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Perceived usefulness, ease of use, risk, and trust: Explaining BNPL user recommendation intention through behavioural models

🆔 **Krzysztof Waliszewski**[1]

🆔 **Ewa Cichowicz**[2]

🆔 **Mateusz Folwarski**[3]

🆔 **Łukasz Gębski**[4]

🆔 **Jakub Kubiczek**[5]

🆔 **Paweł Niedziółka**[6]

🆔 **Małgorzata Solarz**[7]

Abstract	Keywords
The main objective of the article is to identify and evaluate the key determinants of consumer recommendation intention with Buy Now, Pay Later (BNPL) services, operationalised	• BNPL • SEM • consumer finance

[1] Poznań University of Economics and Business, Department of Money and Banking, al. Niepodległości 10, 61-875 Poznań, Poland, corresponding author: krzysztof.waliszewski@ue.poznan.pl, https://orcid.org/0000-0003-4239-5875.

[2] SGH Warsaw School of Economics, Financial System Department, al. Niepodległości 162, 02-554 Warszawa, Poland, ewa.cichowicz@sgh.waw.pl, https://orcid.org/0000-0002-9379-9127.

[3] Krakow University of Economics, Poland, Department of Banking and the Global Financial System, ul. Rakowicka 27, 31-510 Kraków, Poland, mateusz.folwarski@uek.krakow.pl, https://orcid.org/0000-0001-6109-9110.

[4] SGH Warsaw School of Economics, Institute of Banking, al. Niepodległości 162, 02-554 Warszawa, Poland, lgebski@sgh.waw.pl, https://orcid.org/0000-0002-5370-3987.

[5] University of Economics in Katowice, Department of Economic and Financial Analysis, Bogucicka 3a, 40-228 Katowice, Poland, jakub.kubiczek@uekat.pl, https://orcid.org/0000-0003-4599-4814.

[6] SGH Warsaw School of Economics, Institute of Banking, al. Niepodległości 162, 02-554 Warszawa, Poland, pniedz@sgh.waw.pl, https://orcid.org/0000-0002-1659-7310.

[7] Wroclaw University of Economics and Business, Department of Finance and Accounting, ul. Nowowiejska 3, 58-500 Jelenia Góra, Poland, malgorzata.solarz@ue.wroc.pl, https://orcid.org/0000-0001-9538-0541.

through the intention to recommend such services to others. The study investigates the influence of five core constructs: perceived usefulness, perceived ease of use, perceived trust, and perceived risk. Data are collected from a quota sample of 350 users of deferred payment services, selected in accordance with the demographic profile of BNPL users. The study employs PLS-SEM. The results show that perceived usefulness and perceived trust in the BNPL provider significantly boost recommendation intention. Perceived risk negatively impacts recommendation intention, while perceived ease of use has only a marginal effect. These results contribute to the existing literature by elucidating the behavioural mechanisms underlying BNPL usage and provide actionable insights for financial service providers aiming to enhance consumer recommendation intention and retention.

• consumer recommendation intention

Introduction

The Buy Now, Pay Later (BNPL) payment model has emerged as one of the most prominent financial innovations within the digital economy over the past decade. Initially introduced as a niche credit solution, BNPL has rapidly evolved into a mainstream consumer financing tool, particularly within e-commerce platforms. It allows consumers to defer payment—typically without interest and in flexible instalments—thus offering a combination of accessibility, convenience, and short-term liquidity. Scientific research has shown that this effectively encourages younger generations to use BNPL (Blue et al., 2024). The model has proven especially appealing to younger, digitally literate users who prioritise speed, control, and budget flexibility. BNPL has gained considerable momentum globally, including in the Polish market, where its adoption continues to accelerate (Waliszewski et al., 2024). This dynamic growth highlights the increasing significance of BNPL from both a market development perspective and a consumer behaviour standpoint.

According to Statista data in 2024, BNPL's share of Poland's e-commerce payments stood at 3%, indicating that while this payment method is present, it is still in the initial stage. Poland's result is slightly below the global average of 5%, ranking it among the countries with a moderate level of BNPL adoption, similar to India, Ireland, Indonesia, Singapore, and Spain and relatively low if compared to Sweden or Germany (Statista, 2025).

