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Could the Popularity of BNPL Result from Consumers' Misconceptions about the Financial Product's?

Abstract

The main objective of this article is to examine the factors that may influence the misidentification of the Buy Now, Pay Later (BNPL) payment system, with a particular focus on whether its popularity is due not only to user adoption incentives but also to a fundamental misinterpretation of its financial nature. In particular, the article addresses the question to what extent consumers perceive BNPL as a financial product distinct from traditional credit and how this perception shapes their financial behavior and decision-making. Although BNPL is frequently promoted as a seamless and interest-free alternative to credit

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cards, growing evidence indicates that many consumers fail to recognize it as a form of debt. This misconception may stem both from deliberate marketing strategies employed by BNPL providers and from cognitive biases that influence financial decision-making. The article investigates whether consumers' limited financial literacy, along with psychological heuristics—such as the framing effect, present bias, and mental accounting—play a role in the rapid adoption of BNPL, often without a full awareness of its potential financial implications. The research area defined in this way is particularly interesting because it is a new approach to the analysis of deferred payments. Many studies have been conducted on the BNPL market and the structure of the financial product itself, but the source of its false perception has been very rarely addressed.

Critical analysis of the literature and previous scientific research on the subject. Empirical data verifying knowledge about BNPL and its perception by consumers come from research conducted in January 2024 using the PAPI and CAWI methods on a sample of 1002 Poles and in March 2025 using the CAWI method on a sample of 343 European students and their families. The article also refers to the positions of European financial market regulators from the perspective of actions to be taken.

The conducted consumer research revealed a common misconception about the nature of the product, which is BNPL. Many people, especially young people, perceive BNPL not as a financial service (consumer credit), but as an extension of the store's commercial offer, which in its own name and on its own behalf decides to accept deferred payment for a product or service. It was also revealed that the use of BNPL facilitates the emergence of heuristics and other behavioral factors influencing the consumers' misconception about the nature of this financial product.

The presented consumer research and scientific research studies lead to an interesting conclusion, according to which the popularity of BNPL may result to a large extent from the consumers' misconception that it is not a form of credit. This has significant consequences for the reflection on the adaptation of consumer protection regulations on the financial market and forces specific actions on the part of financial market supervisors.

Keywords: BNPL, consumer finance, financial literacy, household finance, fintech, behavioral finance

JEL Classification Codes: D12, G23, G53

Czy popularność BNPL wynika z błędnych przekonań konsumentów na temat tego produktu finansowego?

Abstrakt

Głównym celem artykułu jest identyfikacja czynników, które mogą wpływać na błędną percepcję systemu płatności odroczonej *Buy Now, Pay Later* (BNPL), ze szczególnym

uwzględnieniem tego, czy jego popularność wśród konsumentów wynika z oferowanych użytkownikom zachęt czy też z fundamentalnego niezrozumienia jego istoty finansowej. W szczególności artykuł podejmuje pytanie, w jakim stopniu konsumenci postrzegają BNPL jako produkt finansowy odmienny od tradycyjnego kredytu oraz jak to postrzeganie wpływa na ich zachowania i decyzje finansowe.

Chociaż BNPL jest często promowany jako bezproblemowa i wolna od odsetek alternatywa dla kredytu i kart kredytowych, coraz więcej dowodów wskazuje na to, że wielu konsumentów nie postrzega go w ogóle jako formy zadłużenia. To błędne przekonanie może mieć swoje źródła zarówno w strategiach marketingowych stosowanych przez dostawców BNPL, jak i wynikać z błędów poznawczych determinujących decyzje finansowe. Artykuł analizuje, czy ograniczona wiedza finansowa konsumentów, w połączeniu z psychologicznymi heurystykami – takimi jak efekt ramowania, dyskontowanie hiperboliczne czy księgowanie mentalne – sprzyja szybkiemu upowszechnieniu BNPL, często bez pełnej świadomości jego potencjalnych konsekwencji finansowych.

Tak zdefiniowany obszar badawczy jest szczególnie interesujący, ponieważ stanowi nowe podejście do analizy płatności odroczonej. Liczne badania rynku BNPL koncentrowały się dotychczas na dynamice wzrostu oraz na konstrukcji samego produktu finansowego – jego błędne postrzeganie przez konsumentów były dotychczas niezwykle rzadko podejmowane przez badaczy. Krytyczna analiza literatury i wcześniejszych badań naukowych w tej dziedzinie. Dane empiryczne weryfikujące wiedzę o BNPL i jego postrzeganie przez konsumentów pochodzą z badań przeprowadzonych w styczniu 2024 r. metodami PAPI i CAWI na próbie 1002 Polaków oraz w marcu 2025 r. metodą CAWI na próbie 343 europejskich studentów i ich rodzin. Artykuł odwołuje się także do stanowisk europejskich organów nadzoru nad rynkiem finansowym. Przeprowadzone badania konsumenckie ujawniły powszechne błędne wyobrażenie dotyczące istoty produktu, jakim jest BNPL. Wiele osób, szczególnie młodych – i co ciekawe deklarujących korzystanie z niego – postrzega BNPL nie jako usługę finansową (kredyt konsumencki), lecz jako rozszerzenie oferty handlowej sklepu, który we własnym imieniu i na własny rachunek decyduje się zaakceptować płatność odroczoną. Wykazano również, że korzystanie z BNPL sprzyja występowaniu heurystyk i innych czynników behawioralnych, które wzmacniają błędne przekonanie konsumentów na temat charakteru tego produktu finansowego.

Zaprezentowane badania konsumenckie oraz analizy naukowe prowadzą do interesującego wniosku, zgodnie z którym popularność BNPL może w dużej mierze wynikać z błędnego przekonania konsumentów, że nie jest to forma kredytu. Ma to istotne konsekwencje dla refleksji nad dostosowaniem przepisów dotyczących ochrony konsumentów na rynku finansowym i wymusza podjęcie konkretnych działań przez organy nadzoru finansowego.

