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05.01.00 – Axborot texnologiyalari, boshqaruv va kompyuter grafikasi
05.01.01 – Muhandislik geometriyasi va kompyuter grafikasi. Audio va video texnologiyalari
05.01.02 – Tizimli tahlil, boshqaruv va axborotni qayta ishlash
05.01.03 – Informatikaning nazariy asoslari
05.01.04 – Hisoblash mashinalari, majmualari va kompyuter tarmoqlarining matematik va dasturiy ta'minoti
05.01.05 – Axborotlarni himoyalash usullari va tizimlari. Axborot xavfsizligi
05.01.06 – Hisoblash texnikasi va boshqaruv tizimlarining elementlari va qurilmalari
05.01.07 – Matematik modellashtirish
05.01.11 – Raqamli texnologiyalar va sun'iy intellekt
05.02.00 – Mashinasozlik va mashinashunoslik
05.02.08 – Yer usti majmualari va uchish apparatlari
05.03.02 – Metrologiya va metrologiya ta'minoti
05.04.01 – Telekommunikasiya va kompyuter tizimlari, telekommunikasiya tarmoqlari va qurilmalari. Axborotlarni taqsimlash
05.05.03 – Yorug'lik texnikasi. Maxsus yoritish texnologiyasi
05.05.05 – Issiqlik texnikasining nazariy asoslari
05.05.06 – Qayta tiklanadigan energiya turlari asosidagi energiya qurilmalari
05.06.01 – To'qimachilik va yengil sanoat ishlab chiqarishlari materialshunosligi
05.08.03 – Temir yo'l transportini ishlatish
05.08.06 – "G'ildirakli va gusenisali mashinalar va ularni ishlatish" (texnika fanlari)
05.09.01 – Qurilish konstruksiyalari, bino va inshootlar
05.09.04 – Suv ta'minoti. Kanalizatsiya. Suv havzalarini muhofazalovchi qurilish tizimlari
10.00.06 – Qiyosiy adabiyotshunoslik, chog'ishtirma tilshunoslik va tarjimashunoslik
10.00.04 – Yevropa, Amerika va Avstraliya xalqlari tili va adabiyoti
08.00.01 – Iqtisodiyot nazariyasi
08.00.02 – Makroiqtisodiyot
08.00.03 – Sanoat iqtisodiyoti
08.00.04 – Qishloq xo'jaligi iqtisodiyoti
08.00.05 – Xizmat ko'rsatish tarmoqlari iqtisodiyoti
08.00.06 – Ekonometrika va statistika
08.00.07 – Moliya, pul muomalasi va kredit
08.00.08 – Buxgalteriya hisobi, iqtisodiy tahlil va audit
08.00.09 – Jahon iqtisodiyoti
08.00.10 – Demografiya. Mehnat iqtisodiyoti
08.00.11 – Marketing
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08.00.13 – Menejment
08.00.14 – Iqtisodiyotda axborot tizimlari va texnologiyalari
08.00.15 – Tadbirkorlik va kichik biznes iqtisodiyoti
08.00.16 – Raqamli iqtisodiyot va xalqaro raqamli integratsiya
08.00.17 – Turizm va mehmonxona faoliyati

Ma'lumot uchun, OAK Rayosatining 2024-yil 28-avgustdagi 360/5-son qarori bilan "Dissertatsiyalar asosiy ilmiy natijalarini chop etishga tavsiya etilgan milliy ilmiy nashrlar ro'yxati"ga texnika va iqtisodiyot fanlari bo'yicha "Muhandislik va iqtisodiyot" jurnali ro'yxatga kiritilgan.

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MUNDARIJA

THE IMPACT OF BUY NOW, PAY LATER SERVICES ON E-COMMERCE SALES

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Abstract. This thesis examines the impact of Buy Now, Pay Later (BNPL) services on e-commerce sales in the context of the rapid development of digital commerce and embedded financial services. The relevance of the study is determined by the growing integration of installment payment solutions into online marketplaces and their increasing role in consumer purchasing decisions. Particular attention is paid to the mechanisms through which BNPL can influence purchase accessibility, conversion rates, average order value, purchase frequency, customer acquisition, and overall e-commerce sales. The study applies a descriptive and analytical approach based on academic literature, institutional reports, regulatory documents, and official statistical information. The analysis also considers the development of BNPL within Uzbekistan's expanding digital commerce ecosystem and emphasizes the importance of transparent financing conditions, responsible credit assessment, consumer protection, and financial sustainability. The findings indicate that, when implemented responsibly, BNPL can serve as an effective financial and marketing instrument for supporting e-commerce growth and improving consumer access to products.