In light of this rapid expansion, a deeper understanding of the mechanisms driving consumer engagement with BNPL services is becoming increasingly important. While previous studies (Kinanthi et al., 2024) have investigated the initial adoption of financial technologies—including BNPL—drawing on established theoretical frameworks such as the Theory of Planned Behaviour (TPB), the Technology Acceptance Model (TAM), and the Theory of Perceived Risk (TPR), relatively little is known about the post-adoption phase; in particular, user recommendation intention remain underexplored. Existing research primarily focuses on the decision to adopt or reject BNPL services (Akana, 2022; Dadra et al., 2024), leaving open the question of what drives continued usage and advocacy among users. Addressing this gap is essential for two key reasons. Firstly, identifying the drivers of recommendation intention provides valuable insight into whether BNPL services deliver on their perceived value proposition. Secondly, recommendation intention can serve as a behavioural proxy for satisfaction and a predictor of market diffusion through word-of-mouth recommendations.

This study addresses this gap by focusing on the determinants of consumer recommendation intention as regards BNPL services, using recommendation intention as the key dependent variable. Specifically, the article investigates five conceptual constructs identified in the literature as influential in shaping user attitudes towards FinTech services: perceived ease of use, perceived usefulness, perceived trust in the BNPL provider, perceived trust in the BNPL service itself, and perceived risk.

The main objective of this study is to investigate how these factors influence consumers' willingness to recommend BNPL services to others—interpreted here as a manifestation of a positive user experience and the fulfilment of prior expectations. This analytical perspective is grounded in the logic of Expectation-Confirmation Theory (ECT) and the Net Promoter Score (NPS) framework, both of which conceptualise recommendation behaviour as a proxy for consumer satisfaction and loyalty.

This study offers several contributions to the existing body of knowledge. Firstly, it enriches the academic discourse by shifting the analytical focus from one-time adoption to sustained usage and consumer satisfaction. Secondly, it provides empirical insights from the Polish BNPL market, which remains underrepresented in the international literature. Thirdly, it advances the conceptual understanding of perceived trust by disaggregating it into perceived trust in the provider versus perceived trust in the product, thereby enabling

a more nuanced interpretation of the user experience. Finally, the findings yield practical implications for BNPL providers (including FinTech firms) and policymakers, particularly in the areas of user-centred service design and the mitigation of consumer risks.

The article is structured as follows: Section 1 presents the theoretical foundations of the study and outlines the development of research hypotheses, drawing on TPB, TAM, and TPR. Section 2 details the methodology, including the research instrument, data collection procedure, and measurement model construction. Section 3 reports the empirical results and evaluates the structural model. Section 4 discusses the findings in the context of prior research and identifies theoretical and practical implications. The limitations of the study and directions for future research are presented in section 5. The final section concludes the article with a summary of key contributions.

1. Literature review and hypothesis development

The intention to use a new product (in this case, BNPL) is derived from the consumer's attitude toward the innovation. This attitude is shaped by perceived benefits (e.g., usefulness and ease of use), perceived trust and perceived risk. Therefore, three fundamental theories support the explanation of consumer behaviour toward BNPL, which is primarily offered in the context of online sales: the Theory of Reasoned Action (TRA) and its derivatives, i.e. the Theory of Planned Behaviour (TPB) and the Reasoned Action Approach (RAA), assuming that behaviour is determined by the combination of attitude, subjective norms, and perceived behavioural control; the Technology Acceptance Model (TAM), consisting in perceived usefulness and perceived ease of use as factors affecting behaviour; and the Theory of Perceived Risk (TPR), according to which behaviour is conditioned by the consumer's perception of the risk.

The starting point for TRA is the Expectancy-Value Theory (EVT), the foundations of which were formulated by Atkinson (1953). EVT explains the motivation behind behaviour. According to this theory, motivation is a function of expectations (beliefs) regarding success (the degree of certainty that success can be achieved or that a specific benefit can be obtained) and the subjectively perceived value of the outcome (i.e. how valuable the benefit of using a given good or service appears to be). The extent to which individuals believe that achieving the goal is both possible and meaningful influences their engagement in a given task. Other factors—such as stereotypes, prior experiences, and the experiences of others—are already reflected within expectations and value. Expectations depend on beliefs about one's own abil-

ities and the perceived effectiveness of their application. These beliefs also include the anticipated consequences of the behaviour. In turn, the subjective value of the task is closely tied to the importance of the task for identity maintenance, intrinsic value (e.g., pleasure or interest), utility value (e.g., usefulness or relevance), or perceived cost (e.g., time, effort, stress). In other words, the EVT model consists of three components: a response to new information in the form of belief formation, the assignment of value to each belief attribute, and the development of expectations based on beliefs and the values (weights) assigned to them. Fishbein and Ajzen (1975a, 1975b), as well as Fishbein (1967, 1980), extend EVT by formulating the TRA. This theory, originating from social psychology, explains the impact of attitudes (determined by motivation) on actual behaviour and identifies the variables that account for such behaviour (Adamek & Solarz, 2024).