Słowa kluczowe: BNPL, finanse konsumenckie, wiedza finansowa, finanse gospodarstw domowych, fintech, finanse behawioralne

Kody klasyfikacji JEL: D12, G23, G53

Introduction

BNPL gained popularity in the second half of the 2010 s as an alternative form of short-term credit for online retail purchases. The rapid development of e-commerce accelerated this process during and immediately after the COVID-19 pandemic. Due to its uncomplicated form and maximally simplified procedures, it is often chosen by people who are distrustful of a more extensive form of consumer credit. In recent years, also brick-and-mortar merchants have increasingly partnered with BNPL lenders to offer BNPL products to their customers as a method of payment at checkout. This proliferation has greatly increased consumers' awareness of BNPL. A European directive to strengthen consumer protection is being prepared for 2026, with the aim of assimilating this fractional payment solution to traditional consumer credit. As a result, strict regulations will have to cover aspects such as user solvency, borrower history, offer advertising, transparency of product information and the customer's withdrawal period.

Scientists undertake research on aspects of the functioning of the BNPL market, identifying various research gaps. Some of them focus on BNPL adoption (Waliszewski et al., 2024; Van Tuan et al., 2024; Abdelbary, 2023; DiMaggio et al., 2023) others pay attention to consumer motivations (Ashby et al., 2025; Maesen and Ang, 2024) or consumer behavior (Raj et al., 2024; Ziemba, 2024). The problem of perception of BNPL – and financial products in general – from the perspective of consumers is much less frequently addressed. This issue seems to be very interesting and constitutes a significant research gap that we want to address in this article. There is a connection between the perception of a product and the commonness of its use (Lim et al., 2023; You and Fang, 2009). Studies conducted in many countries clearly indicate a specific perception of BNPL by consumers (Wang, 2024; Waliszewski et al., 2024; El Sayed et al., 2022; Ratowska-Dziobiak, 2021). Many of them do not know exactly how the product works, even when using it. As a result, BNPL, due to its features, was often not correctly identified by consumers – as a consumer loan. The key factor here is the lack of a direct association “BNPL is a loan” resulting from incorrect consumer perception. It affects the speed of adoption and limits the self-control that is inherent to credit products.

In the first part of the article, we analyzed the key factors behind consumer adoption of BNPL – factors that determine its rapidly growing popularity. In the second part, we focused on analyzing the most important circumstances that may affect the misconception of BNPL – the way in which product features are communicated, households become susceptible to behavioral errors, heuristics. The risk of abuse by financial institutions cannot be underestimated – they may deliberately mislead about

product features or distract consumers from potential risks. Information on such situations is provided by a review of selected European markets, where regulators have spoken out on market practices – Poland, the UK, France, Germany and Italy.

Rapid adoption, behavioral factors and regulatory imperfections constitute external factors of consumer susceptibility to erroneous perception of BNPL. The existence of simultaneous internal constraints and weaknesses on the part of households has been confirmed in consumer surveys. Here, the key challenge is insufficient financial knowledge.

In the discussion and final conclusions, the authors emphasize the importance and potential consequences of inaccurate or limited perception of BNPL by consumers. The risks associated with over-indebtedness and impulsive, unplanned purchases are serious and tangible in this context.

Theoretical perspectives on wide BNPL adoption and usage

The theoretical foundations of consumer motivation to adopt and use BNPL are described by three main theories: Technology Acceptance Model (*TAM*); Theory of Planned Behavior (*TPB*); and Diffusion of Innovations (*DOI*).

The first one, the Technology Acceptance Model (*TAM*), explains how users accept and use technology based on its perception, usefulness, and ease of use (Davis et al., 1989). In this case, consumers perceive usefulness from the perspective of how it can improve their performance or results. At the same time, perceived ease of use refers to users' beliefs about how easy it will be for them to use the technology. These two factors determine users' attitudes towards adopting the technology, which then influence their intentions and actual use. In the case of BNPL, considering ease of use, user convenience, affordability, and the possibility of taking advantage of promotional offers, we are dealing with a clear positive impact on improving the shopping experience and simultaneously increasing consumer well-being.

According to *TAM*, perceived usefulness and ease of use are key factors in innovation adoption (Davis et al., 1989). Acceptable price and user convenience imply usability assessment. Perceived accessibility increases ease of use. (Ajzen, 1991). Modern consumers put convenience first. They try to simplify their purchases. BNPLs offer all dimensions of convenience, such as deferred payment with no interests, simplified transaction processes and seamless integration with digital platforms. BNPL offers access to promotional offers, which can further increase the contrast effect by combining prices in marketing content – before and during the promotion – reinforcing

the message about the availability of BNPL. Financial security is a significant factor influencing consumer adoption of BNPL. Privacy protection, availability of flexible repayment options makes BNPL services seem financially secure and more attractive than traditional credit options (Banque de France, 2024).

According to Ajzen's Theory of Planned Behavior (*TPB*), human behavior is influenced by three factors: beliefs, normative beliefs, and control beliefs (Ajzen, 1991). Behavioral aspects refer to the perception of the consequences or expected outcomes of consumer decisions. Normative beliefs are shaped by the pressures and expectations of others regarding this behavior. Control beliefs result from the presence or absence of factors that facilitate or hinder the behavior – the use of a given solution, product, or service. From the perspective of BNPL adoption, *TPB* has been used to examine how these services influence consumer behavior by providing a sense of security through offers that increase trust and satisfaction with BNPL as a payment option (Abdelbary, 2023). It is the ease of use and affordability of BNPL services that influence how consumers positively perceive their control over their decisions, making BNPL seem safe, accessible, and affordable to them as a financial product.