Keywords: Buy Now, Pay Later (BNPL), e-commerce, installment payments, digital payments, consumer behavior, online sales, average order value, conversion rate, embedded finance, Uzbekistan.

INTRODUCTION

Digital transformation has changed the way consumers search for products, compare prices, communicate with sellers, make purchasing decisions, and complete transactions. E-commerce platforms are no longer limited to providing an online catalogue of products. Modern digital commerce integrates logistics, digital marketing, electronic payments, customer analytics, financial services, and personalized recommendations into a single ecosystem.

Payment methods have become particularly important in this transformation. Consumers expect online transactions to be fast, convenient, secure, and financially accessible. Traditional payment methods, such as cash, debit cards, and credit cards, have therefore been supplemented by digital wallets, mobile payment applications, and various forms of embedded finance.

One of the fastest-growing forms of embedded finance is the Buy Now, Pay Later (BNPL) model. BNPL allows consumers to receive a product immediately while dividing its cost into several future payments. Depending on the provider and market, installments may be interest-free or subject to additional financing charges. In the typical model, the financing service pays the merchant, while the customer repays the obligation according to an agreed schedule. In practice, BNPL combines payment functionality, short-term consumer credit, and digital checkout convenience.

For e-commerce businesses, BNPL is not merely a payment method. It is increasingly used as a marketing and sales instrument. When customers are unable or prefer not to pay the full price of a product immediately, installment payments can reduce the financial barrier to completing the transaction. As a result, customers may purchase higher-value products, increase the number of products in their shopping baskets, or make purchases earlier than originally planned.

The relevance of this issue is particularly significant in countries experiencing rapid digitalization. Uzbekistan represents such a market, where online marketplaces, digital banking, mobile payments, and installment-based retail services have expanded rapidly. The objective of this study is therefore to analyze how installment payment services affect e-commerce sales and to identify the main economic and behavioral mechanisms through which BNPL influences online purchasing.

LITERATURE REVIEW AND THEORETICAL BACKGROUND

The relationship between payment methods and consumer behavior has long been examined in economics, marketing, and behavioral finance. Consumers do not necessarily perceive all payment methods in the same way. The timing of payment, the visibility of the total purchase price, perceived financial constraints, and access to credit can influence purchasing decisions. BNPL modifies the psychological perception of a purchase by separating consumption from full payment. Instead of evaluating whether they can afford the total price immediately, consumers may focus on whether they can afford the individual installment.

For example, a consumer considering a smartphone costing $600 may perceive the purchase differently when the price is presented as a full payment of $600 today compared with six monthly installments of $100. Although the economic value of the product remains approximately the same, the second option reduces the perceived immediate financial burden. This phenomenon is consistent with the concept of payment decoupling, in which the act of consumption is psychologically separated from the full monetary sacrifice associated with the purchase.

Recent empirical literature supports the idea that BNPL influences consumer spending. Kumar, Salo, and Bezawada (2024) report that BNPL adoption is associated with higher online expenditure and larger order sizes. Maesen and Ang (2024) similarly show that installment payments may increase both purchase probability and purchase amount by reducing perceived financial constraints. From the merchant perspective, BNPL can therefore operate simultaneously as a payment mechanism, financing tool, and sales promotion instrument. Berg, Burg, Keil, and Puri (2024) also document a positive sales effect following the introduction of BNPL in their research setting.

METHODOLOGY

This study applies a descriptive and analytical research approach based on secondary data. Academic publications, institutional reports, regulatory documents, and official statistical information are used to evaluate the relationship between installment payment services and electronic commerce. The analysis focuses on the mechanisms through which BNPL changes consumer decision-making and merchant performance rather than estimating a new causal coefficient from primary transaction data.