TRA enables the prediction of behaviour based on behavioural intentions, defined as the extent to which a consumer plans to act in a given situation. These intentions are determined by two independent constructs: attitudes, which are a function of beliefs and their associated values (i.e. how (un)favourable the behaviour is perceived to be), and subjective norms, which reflect perceived social pressure (e.g., from parents, peers) to perform or refrain from a specific behaviour. Attitudes toward a given good or service may be positive, negative, or neutral. According to TRA, the intention to perform a particular behaviour precedes the actual behaviour. This intention is shaped by the belief that performing the behaviour will lead to a specific outcome. TRA posits that stronger behavioural intentions lead to greater effort to enact the behaviour. If an individual evaluates the behaviour positively (attitude) and believes it aligns with the values of their social environment (subjective norm), then their behavioural intention—or motivation—to act will be stronger. This intention is highly correlated with actual behaviour. According to TRA, if a person believes that a particular behaviour will not bring any benefit, they form a negative attitude. (Adamek & Solarz, 2024). Due to criticism of theories that explain behaviour primarily through attitudes, and in an effort to increase the model's predictive power, TRA underwent modifications over subsequent decades. One of them is TPB, proposed by Ajzen (1985). By linking beliefs with behaviour, TPB assumes that behavioural intentions are shaped not only by attitudes and subjective norms but also by perceived behavioural control. Perceived behavioural control refers to the extent to which an individual believes it is capable of performing a given behaviour. At the same time, TPB suggests that people are much more likely to engage in certain behaviours when they feel confident in their ability to carry them out successfully. TPB becomes a foundational framework for empirical research on household financial decision-making. For instance, East (1993) demonstrates that subjective norms (the influence of friends and relatives) and perceived control (such as easy access to financial resources) affect individual invest-

ment decisions. In turn, Xiao and Wu (2008) argue that customer satisfaction impacts behavioural intentions and indirectly influences actual behaviour, while Bansal and Taylor (2002) suggest that significant interactions exist between perceived control and intention, perceived control and attitude, as well as between attitude and subjective norms.

Another modification, presented by Fishbein and Ajzen (2010), is referred to as the Reasoned Action Approach (RAA). The RAA model assumes that behaviour is a function of intention, moderated by actual control. Intention is determined by attitude, perceived norm, and perceived behavioural control. The latter affects behaviour both directly and indirectly through intention, while actual control influences perceived control.

Due to its innovative nature and advanced technological dimension TAM—an information systems theory—is also included among the theoretical frameworks that explain the tendency to adopt BNPL services. TAM is based on the concepts of Davis (1989) as well as Davis et al. (1989). According to this theory, as with TRA, behavioural intention is the primary antecedent of actual use of a new solution. This intention directly depends on the individual's beliefs regarding the use of the given technology. Beliefs, in turn, are shaped by two factors: perceived usefulness and perceived ease of use. Moreover, perceived usefulness itself is influenced by perceived ease of use. TAM may be regarded as one of the most important developments of TRA, in which many of the original attitude measures are replaced with technology acceptance constructs, namely ease of use and usefulness. TAM corresponds with Rogers' (1962) Diffusion of Innovations Theory, according to which the adoption of innovation is conditioned by factors such as relative advantage (leading to increased efficiency) and accessibility (understood as clarity and ease of use).

The foundations of TPR were established by Bauer (1960), who defined perceived consumer risk as an undesirable outcome resulting from the consumer's actions. Cunningham (1967) proposed using two dimensions to determine perceived risk: the magnitude of risk and the probability of its occurrence. Florea and Munteanu (2012) added a third component—the risk horizon, which is inversely proportional to perceived risk.

Perceived risk is a multidimensional concept, consisting of components, each of which contributes to the consumer's overall perception of risk (Mitchell, 1999). Mulino et al. (2009) argue that risk aversion is not a stable individual trait but varies for the same person depending on the decision-making context. Perceived risk has a direct influence on consumers' purchase intentions (Wei et al., 2018). Perceived trust, in turn, was first studied in the context of interpersonal relations and only later became recognised as an important factor in the adoption of FinTech innovations (Whitman & Mattord, 2009). Cao et al. (2018) identify it as one of the key factors capable of shaping human behaviour toward technology. Consumers' perceived trust in FinTech solutions has a strong impact on their adoption intentions (Moon & Kim, 2016).

