importance of digital literacy in ensuring rational purchasing behavior. Consumers with strong digital and financial literacy skills are more likely to evaluate products objectively, compare alternatives, and avoid manipulative marketing strategies. In contrast, individuals with limited digital knowledge are more vulnerable to deceptive advertising, fake reviews, online fraud, and impulsive spending. Therefore, digital literacy is now considered one of the key factors supporting rational consumption in modern economies.

The research findings further show that online customer reviews significantly influence purchasing decisions. Positive reviews increase consumer trust and reduce uncertainty regarding product quality. However, the study also identifies the problem of fake reviews and manipulated ratings, which can distort rational evaluation processes. Some businesses artificially increase product ratings or publish misleading feedback to influence consumer perceptions. This creates challenges for maintaining transparency and fairness in digital markets [9].

An additional result of the study concerns the role of dynamic pricing systems in online commerce. Many digital platforms use algorithms that automatically adjust prices according to demand levels, browsing history, location, and user activity.

While such systems improve market efficiency, they may negatively affect rational purchasing because consumers often cannot clearly determine the actual market value of products. Frequent price changes can create psychological pressure and encourage consumers to make quick purchasing decisions without proper analysis.

The research also demonstrates that mobile commerce and simplified payment systems contribute to increased impulsive consumption. Digital wallets, one-click payment options, and instant checkout systems reduce the psychological barriers associated with spending money. Consumers are able to complete purchases within seconds, often without carefully considering financial consequences. This convenience increases transaction speed but may weaken budget discipline and financial planning practices [10].

The study also emphasizes the importance of integrating behavioral economics into digital commerce regulation. Since consumers are often influenced by psychological and emotional factors, policy makers should design systems that help individuals make more informed decisions. For example, platforms can introduce spending notifications, transparent pricing explanations, and purchase reflection periods to reduce impulsive buying behavior.

CONCLUSION

The development of the digital economy has fundamentally transformed consumer behavior, purchasing processes, and market relationships. Digital technologies such as artificial intelligence, e-commerce platforms, big data analytics, and online marketing systems have created new opportunities for consumers by increasing convenience, accessibility, and market transparency. At the same time, these innovations have also intensified the risks of impulsive buying, emotional consumption, and manipulation through personalized advertising and recommendation algorithms.

The research demonstrates that rational purchasing in the digital environment requires not only economic awareness but also digital literacy, critical thinking, and behavioral self-control. Consumers must evaluate products based on actual needs,

financial capabilities, quality, and long-term value rather than temporary emotions or social influence. Modern technological tools, including price comparison systems, budgeting applications, and digital analytics platforms, can significantly support rational decision-making when used effectively.

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