The third of the key theories – Diffusion of Innovations (*DOI*) – explains how information about an innovation spread. According to Rogers et al. (2014), its adoption depends on the perception of relative advantage, compatibility, complexity, trialability, and observability. Based on this theory, the rate of adoption of an innovation depends on five attributes:

- relative advantage – how the innovation is perceived in comparison to the product/service it replaced,
- compatibility – it is used to measure the degree to which a given innovation fits the prevailing value system,
- complexity – it is directly related to how complicated and/or difficult the product or service is to use from the perspective of potential users,
- trialability – it is determined by the ease and availability of regular testing,
- observability – to what extent the effects of using the innovation are visible.

From the *DOI* perspective, BNPL has a noticeable advantage over traditional credit products such as installment loans or credit cards due to its lower costs and high convenience for the user. Adaptability to digital sales channels and flexibility meet the needs of not only young and innovation-friendly consumers. In this case, the speed and intuitiveness of procedures are very important, as they do not require applying for credit either at the time of purchase or earlier. Numerous promotions and intensive communication encourage people to try BNPL.

Consumers' perception of BNPL

Perception, defined as the way individuals interpret sensory information to understand their environment, have been widely studied across various disciplines. Their origin and nature have been examined through multiple theoretical perspectives, including cognitive psychology (Grothmann and Patt, 2005). One of the most influential frameworks in this field is the dual-process model, which provides a structured approach to understanding human cognition by dividing it into two primary systems.

The dual-process model, a key concept in cognitive psychology, proposes that human cognition operates through two distinct systems: the intuitive, automatic, and fast 'System 1' (perception) and the deliberative, controlled, and slow 'System 2' (cognition) (Kahneman, 2011). System 1 is characterized by rapid, intuitive thinking that relies on experience-based associations to process information quickly. In contrast, System 2 engages in deliberate, reflective thinking, applying learned rules from cultural or formal education to analyze information in a slower, more controlled manner. Financial product marketing can effectively leverage dual consumer perception through various strategic approaches. Dual consumer perception refers to the two distinct ways in which consumers evaluate and respond to financial products: a rational, objective assessment based on the product's features and benefits, and an emotional, subjective interpretation shaped by personal experiences and feelings (Yu and Fang, 2009). Emotionally driven consumers are more likely to trust and engage with financial products impulsively, often without much thought – especially when the product appears simple, useful and easy to use. This emotional response can lead to rapid adoption of services such as can be observed, for instance, in the case of BNPL, as consumers may feel an immediate sense of relief or satisfaction, prioritizing short-term satisfaction over long-term financial considerations.

From conventional cash transactions to the modern FinTech solutions, consumer perceptions of various payment methods significantly shape purchasing behavior and financial decision-making. Soman (2001) explored the impact of different payment mechanisms on consumer spending habits through a series of four experiments. The study examined whether less transparent payment methods, such as credit and debit cards, encourage increased spending. Soman's findings revealed that the psychological discomfort associated with making payments – often referred to as the "pain of paying" – diminishes when the payment method is less tangible and transparent. This effect is particularly evident in the case of credit cards, which eliminate the need to physically count cash, thereby reducing the cognitive awareness of spending and potentially leading to higher expenditure.

BNPL providers position themselves as a more consumer-friendly alternative to traditional debt providers. However, it is essential to recognize that BNPL was designed primarily to encourage impulse purchases. By offering immediate access to goods and reducing financial barriers typically associated with credit cards, BNPL facilitates spontaneous spending (Ah Fook and McNeill, 2020). Millennials and Generation Z, who are generally reluctant to use credit cards due to high fees, find BNPL particularly appealing when marketed as a fee-free or low-cost alternative (Relja et al., 2023). Additionally, the perception of BNPL as a FinTech product – widely viewed as more affordable and innovative compared to conventional financial services – further enhances its attractiveness. Given that Millennials and Generation Z demonstrate a higher level of trust and acceptance toward FinTech solutions, BNPL seamlessly aligns with their financial preferences and spending habits (Cordoba et al, 2022).

Consumers' financial knowledge is not high, and its source is not professional publications or the education system. This was confirmed by numerous earlier studies of financial knowledge in Poland, including studies by Świecka and team (2020, 2019) and Zielińska and Kowalczyk (2022) on financial behavior. Their results were consistent with studies conducted at the European level (Özdemir, 2022; OECD, 2020). Warchlewska (2021) explains the low level of financial knowledge by the lack of skills in using available sources of information and difficulties in understanding complex financial products. According to the latest report "Polak na Zakupach" (*"Pole on shopping"*) [PayPo, 2025], the main source of knowledge about deferred payments are the websites of sellers – more than half of the respondents (54.3%) who made deferred transactions indicated this option. Another popular place of contact with this type of services are the websites of state institutions, such as the Polish Financial Supervision Authority or the National Bank of Poland – 30% of respondents indicated this answer. As the data below shows, every fourth person asked (25.1%) learns about BNPL payments from friends. The next place was taken by comments from Internet users who have already used this type of payment (24.9%) and with almost the same result the website of the Credit Information Bureau was indicated (24.6%).

Heuristics and behavioral aspects impacting BNPL usage

The analysis of the sources and possible consequences of BNPL misconception by households results not only from the lack of regulation but also from the specific features of the product itself. The design and manner of communicating BNPL significantly facilitates the disclosure of heuristics and cognitive biases that influence

consumer decisions. A key factor here is the way in which consumers interpret the information they receive and the extent to which they are influenced by targeted incentives – as is the case, for example, with time-limited offers or “zero interest” messages. The presence of heuristics in this context goes beyond mere perception or adoption of BNPL. The very design of the service tends to divert consumers’ attention away from the essence of using the product, shifting the focus instead to the outcomes of its use.