The impact of BNPL on e-commerce sales is evaluated through five major indicators: conversion rate, average order value, purchase frequency, customer acquisition and retention, and total sales revenue. Conceptually, e-commerce revenue can be expressed as Revenue = Traffic × Conversion Rate × Average Order Value × Purchase Frequency. BNPL may influence several components of this relationship simultaneously. Consequently, its contribution to sales may be greater than the direct increase in an individual transaction amount.

The Impact of BNPL on E-Commerce Sales

1. Increasing Purchase Accessibility and Conversion Rates

One of the major challenges faced by e-commerce companies is converting visitors into actual customers. Consumers may add products to their shopping carts but postpone the transaction because of the total purchase price or limited available funds. BNPL provides an alternative in such situations. By distributing the cost across future periods, it increases the short-term affordability of products and can reduce price-related barriers at the checkout stage.

For example, assume that a customer wants to purchase household equipment costing 6 million UZS but currently has only 2 million UZS available for discretionary spending. Under a traditional payment model, the purchase may be postponed. However, if the customer can divide the payment into six installments of approximately 1 million UZS, the transaction may become financially manageable. In this way, installment finance can convert postponed demand into immediate demand.

This mechanism is particularly important for electronics, household appliances, furniture, smartphones, clothing, educational products, travel services, and other categories where the purchase price represents a significant share of monthly disposable income. A convenient installment option can therefore improve checkout completion and broaden the range of consumers who are able to purchase a product.

2. Increasing Average Order Value

BNPL can also affect average order value. When consumers evaluate purchases according to monthly installments rather than the total price, the difference between products may appear smaller. For instance, a smartphone priced at 3,600,000 UZS may be presented as approximately 300,000 UZS per month for twelve months, while a more advanced model priced at 4,800,000 UZS may be presented as 400,000 UZS per month. The monthly difference of 100,000 UZS may appear more manageable than a total price difference of 1,200,000 UZS.

As a result, some customers may upgrade to a more expensive product, add accessories, or increase the number of items in the basket. Empirical studies reporting larger purchase amounts after BNPL adoption support this mechanism. For merchants, higher average order value can translate into additional revenue even when website traffic remains unchanged.

3. Increasing Purchase Frequency

Installment payments can also affect how frequently consumers make online purchases. Under traditional payment systems, consumers with limited liquidity may need to wait until they receive their salary or accumulate sufficient savings. BNPL partially reduces this timing constraint. A consumer can purchase a product when the need arises and distribute payment across future income periods. This ability to separate purchasing time from full payment time can accelerate purchasing decisions and lead to more frequent transactions.

For online marketplaces, repeated transactions are particularly valuable because purchase frequency contributes to customer lifetime value. If consumers become accustomed to using a marketplace not only for product selection but also for financing, the platform may strengthen customer retention and reduce the probability that users switch to competing sellers.

4. Customer Acquisition and Competitive Advantage

Payment flexibility can become an important source of competitive advantage. Consider two online stores offering the same product at the same price. Store A requires full payment, while Store B allows the customer to choose between immediate payment and installment payment. A financially constrained consumer may prefer Store B even when the nominal price is identical. Consequently, BNPL can influence not only what customers buy but also where they buy it.

E-commerce companies can therefore use installment payments as part of their customer acquisition strategy. Promotional messages such as “0% installment,” “pay in four parts,” or “buy today and pay later” can be integrated into advertising campaigns, product pages, mobile applications, and checkout processes. This expands the addressable customer market by including consumers who cannot or prefer not to make a large one-time payment.

BNPL and the Development of E-Commerce in Uzbekistan

The economic significance of these mechanisms is especially relevant for Uzbekistan because the country is experiencing rapid growth in electronic commerce, digital banking, and cashless payments. Local marketplaces and retail ecosystems increasingly combine product discovery, logistics, payments, and installment financing within a single application. This makes BNPL a natural extension of the digital customer journey.

In the Uzbek market, integration among marketplaces, commercial banks, microfinance organizations, payment systems, and FinTech companies can make installment payments an important component of the digital commerce ecosystem. BNPL is especially relevant for customers purchasing electronics, household appliances, furniture, clothing, educational services, and other consumer products for which immediate full payment may be difficult.