The theoretical framework discussed above allows for the identification of the following constructs used in the empirical investigation: perceived risk, perceived ease of use, perceived usefulness, and perceived trust. Together, these models offer valuable insights into the mechanisms underlying the dynamic development of modern technologies in society, particularly by highlighting key determinants that shape the diffusion of deferred payment services. Figure 1 presents the links between the theories discussed in this subsection and the constructs used in the empirical study.
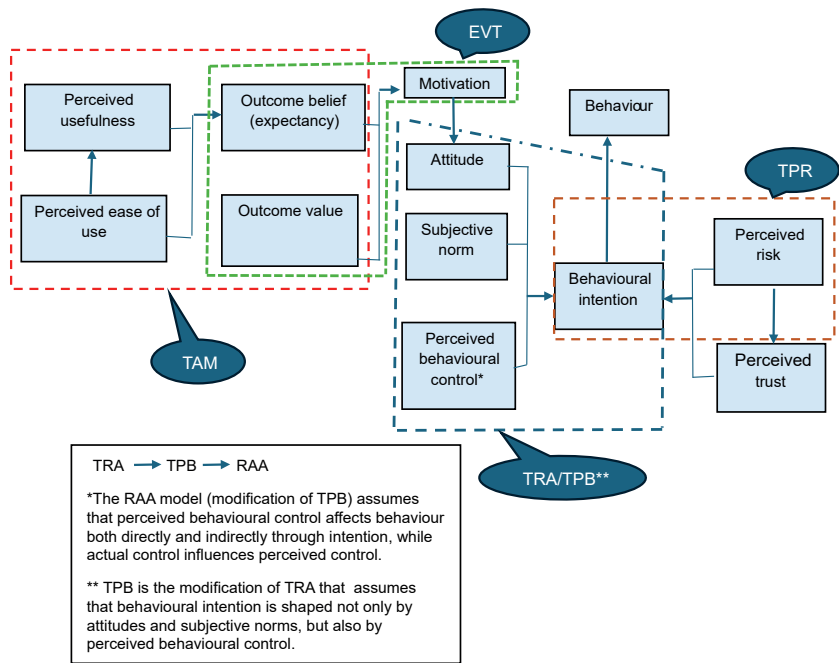
Figure 1. Theoretical framework and constructs used in the empirical study

Source: own work.

Molina-Castillo et al. (2016) argued that wireless and mobile technologies used in m-commerce facilitate social interactions and enable consumers to experience new forms of engagement. To support this claim, they drew upon motivation theory, self-efficacy theory, and TAM to develop a framework explaining consumer behaviour toward mobile payment services. Their extended TAM incorporated intrinsic motivations and extrinsic motivations, both adapted from motivation theory, as well as self-efficacy. Importantly, their model distinguished between mobile pre-payment and post-payment services, and the results varied across these two categories.

Raj et al. (2024b), employing an Extended TPB, demonstrated a relationship between privacy concerns and perceived trust in BNPL services. They found

that attitude, subjective norms, and perceived behavioural control are key explanatory variables for consumer intentions regarding BNPL usage. Hidayat et al. (2024) used the TAM and TPB to analyse user intentions related to BNPL adoption in Indonesia. They identified perceived trust, subjective norms, and perceived risk as determinants influencing the intention to use BNPL. However, no significant relationship was found between perceived usefulness and usage intention, nor between perceived ease of use and usage intention.

Akana (2022), on the other hand, argued that for US consumers, a key factor influencing the use of deferred payment services is user-friendliness. A study by Jagadhita and Tjhin (2023) also investigated factors influencing user intentions to adopt deferred payment services in Indonesia. Drawing on TAM variables and integrating them with perceived risk and perceived trust as a mediating variable, they demonstrated that perceived ease of use, perceived usefulness, and perceived trust positively affects the intention to continue using BNPL. Moreover, perceived trust was identified as a partial mediator between both perceived ease of use and perceived usefulness. Behera and Dadra (2024), in their study on consumer attitudes toward deferred payments, found that the key determinants of those attitudes are structural assurance, flexibility, affordability, and perceived usefulness.

Van Tuan et al. (2024) aimed to identify determinants of BNPL usage, incorporated perspectives from the TRA, TPB, TAM, and TPR, among other theories. Based on this theoretical synthesis, they proposed a model comprising five key factors influencing BNPL usage intention: social influence, digital financial knowledge, perceived ease of use, perceived benefits, and perceived risks. According to their findings, social influence had the strongest effect on consumer attitudes toward BNPL usage. Supporting this conclusion, Aisjah (2024) also emphasised the significance of social influence, particularly highlighting the role of social media intensity in shaping consumers' intention to use deferred payment services.