Undoubtedly, the most important and most influential here is the *framing effect*. In theory, it refers to how the form of presenting the same information can lead to different perceptions and, consequently, influence consumer choices (Tversky and Kahneman, 1981). In the case of BNPL, it can facilitate the emphasis of benefits and minimize the relative costs of a purchase decision, thus increasing the desire and likelihood of purchase. BNPL integrated with a commercial offer can increase the pressure of urgency – through the limited time or quantity of the promotional offer (Wu et al., 2021).

Another factor influencing consumer behavior is the *availability heuristic*, which refers to how people rely on information that is more easily accessible or retrieved from memory when making decisions or judgments (Tversky and Kahneman, 1973). BNPL can significantly reduce cost transparency by hiding information about the cost of credit or delaying payments, making consumers less aware of their purchases (Guttman-Kenney et al., 2023). Consumers may be influenced by the *zero-price heuristic*, meaning they overestimate the benefits of “interest-free” period and after splitting payments into installments while overlooking potential hidden costs – e.g., interests, high late fees (Wang et al., 2022). The *psychological ownership of money* effect causes consumers using BNPL to treat accessible funds as their own, which can lead to riskier financial decisions. In the research by Kumari et al. (2023), BNPL users often viewed deferred payments as an “extension” of their budget rather than as debt – generating important “debt trap” risk.

Consumers using BNPL can be influenced by heuristics of *delayed gratification* – customers gain immediate access to goods without having to pay upfront. Relja et al. (2024) found that BNPL reduces the “pain of paying”, which can lead to impulsive purchasing decisions. Waliszewski, Solorz and Kubiczek (Waliszewski et al., 2024) also note that consumers prefer immediate gratification without considering future costs, which can be used to promote BNPL as a “painless” way to pay. BNPL users may engage in *mental accounting* by treating BNPL – related obligations as separate from other expenses. This can lead to irrational financial decisions and overspending. The consumers may be inclined to take on new BNPL obligations instead of using their savings, which they have mentally allocated for other purposes (Kusmalinda, 2025).

Conclusions resulting from the analysis of BNPL through the prism of behavioral finance provide interesting observations. Heuristics have an impact on the easy adoption of BNPL because they refer to important factors that determine consumers' decisions to widely use BNPL services: convenience, ease of registration, access to promotions, low costs, and digital and financial security. As a result, the pursuit of financial well-being overshadows rational assessment of the situation, increasing the risk of suboptimal financial decisions.

Regulatory implications

The rapid growth of BNPL services is causing increasing concern among regulators, leading to calls for appropriately adapted legal solutions. A key issue in these discussions is the way BNPL is presented and, consequently, how consumers perceive BNPL – in particular, the misconception that BNPL is merely a convenient payment method, not a credit product. BNPL services are often offered as interest-free solutions that allow payments to be spread over instalments. This type of presentation is particularly attractive to younger consumers and those struggling with a tight budget. However, many users are unaware that BNPL is a form of credit that can incur late payment fees and negatively impact their financial situation. This recurring misunderstanding significantly influences the actions taken and the direction of planned legislative changes.

In many countries, financial market regulators are seeing serious problems with the way BNPL is communicated to households. This perception gap will have legislative consequences, as the problem occurs in many markets, for example:

- In Poland, the Polish Financial Supervision Authority (KNF – *Komisja Nadzoru Finansowego*) intervened in the matter of deferred payments offered by InPostPay. In 2024, the company introduced its offer in a formula that bypasses the Consumer Credit Act. It was assumed that if the customer does not bear the costs of deferring the payment, such a loan is not a consumer loan. After the KNF intervention, Aion Bank, cooperating with InPost in offering deferred payments, had to change the rules of its service because, in the opinion of the supervisory authority, they misled customers about the nature of the product. The position presented by the National Bank of Poland (NBP – *Narodowy Bank Polski*) is also based on the assumption that deferred payment services (BNPL) should be provided in Poland in the consumer credit regime by institutions subject to the supervision of KNF. Its representatives take the position that any attempts at regulatory arbitrage in this area should be combated. In addition, the regulator

and supervisor in their practice must consider the specificity of BNPL and risks of a social nature - e.g. excessive debt) [Bank.pl, 2023].

- Current provisions of the UK Consumer Credit Act, especially sections 55, 55C, 60, 61, and 61A, are widely regarded as inadequate in addressing the specifics of BNPL. Their direct application can disrupt the online shopping process without providing better understanding of the product for consumers. Therefore, it is recommended to develop separate informational obligations before entering into agreements, specifically tailored to BNPL products (So, 2024). The most effective were warnings endorsed by a regulatory body, such as the FCA (So, 2024). For example, participants who saw information about potential debt arising from BNPL and possible late fees were much more cautious in selecting this payment method. Interestingly, the format of the message (e.g., bullet points or continuous text) mattered less than the source and strength of the content. The best results came from warnings emphasizing the credit nature of BNPL and its potential financial consequences. These findings support calls for the implementation of mandatory, clear informational messages that will meaningfully influence consumer decisions. The issue of BNPL perception also has broader social implications. As this service becomes the default payment method in online shopping, its misuse could exacerbate financial problems, especially during challenging economic times. Those with low incomes are particularly vulnerable, as BNPL can be their only available form of credit, highlighting the need for additional consumer protection (Schomburgk and Hoffmann, 2023; CFPB, 2023).
- The National Bank of France (BdF – *Banque de France*) and the French Financial Markets Authority (AMF – *Autorité des Marchés Financiers*) through the work of the Legal Committee of the Paris Financial Centre (HCJP – *Haut Comité Juridique de la Place Financière de Paris*), highlights the rapid growth of BNPL largely driven by the expansion of e-commerce. In its position paper, it points out that these products, although often excluded from the traditional framework of consumer credit, pose significant risks for consumers, in particular the increased risk of over-indebtedness due to the multiplication of repayments and the lack of transparency regarding the terms of the contract. The HCJP stresses the need for proportionate regulation that considers their low amounts and short repayment periods. It also stresses the importance of better assessing the creditworthiness of borrowers and enforcing mandatory pre-contractual disclosures. Finally, it recommends that France apply a simplified but controlled regulatory regime, aimed at ensuring adequate consumer protection while allowing SMEs to continue to offer payment facilities without excessive regulatory burdens.