At the same time, the rapid expansion of installment services requires a well-developed regulatory framework. Information exchange with credit bureaus, transparent disclosure of repayment obligations, responsible affordability assessment, and clear consumer-protection rules are important for ensuring that the growth of installment commerce remains sustainable. For Uzbekistan, the future development of BNPL will therefore depend on maintaining an appropriate balance between innovation, market competition, credit risk management, and consumer protection.

Potential Risks and Limitations

Despite its positive effect on e-commerce sales, BNPL also requires careful and responsible implementation. One important consideration is the possibility of increased consumption, as installment payments reduce the perceived immediate cost of a product and may encourage consumers to make purchases beyond their planned financial capacity. Another consideration is the use of multiple financing services. A consumer may simultaneously have installment obligations with several providers, making it important to assess the overall financial burden rather than viewing each payment separately.

Another important aspect is that simple and frictionless checkout design may encourage consumers to focus primarily on the installment amount rather than the total repayment obligation. Therefore, clear communication of late fees, interest charges, penalties, and missed-payment consequences is essential. Transparent product terms can help consumers make informed decisions while supporting stronger trust among customers, providers, and merchants.

Sustainable BNPL therefore requires transparent information about total repayment obligations, affordability and creditworthiness assessment, reasonable financing limits, monitoring of multiple credit obligations, clear repayment schedules, responsible advertising, protection of consumer data, and effective interaction with credit bureaus. Responsible implementation can support merchant sales while protecting the long-term financial interests of customers.

DISCUSSION

The analysis demonstrates that installment payment services affect e-commerce through several interconnected mechanisms. First, they increase financial accessibility by enabling customers with temporary liquidity limitations to complete purchases. Second, BNPL can increase average order value because customers evaluate affordability through smaller periodic payments. Third, installment services can increase purchase frequency by reducing the need to postpone consumption until sufficient savings become available. Fourth, BNPL can provide competitive advantages to merchants by offering more flexible payment conditions.

These effects can be summarized through the following conceptual chain: BNPL availability → lower perceived immediate financial burden → increased purchase intention → higher conversion rate → larger basket size and/or more frequent purchases → higher e-commerce sales. However, the relationship requires responsible management. Appropriate assessment of financial capacity and repayment obligations can help preserve customer welfare, support stable repayment performance, strengthen customer trust, and reduce regulatory concerns for merchants and financial institutions.

For Uzbekistan, future empirical research could evaluate transaction-level data from marketplaces and compare consumer behavior before and after the introduction of installment payment options. A possible econometric model can be expressed as: $Sales_{it} = \beta 0 + \beta 1 BNPL_{it} + \beta 2 Price_{it} + \beta 3 Promotion_{it} + \beta 4 Income_t + \beta 5 Seasonality_t + \varepsilon_{it}$. In this specification, Sales represents the value or number of online purchases; BNPL captures the availability or usage of installment payments; Price represents product price; Promotion captures discounts and marketing activities; Income measures purchasing power; and Seasonality controls for time-specific effects. Such a model would allow researchers to estimate the independent contribution of BNPL to the growth of online sales.

CONCLUSION

Buy Now, Pay Later services have become an important component of the modern e-commerce ecosystem. Their economic importance extends beyond payment processing because they directly influence consumer purchasing decisions. The analysis conducted in this study indicates that installment payments can positively affect e-commerce sales by improving affordability, reducing checkout-related financial barriers, increasing purchase frequency, increasing average order values, and expanding the potential customer base.

For rapidly developing digital markets such as Uzbekistan, BNPL can contribute to the further expansion of e-commerce by connecting financial services directly with digital marketplaces and online retailers. Nevertheless, the positive commercial impact should be accompanied by responsible financial management and careful consideration of repayment capacity. Sustainable development of BNPL therefore requires transparent pricing, effective credit assessment, responsible lending, appropriate information exchange, consumer protection, and financial literacy.

In conclusion, installment payment services can be considered an effective instrument for stimulating e-commerce sales when implemented responsibly. The long-term success of BNPL depends on finding an appropriate balance among three objectives: increasing merchant sales, improving consumer access to products, and maintaining financial sustainability.

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