Schomburgk and Hoffmann (2022), in their study of Australian consumers, observed that younger, tech-savvy individuals with a positive attitude toward innovation are more likely to adopt BNPL services. Osman et al. (2024) applied the TPB in a study focusing on Generation Z and observed that consumer choices regarding deferred payment options may be shaped by multiple factors. Among the most important, they identified attitude, subjective norms, perceived behavioural control, and, notably, perceived moral obligation to repay debt. In turn, materialism, money management skills, and self-efficacy were found to positively influence these four variables, reinforcing them and leading to greater use of BNPL services. Materialism reflects the influence of the desire to acquire goods on financial attitudes and behaviour, money management skills represent practical financial constraints, and self-efficacy reflects an individual's confidence in financial decision-making.

In their study, Raj et al. (2024a) emphasised the crucial role of perceived risks and perceived benefits in shaping consumer intentions to use deferred payment services. They argued that it is essential to examine how perceived benefits influence the adoption of BNPL solutions, as such benefits are among the primary drivers of technology acceptance. Conversely, understanding perceived risk is critical for predicting consumers' adoption intentions, as it negatively affects users' willingness to accept and utilise modern financial services. Their empirical findings revealed a significant negative effect of perceived risk on consumers' behavioural intention, underscoring the relevance of privacy concerns in the digital environment. On the other hand, perceived benefits—particularly convenience, financial flexibility, increased purchasing power, budgeting capabilities, and potential cost reductions—were found to enhance consumers' intention to use BNPL. Furthermore, performance expectancy (understood as ease of use) and social influence were also observed to positively affect behavioural intention. Finally, the study showed that consumers' behavioural intention increases their intention to continue using deferred payment services.

The review of theoretical frameworks and empirical findings provides the basis for formulating the study's research hypotheses. These hypotheses focus on assessing the effects of constructs identified in the literature—namely, usage intention, attitudes toward BNPL, perceived usefulness, and perceived risk—on consumer satisfaction. It is further assumed that satisfaction with BNPL services translates into a willingness to recommend them, and more broadly, into the diffusion of use through consumer advocacy.

Based on the assumptions of TAM and empirical findings of Akana (2022), as well as Jagadhita and Tjhin (2023), we propose the following hypothesis:

H1: Perceived ease of use of BNPL services positively affect consumer recommendation intention.

The literature highlights the performance expectancy and perceived usefulness of BNPL as a personal finance management tool (Jagadhita & Tjhin, 2023; Min & Cheng, 2023; Relja et al., 2024). The ability to postpone or reschedule payments increases consumer satisfaction and encourages recommendation behaviour. This leads to the following hypothesis:

H2: The primary reason consumers recommend BNPL services is their perceived usefulness in managing personal and household finances.

TRA, supported by TPR and respective empirical studies, suggests that perceived trust can either strengthen (Rouibah et al., 2016), weaken or have no impact (Hoo et al., 2024) on consumers' intention to use BNPL. Regardless of direction, perceived trust remains a critical determinant of recommendation intention. Therefore, we hypothesise:

H3: Consumer recommendation intention is determined by perceived trust.

Given the potential distinction between perceived trust in the BNPL provider and perceived trust in the BNPL product, we further specify this relationship:

H3A: Consumer recommendation intention is determined by perceived trust in the provider.
H3B: Consumer recommendation intention is determined by perceived trust in the product.

According to TPR and supporting empirical studies (e.g., Raj et al., 2024a; Rouibah et al., 2016), perceived risk weakens both perceived trust and behavioural intention. Assuming that consumers who are uncertain about a service are unlikely to recommend it, we posit:

H4: Perceived risk associated with BNPL services negatively affects consumers' intention to recommend them.

2. Methods

Expectation fulfilment is inherently multidimensional; however, in this study, it is operationalised through the self-declared likelihood of recommending BNPL to family or friends. This approach is grounded in the widely accepted premise that the greater the satisfaction, the stronger the consumer's intention to recommend a given solution. Accordingly, recommendation intention is used as a proxy for consumer satisfaction. This conceptualisation aligns with the logic of the Net Promoter Score (NPS) framework proposed by Reichheld (2003), which has since been widely adopted in customer satisfaction research (Dawes, 2024).

A graphical representation of the research hypotheses and the empirical model is presented in Figure 2. Additionally, for validation purposes, an alternative model was estimated (Figure 3), based on a simplified construct structure. Due to the cognitive similarity of the concepts, *perceived trust in the BNPL provider* and *perceived trust in the BNPL services* were merged into a single composite construct—*perceived trust in BNPL*. This approach aimed to assess the robustness of the findings with respect to a simplified conceptualisation of perceived trust in the model.