- The German Federal Financial Supervisory Authority (BaFin – *Bundesanstalt für Finanzdienstleistungsaufsicht*) has addressed many times related issues concerning consumer protection and financial services – including BNPL as fast-growing product. BaFin discussed how misunderstandings and lack of clarity can lead to consumer complaints. This highlights the importance of clear communication and transparency in financial products to prevent consumer misperceptions.
- The Bank of Italy (BdI – *Banca d'Italia*) has expressed concerns about BNPL services. In October 2022, it issued a communication highlighting that BNPL schemes are not specifically regulated, and the applicable regulations depend on the specific design of the operation. The Bank of Italy warned consumers about potential risks, such as incentivizing purchases that may not be financially sustainable and the exposure to over-indebtedness.

As a result, the way consumers perceive BNPL significantly affects their financial decisions. Misconceptions about its nature lead to excessive use and growing debt. Observations made in many countries indicate the need to prepare appropriate regulations that will resolve these misunderstandings with clear, understandable and effective information messages. New regulations should consider the specificity of BNPL but at the same time promote more informed, responsible financial decision-making.

Research

An extremely important component of household interaction with the financial market are financial knowledge, i.e. knowledge of economic concepts and categories, and financial literacy, i.e. the ability to effectively analyze existing financial options (Lusardi and Messy, 2023). The BNPL market forces consumers to analyze offers - sometimes in a broader sense than it results from how they are communicated. If financial knowledge is insufficient, the risk of suboptimal financial decisions is very high and real.

To assess the level of knowledge about BNPL and the way this product is perceived by consumers, the authors used the results of research conducted on a group of 1,002 Polish consumers (2024) and 343 European consumers – students and their families (2025). As part of the discussion and formulation of conclusions, they compared the obtained results to analyses conducted by other scientists.

A description of the nonparametric statistics used in Surveys 1 and 2 and the characteristics of the research groups can be found in Appendix 1 to this article.

Survey 1 – Financial literacy among Polish consumers

In January 2024, Gebski (Gebski and Daw, 2024) conducted a study of the financial knowledge of Polish consumers. 1,002 respondents answered questions about their knowledge and understanding of economic concepts and categories. Among the topics covered in the survey was knowledge of BNPL.

Based on the results presented in Table 1, a statistically significant relationship was observed between the familiarity with the BNPL deferred payment system and the age and education level of the respondents. Younger individuals, particularly those under 25 or up to 40 years old, were more likely to declare familiarity with or usage of the BNPL system. Additionally, individuals pursuing economic studies or holding higher education degrees were significantly more likely to be familiar with the BNPL system. A significant group of respondents declared a lack of knowledge of the detailed rules of BNPL, even when they gave an affirmative answer regarding their familiarity with the product. Among the respondents with primary education, 22% (which is a large representation in the population < less than 25 years) declared a lack of knowledge of the principles of BNPL operation. Also 42% of people with secondary education, despite their declared familiarity with BNPL, had no knowledge of how the product works. These large groups are also the most frequent users of BNPL.

Table 1. Familiarity with the BNPL

Place of residence	Village or small town (%)	Town (%)	Big city (%)		V	P
I know what it is and have used/am using it	6.90	6.50	21.50		0.17	***
I know what it is but have never used it	28.60	22.90	40.00			
I have heard of it but do not know how it works	25.80	27.10	15.50			
I have never heard of it and do not know how it works	38.70	43.50	23.00			
Household structure	Single (%)	Childless couple (%)	Couple with children (%)	Other (%)	V	P
I know what it is and have used/am using it	24.70	6.50	6.30	20.30	0.13	***
I know what it is but have never used it	36.10	23.10	27.70	63.00		
I have heard of it but do not know how it works	15.50	23.70	28.70	9.30		
I have never heard of it and do not know how it works	23.70	46.70	37.30	7.40		

cont. Table 1

Age	Less than 25 years (%)	26–40 years (%)	41–60 Years	More than 60 years (%)	V	P
I know what it is and have used/am using it	23.10	15.80	3.90	1.30	0.28	***
I know what it is but have never used it	42.90	39.40	27.20	9.40		
I have heard of it but do not know how it works	10.80	27.80	27.20	25.20		
I have never heard of it and do not know how it works	23.20	17.00	41.70	64.10		
Education level	Primary (%)	Secondary (%)	Currently studying economics (%)	Higher education (%)	V	P
I know what it is and have used/am using it	4.40	7.10	27.50	21.50	0.34	***
I know what it is but have never used it	14.60	27.90	61.20	52.50		
I have heard of it but do not know how it works	22.20	42.00	6.30	13.50		
I have never heard of it and do not know how it works	58.80	23.00	5.00	12.50		

P – level of statistical significance, V – strength of association (Cramér's V)

Source: Financial literacy among Polish consumers (January 2024).

Table 2. Relationship Between Age and Education and Knowledge of BNPL Repayment Terms

Age	Less than 25 years (%)	26–40 years (%)	41–60 years (%)	More than 60 years (%)	V	p
The consumer must repay the entire deferred payment amount at once	17.00	6.50	5.40	0.40	0.26	***
The consumer can divide the deferred payment amount into installments	31.60	36.10	20.80	7.30		
I don't know	51.40	57.40	73.80	92.30		
Education level	Primary (%)	Secondary (%)	Currently studying economics (%)	Higher education (%)	V	p
The consumer must repay the entire deferred payment amount at once	0.00	3.50	32.50	16.10	0.33	***
The consumer can divide the deferred payment amount into installments	15.90	27.00	35.00	35.00		
I don't know	84.10	69.50	32.50	48.90		

P – level of statistical significance, V – strength of association (Cramér's V)

Source: Financial literacy among Polish consumers (January 2024).

A statistically significant relationship was also found between age and education level and the understanding of the rules governing the use of deferred payments within the BNPL system (Table 2). Respondents under 40 years of age were notably

more aware that BNPL allows consumers to split the deferred payment amount into installments. Similarly, individuals with higher education or those studying economics were the most knowledgeable about the possibility of installment payments within the BNPL system.

Nearly 62% of respondents (younger than 25 years old) and 64% of respondents in the 26–40 age group declared that they did not know about the possibility of dividing the deferred payment into installments. This feature very clearly indicates that they did not perceive BNPL as a loan.

Based on the results presented in Table 2, a statistically significant relationship was observed between familiarity with the BNPL system and both the respondent's place of residence and household type. Individuals living in large cities were more likely to be aware of BNPL deferred payment services. Additionally, singles, who tend to be more open to innovation, reported higher familiarity with BNPL.

Survey 2 – BNPL adoption and perception by customers

The second study was conducted in March 2025. This study, conducted electronically (CAWI), involved full-time and part-time students and their family members (effectively) $N = 343$. The study was aimed mainly at young people and students because, in the light of previous research, this group is characterized by the highest rate of BNPL adoption and openness to innovation.

The respondents were familiar with the BNPL deferred payment system (282 respondents representing 82% of research group), and 128 (over 34%) had already used it. Survey participants who declared prior experience using BNPL were asked whether they had a credit card (44 answers – 36%). Respondents who used BNPL were asked to provide information on whether they had repaid their debt in full at the end of the interest-free period or converted it to credit installments (Pay in 3 or pay in 4). In this case, 68% (82 answers) of respondents who provided an answer confirmed that they treated BNPL only as a deferral of payment and repaid the debt in full, without interest.

All respondents who used BNPL before were asked to provide reasons for using the service. In this case, they could choose more than one answer.

All respondents were confronted with information that BNPL is a credit product and therefore asked to answer the question regarding how they understand incurring such a credit obligation in such a situation – more precisely, “at what moment do they take out a consumer loan?” to finance their purchases.

Table 3. The reason why respondents used BNPL

The reason	Number of answers	%
Possibility of paying later – I didn't really have the money to buy it today	41	32
Possibility to settle a matter 'immediately' without having to fill out forms and submit certificates	50	39
Possibility to pay later without any costs	43	33
I didn't have to apply for a loan for the purchase	50	39
Because it's fast and convenient	42	32
Because it's modern	15	12

Source: BNPL adoption and perception research (March 2025).

Table 4. The moment respondents (customers) take out a consumer loan

Perception of BNPL as a credit product	Number of answers	%
At the time of purchase of the product or service – by selecting the option "buy now, pay later"	132	36
When applying for instalment payment	79	22
I never apply for credit; it's the seller who agrees to defer payment for the goods or services	80	22
I was not aware that BNPL is a loan	59	16
Buy now pay later is not a loan	14	4

Source: BNPL adoption and perception research (March 2025).

The last question of the survey concerned the respondents' opinions on who grants "credit" for purchases in the BNPL deferred payment system.

Table 5. Who grants credit in the case of BNPL

Who grants credit in the case of BNPL	Number of answers	%
A store (consciously agrees to later payment)	72	21
A bank cooperating with the store grants a loan	130	38
A loan company cooperating with the store grants a loan	56	16
I have no idea	85	25

Source: BNPL adoption and perception research (March 2025).

Results & Discussion

The discussion and analysis of the BNPL misattribution problem includes limitations resulting from the fact that while the topic of BNPL is already a common subject of research and publications, the problem of its misperception by consumers is a new topic and there is not much research on it. Researchers have drawn attention

to the individual areas discussed in our article, for example the impact of financial knowledge on consumers' financial decisions (Lusardi and Mitchel, 2023; Lusardi and Messy, 2023; Warchlewska, 2022), the impact of behavioral factors on households' financial decisions (Kotlińska et al., 2024) or BNPL adoption factors (Cheng et al., 2025; Maymont, 2022).

BNPL can enhance financial accessibility and help reduce credit exclusion, particularly for consumers who may not qualify for traditional forms of financing (Waliszewski et al., 2024). By offering a convenient and flexible payment option, BNPL promotes greater financial inclusion. On the other hand, the ease of access to BNPL may encourage consumers to spend beyond their means. This tendency is especially evident in online shopping environments, where the digital nature of transactions can diminish the perception of real costs and support impulsive buying. The appeal of immediate gratification without immediate financial consequences may lead to overconsumption and the accumulation of unsustainable debt.

As with traditional credit products, irresponsible use of BNPL poses significant financial risks (Solarz, 2012). In this context, the growing popularity of BNPL as a payment method can be seen as a potential driver of excessive indebtedness (Grala and Bogucka, 2020). Therefore, it is crucial to analyze the impact of BNPL on consumer behavior, particularly regarding its role in stimulating higher consumption levels. In this context, the results of both studies are worrying. Lack of awareness of the nature of the financial product being used increases the risk of negative consequences. The studies reveal that in the case of BNPL we are dealing not only with a lack of knowledge, but also with a false belief about the nature of the product.