The proposed model includes five fundamental constructs that may shape recommendation intention: (1) perceived ease of use, (2) perceived usefulness, (3) perceived trust in the BNPL provider, (4) perceived trust in BNPL services, and (5) perceived risk. These constructs reflect the assumption that consum-
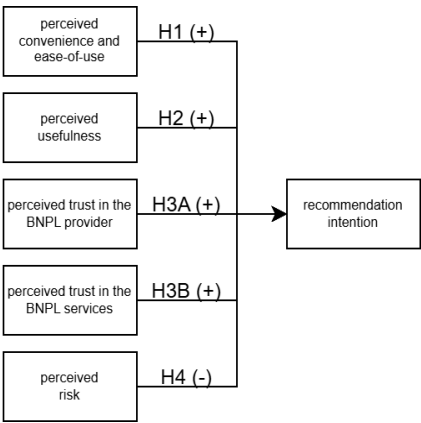
Figure 2. Baseline framework

Source: own work.
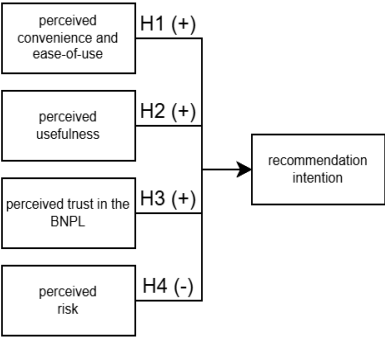
Figure 3. Alternative framework

Source: own work.

er expectation fulfilment depends not only on the core functionality of the instrument—namely, its ability to facilitate intertemporal decision-making—but also on perceived risk, and ease of use.

The data used in this analysis were obtained from a broader study examining the use of BNPL services among Polish consumers. The questionnaire included a cover letter informing respondents of the anonymity and voluntary nature of their participation, a demographic section, and a series of closed-ended, open-ended, and Likert-scale-based items.

For the purposes of the present analysis, responses provided on a 7-point Likert scale were used, where 1 indicated "strongly disagree" and 7 indicated "strongly agree." The model's constructs were operationalised using items measured on this scale. A detailed list of the measurement items assigned to each construct is presented in Table 1.

Table 1. Measurement items and construct definitions

Construct	Code	Measurement statement
Recommendation intention	RECOM_INT	I would recommend BNPL to my family and friends as a convenient payment method.
Perceived ease of use	PEOU_1	I believe using BNPL is convenient.
	PEOU_2	Using BNPL is intuitive and easy to understand.
	PEOU_3	BNPL transactions are completed quickly and efficiently, without unnecessary complications.
Perceived usefulness	PU_1	I believe that using BNPL is beneficial for my finances.
	PU_2	BNPL helps me manage my budget more effectively by allowing me to split payments into smaller parts.
	PU_3	BNPL allows me to avoid fees or interest typically associated with traditional consumer credit, making it a more advantageous option.
Perceived trust in the BNPL provider	PTRUST_P_1	I believe the company offering BNPL is transparent and honest about all fees and service terms.
	PTRUST_P_2	I consider the BNPL service to be reliable and dependable in all purchase situations.
	PTRUST_P_3	I believe companies offering BNPL are trustworthy.
Perceived trust in BNPL services	PTRUST_S_1	I am confident that using BNPL does not expose me to unexpected fees.
	PTRUST_S_2	I am confident that third parties will not gain access to my personal data when using BNPL.
	PTRUST_S_3	I believe that BNPL services offered by providers are secure.
	PTRUST_S_4	It is easy to find information about the terms and conditions of BNPL payments.
Perceived risk	PRISK_1	The ease of going into debt and the risk of falling into a debt trap.
	PRISK_2	Compulsive shopping and purchasing unnecessary or unneeded products.
	PRISK_3	Lack of understanding of BNPL rules, including the fee and interest calculation mechanisms.
	PRISK_4	Loss of personal data.

Note: PTRUST is a composite variable combining PTRUST_P and PTRUST_S.

Source: own work.

The survey was conducted using the CAWI (Computer-Assisted Web Interviewing) technique in August 2024. It was commissioned by PayPo Sp. z o.o.—one of the leading BNPL service providers in Poland—and carried out by the BioStat® Research and Development Centre. Data were collected from a quota sample of 350 users of deferred payment services. Respondents were selected based on two socio-demographic criteria: gender and age, in accordance with the profile of BNPL users reported by the Polish Credit Information Bureau (BIK) as of 31 December 2023. The sample was structured to reflect the age and gender distribution of BNPL users in Poland, as documented in the BIK dataset. Since official statistics in Poland do not disaggregate data by non-binary gender identities—and the sample was intended to mirror the demographic profile of users recorded in BIK—gender was used as a qualification criterion during the sampling process.