The erroneous perception of BNPL as something other than a credit product must be explained in a much broader perspective. It is a combination of consumer dysfunctions resulting from the lack of knowledge and succumbing to the weaknesses of human nature. These can be explained by several theoretical and behavioral factors influencing consumers, widely analyzed in the scientific literature – above all economic and psychological.

Deferred payment providers often consciously omit or even hide information about the credit nature of their offer (referred to in the article case study of inPost-Pay & Aion Bank – 2024) in their marketing communications – they focus only on the functions of the offered solution.

- BNPL providers use marketing strategies that emphasize ease of use and accessibility while avoiding terms traditionally associated with debt, such as “loan” or “credit.” This is consistent with Tversky and Kahneman's (1981) framing effect, in which the way information is presented influences consumer perception. BNPL is integrated into e-commerce platforms as a payment method rather than

a financial tool, making it seem like a seamless transaction rather than a credit decision (Florence et al., 2022).

Heuristics that are strongly revealed in the case of financial products such as BNPL:

- The psychological ownership heuristic (Kumari et al., 2023) emerges first. Consumers -especially young ones - see deferred payments as an extension of available funds rather than as debt. Even more so because information on this subject is not provided with the option to defer payment (Morewedge, 2021).
- The pain associated with payment is also worth noting (Soman, 2001). The psychological discomfort associated with spending decreases when using BNPL, which leads to higher spending and a lack of financial caution, which is often exacerbated by the awareness of using credit.
- Zero price heuristic (Wang, 2022). In the case of BNPL, consumers overestimate the benefits of “interest-free” periods and installment payments, while forgetting about hidden fees and the risk resulting from late payments. It is probably this heuristic that causes them to perceive BNPL as credit only when paying in installments - a classic form of crediting a purchase (Davidai and Tepper, 2022).

Digital finance and trust in Fintech:

- Millennials and Generation Z have high trust in digital payment systems and fintech solutions (Cordoba et al., 2022). BNPL capitalizes on this perception by positioning itself as a “modern” financial tool rather than a loan. Unlike credit cards, which require applications and approvals, BNPL is presented as an instant payment method with much less friction, reinforcing its perception as non-credit (Han et al., 2024).

The conclusions drawn directly from the conducted surveys clearly indicate that general knowledge of BNPL is widespread, especially among young consumers. However, a significant proportion of them do not perceive BNPL as a form of consumer credit.

Key research findings indicate that

- Most respondents under 25 (62%) and aged 26–40 (64%) (2024 survey) declared that they did not know that BNPL can be repaid in installments.
- Only 36% of respondents in the 2025 study confirmed that they were aware that they were already taking on a credit obligation at the time of purchase – 22% believed that this only happens at the time of applying for credit installment payments, and the rest did not perceive BNPL as a credit at all.
- 22% incorrectly believed that BNPL was a simple deferred payment provided by a merchant, rather than a financial product provided by a third-party lender, while a further 20% believed that BNPL was not a loan or were unaware of this (2025 survey).

- Almost 49% of consumers are unaware of who provides funding for BNPL transactions (2025 survey).

The reaction of financial market regulators varies greatly. Some researchers point out the inadequate and delayed reaction of regulators to the development of the BNPL market (Maesen and Ang, 2025; Aggarwal et al., 2022; Johnson et al., 2021). The harmful impact of presenting BNPL as a “non-credit” and debt-based product on many consumers may be a source of concern about the impact of BNPL on financial market stability, both generally and specifically in relation to information asymmetry and consumer ignorance about what is best for them. Different levels of supervisory reaction may encourage BNPL providers to resort to regulatory arbitrage. This position was presented by, among others, Dong et al. (2025) and Johnson (2023).

Conclusion

As a result, empirical verification of consumer knowledge and analysis of sources of potential misconceptions lead to the conclusion that BNPL is often chosen by consumers due to the false belief that it is not a form of consumer credit. This is facilitated by heuristics, low level of financial knowledge and the way of communicating the product by sellers. The study did not confirm that consumers' awareness that BNPL “is a credit” had a significant impact on withdrawal from using BNPL. Although minority of respondents (study from 2025) stated that if they knew that BNPL is a credit and information related to this fact would be recorded in borrowers' data, they would not use the deferred payment. The study did not explain whether this is due to fear of credit or rather fear of disclosing data in databases. Undoubtedly, research in this direction should be continued, because BNPL is a very widespread financial product and knowledge about it should be common among consumers. It seems particularly interesting to explore the connections with other financial products, such as credit cards, because in certain situations these products may prove to be supplementary – BNPL can replace and displace credit cards from the market due to their ease of use and higher availability.

From a systemic perspective, BNPL has all the features of a financial product that may be misinterpreted. The ease of adoption, especially among young and less financially literate consumers, and its integration into the “fast and hassle-free” shopping that is a symbol of modernity with implications for macro-economic consumption – require constant analysis. Financial market regulators also notice these risks and try to draw the right conclusions. In the European Union, the prevailing view is that BNPL should be included in the regulatory regime appropriate for consumer

accreditations. In the UK, other solutions are sought – also with the aim of market supervision and control. Here, however, more weight is given to information addressed to consumers.

The topic of BNPL perception and the impact of its misinterpretation should be the subject of further research, both at the level of the evolution of the regulatory system and the analysis of consumers themselves. BNPL is not the first example of such a financial product and the scientific community should not miss the opportunity to better study and understand it.

Appendix

The purpose of this appendix is simply to briefly inform readers of the selected non-parametric statistics used in this article and characteristics of the research groups.

Statistics methods

IBM® SPSS® Statistics 29.0.0. software was used to analyze dependencies and their strength. The following statistical tests were used:

Pearson's χ^2 test (a non-parametric test) used to examine the relationship between two variables measured on a qualitative scale.

The formula:

$$Y = a(\delta K^{-\rho} + (1 - \delta)L^{-\rho})^{-\frac{1}{\rho}}$$

χ^2 = chi squared

O_i = observed value

E_i = expected value

The strength of the relationship is calculated based on Cramer's V coefficient:

$$\rho = \frac{1 - \sigma}{\sigma}$$

Where V is between 0 and 1 and the closer it is to 0, the more independent variables we are in.

n is the number of observations,

r is the number of levels of one variable,

k is the number of levels of the second variable.

Kendall's tau correlation analysis (a non-parametric method) for examining the relationship between two variables measured on an ordinal scale. Unlike Pear-

son correlation, Kendall's Tau doesn't rely on the assumption of linearity, making it useful for ordinal data. The study examined the relationship between consumers' self-assessment of their knowledge and the results obtained when answering verification questions.

$$\sigma = \frac{1}{1 + \rho}$$

The relationship between the declared level of financial knowledge and actual knowledge (tested using Kendall's Tau).

Kendall's tau correlation value can range from -1 to 1 , where values closer to -1 mean a strong negative correlation and values closer to 1 mean a strong positive correlation.

The adopted level of statistical significance was $p < 0.05$, marked as *, as well as additional more precise levels of $p < 0.01$, marked as ** and $p < 0.001$, marked as ***.

The characteristics of the research groups

Survey 1 – Financial Literacy Among Polish Consumers

The study (CAWI & PAPI) conducted in January 2024 involved $N = 1002$ people, while maintaining the statistical distribution of the research group corresponding to the demographic structure of the inhabitants of Poland resulting from the National Census conducted by the Central Statistical Office (2021).

Characteristics of Research Group ($N = 1002$)

Question	Description	N	%
How old are you?	less than 25	212	21.2
	25–40	277	27.6
	41–60	279	27.8
	over 60	234	23.4
What is your education level?	primary education	473	47.2
	secondary education	306	30.5
	high education	223	22.3
Where do you live?	village or small town (<50'000 inhabitants)	393	39.4
	medium city	340	34.0
	big city (> 100'000 inhabitants)	269	26.8
What your household looks like?	I live alone	194	19.4
	We are a childless couple	325	32.5
	We live with children younger than 15 years old	237	23.6

cont. Table

Question	Description	N	%
	We live with children older than 15 years	192	19.2
	I am a student or someone else supports me	54	5.3
How financial decisions are made in your household?	I make financial decisions independently	307	30.6
	I make financial decisions together with my partner	416	41.5
	I make financial decisions, but I consult people I trust in this area	215	21.5
	I do not participate in financial decisions - they are made by my partner/parents	64	6.4
Have you ever used any type of loans?	Yes, I am repaying the loan now or have repaid it in the past	613	61.4
	No, I am not paying off now nor I have never used it in the past	389	38.6
Have you ever used consumer credit to purchase goods or services?	Yes, I bought something financing the purchase with a consumer loan	387	38.6
	No, I have never bought anything using consumer credit to finance the purchase	409	40.8
	No, I have never purchased anything using consumer credit and I do not want to use credit in the future	206	20.6
How do you earn money?	I have a fixed salary	852	85.2
	I have variable income (temporary contracts, commissions...)	150	14.8
Do you have a bank account?	Yes	986	98.4
	No	16	1.6

Participants were required to answer every question in the survey.

Answering every question was required, 1002 qualified surveys were obtained - incomplete or incorrect surveys (only PAPI) were not considered. Online surveys (CAWI) prevented them from being sent in an incomplete or incorrect form.

The survey consisted of 23 questions divided into three sections:

Basic data (9 questions) concerning statistical and profile issues as:

- a. age,
- b. education,
- c. place of residence,
- d. household structure,
- e. g. method of making financial decisions in the family household,
- f. having a bank account,
- g. using (or "not") loans and in particular consumer loans.

Financial knowledge (6 questions) relating to knowledge of concepts, categories and financial products and services:

- a. cost of money,
- b. annual effective interest rate,
- c. variable interest rate on credit and its sources,
- d. consumer bankruptcy.

Familiarity with financial products and services (8 questions):

- a. practice of concluding financial agreements,
- b. comparing loan offers,
- c. knowledge of innovative financial products and services.

Questions about BNPL were part of the survey (3 questions) and concerned:

- a) declarations regarding the use of BNPL (1 question),
- b) knowledge of the rules for using BNPL (2 questions).

Survey 2 – BNPL Adoption and Perception Research

The study was conducted electronically (CAWI) in March 2025, and involved full-time and part-time students from Warsaw (including the University of Warsaw, Warsaw School of Economics), Krakow (Jagiellonian University), Rotterdam (University of Rotterdam) and Paris (including Université Paris 1 Panthéon-Sorbonne, Paris School of Business, Université Paris-Est Créteil) and their family members.

Age group of respondents	Number of participants	%
< 18 years	21	6
19–25 years	204	56
26–40 years	87	24
41–65 ears	40	11
> 65 years	12	3

The survey was conducted electronically (online) and after receiving them, it was found that some of the respondents were under 18 years of age (21) – the results for this group were excluded from the analysis. Effectively, 343 responses to the survey were examined.

The survey included only questions regarding usage and perception of BNPL (11 questions)

- a) declarations regarding the use of BNPL,
- b) knowledge of the rules for using BNPL,
- c) perception of BNPL by users/customers,
- d) use of other financial products as e.g. credit cards.

Author Contributions

The authors confirm being the sole contributor of this work and has approved it for publication.

Conflict of Interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

Ethics Statement

The authors certify that the research published in the text was carried out in accordance with the research ethics of the affiliated university.

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