Model parameters were estimated using Partial Least Squares Structural Equation Modelling (PLS-SEM). This method is particularly suitable when (1) the sample size is moderate, (2) the assumption of normality is not met, (3) the model includes both reflective and formative constructs, and (4) the primary aim is to maximise the explained variance of the endogenous constructs. PLS-SEM has also been widely employed in recent studies on BNPL services (Adamek & Solarz, 2024; Dadra et al., 2024; Kumar & Nayak, 2024). Model estimation was performed in R (version 4.4.2) using the SEMinR package (version 2.3.4) for structural equation modelling and the psych package (version 2.4.12) for assessing reliability and validity of the measurement model. The criteria for model assessment are presented in Table 2.

Table 2. Model assessment summary

Assessment category	Criterion	Threshold
Indicator reliability	Factor loadings (λ)	$\lambda \geq 0.70$
Internal consistency	Composite reliability (CR)	$0.70 \leq CR \leq 0.95$
	Cronbach's alpha (α)	$\alpha \geq 0.70$
	rho_C, rho_A	$\rho \geq 0.70$
Convergent validity	Average variance extracted (AVE)	$AVE \geq 0.50$
Discriminant validity	Heterotrait–Monotrait ratio ($HTMT$)	$HTMT < 0.90$
Coefficient of determination	R^2 values for endogenous constructs	$R^2 \geq 0.30$ (satisfactory); ≥ 0.20 (moderate); ≥ 0.10 (weak)
Path significance	Bootstrapping (10,000 resamples)	$p < 0.05$

Source: based on (Hair et al., 2021; Streukens & Leroi-Werelds, 2016).

The presented SEM evaluation criteria are widely applied in the literature, which ensures their methodological credibility and validity. By meeting the conceptual assumptions of the SEM framework, it becomes possible to reliably estimate the relationships between variables and confirm the correctness of the proposed theoretical structure.

3. Results

A total of 350 respondents participated in the study. After verifying the completeness and consistency of the responses, all questionnaires were deemed valid and included in the analysis. Table 3 presents the socio-demographic characteristics of the respondents.

Table 3. Respondents' socio-demographic characteristics

Characteristic of the respondent	$N = 350$	
gender		
female	208	(59%)
male	142	(41%)
age		
18-24 y.o.	36	(10%)
25-34 y.o.	111	(32%)
35-44 y.o.	115	(33%)
45-54 y.o.	59	(17%)
55-64 y.o.	19	(5.4%)
65 y.o. or more	10	(2.9%)
education level		
below high school level	16	(5%)
high school level	130	(37%)
university level	204	(58%)
place of residence		
village	67	(19%)
small city (up to 20k inhabitants)	34	(10%)
medium-sized city (20k–99k inhabitants)	74	(21%)
big city (100k–200k inhabitants)	38	(11%)
large city (200k–500k inhabitants)	54	(15%)
very large city (above 500k inhabitants)	83	(24%)

Source: own work.

Women accounted for 59% of the sample. The most numerous age group was from 35 to 44 years, accounting for 33% of the sample, while the over 65 years old group constituted nearly 3%. Educationally, 58% had university-level education, and 37% had completed high school. Most respondents (89%) lived in an urban area, with around 24% residing in very large cities (above 500k inhabitants).

The model converged in a single iteration, indicating stability and proper specification. A graphical representation of the estimated model is provided in Figure 4.
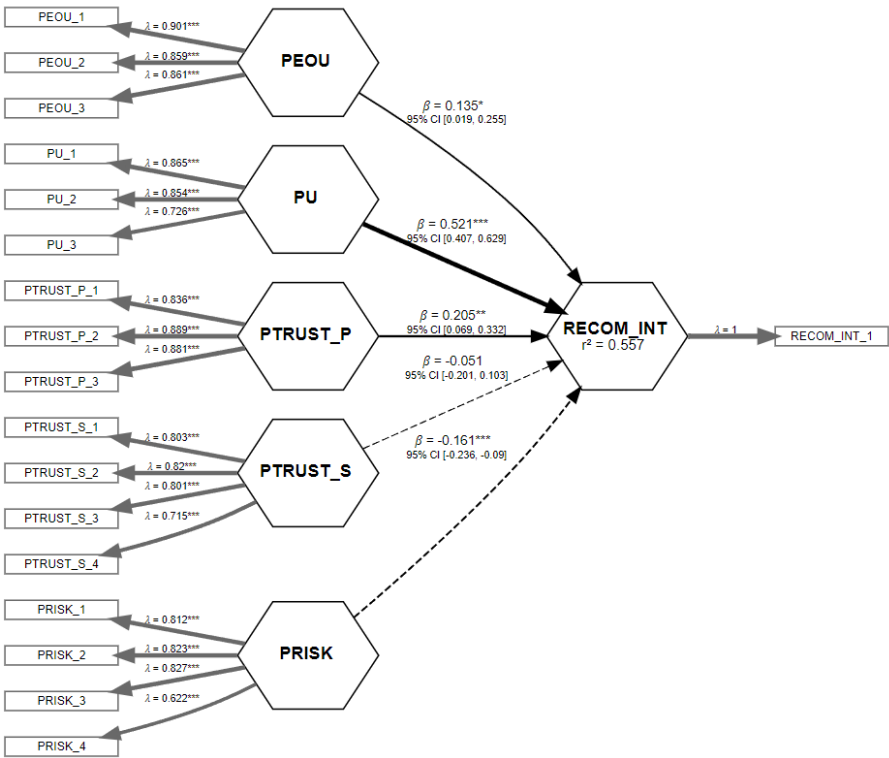
Figure 4. Estimated structural model

Source: own work.

Factor loadings for the items are generally above the recommended threshold of 0.70, with the exception of item PRISK_4, which reached a value of 0.622. However, removing this item did not improve the model fit or overall quality; therefore, it was retained in the model. The R^2 value of 0.557 indicates a satisfactory level of variance explained by the model. A detailed assessment of the model's reliability and validity is presented in Table 4.

All values of Cronbach's alpha, rho_C, and rho_A exceed the threshold of 0.70 while remaining below 0.95, indicating an appropriate level of internal

Table 4. Reliability and validity of model

	Alpha	rhoC	rhoA	AVE
PRISK	0.779	0.857	0.820	0.602
PEOU	0.851	0.907	0.917	0.764
PU	0.757	0.857	0.801	0.668
PTRUST_P	0.838	0.903	0.844	0.755
PTRUST_S	0.794	0.866	0.806	0.617

Note: As RECOM_INT is measured with a single item, a separate presentation is redundant.

Source: own work.

consistency without suggesting item redundancy. Additionally, all composite reliability (CR) coefficients are above 0.80, and the average variance extracted (AVE) values surpass the recommended threshold of 0.50, confirming both the reliability and convergent validity of the model.

Furthermore, all HTMT values remained below the conservative threshold of 0.90, except for the theoretically expected relationship between perceived trust in the BNPL provider (PTRUST_P) and perceived trust in BNPL services (PTRUST_S), which reached a value of 0.903. Given the conceptual proximity of these constructs, this minor exceedance is not considered problematic and justifies their treatment as analytically distinct variables. Overall, the validation results confirm that the model is suitable for testing the research hypotheses presented in Table 5.

Table 5. Structural model results: Path estimates and hypothesis support

Hypo-thesis	Structural path	Path coefficient	95% CI	t–Statistic	Signifi-cance	Result
H1	PEOU -> RECOM_INT	0.135	[0.021,0.255]	2.250	significant	confirmed
H2	PU -> RECOM_INT	0.521	[0.406,0.627]	9.264	significant	confirmed
H3A	PTRUST_P -> RECOM_INT	0.205	[0.067,0.334]	3.021	significant	confirmed
H3B	PTRUST_S-> RECOM_INT	−0.051	[−0.197,0.105]	−0.663	not signifi-cant	rejected
H4	PRISK-> RECOM_INT	−0.161	[−0.237, −0.091]	−4.355	significant	confirmed
H3*	TRUST -> RECOM_INT	0.162	[0.017,0.307]	2.203	significant	confirmed

* The alternative model yielded highly comparable results for the remaining path coefficients and construct reliabilities.

Source: own work.

Hypotheses H1, H2, and H4 are supported, as indicated by statistically significant effects in the expected direction. However, the interpretation of hypotheses H3, H3A, and H3B requires a more nuanced discussion. Hypothesis H3B, which assumed a significant effect of perceived trust in the product on recommendation intention, was not empirically supported. The results suggest that factors related to perceived trust in the institution providing the BNPL service play a more substantial role than perceived trust in the product itself. This finding confirms hypothesis H3A. The alternative model confirms that composite perceived trust significantly enhances recommendation intention. Thus, hypothesis H3 is supported.

4. Discussion

From the perspective of BNPL's growth potential, a key issue is whether this financial innovation contributes to increased consumer satisfaction. If so, its broader adoption can be expected—especially since the added value BNPL delivers to consumers may translate into benefits for merchants and lenders (Alcazar & Bradford, 2021). In this article, based on previous research exploring the determinants of BNPL adoption (Hoo et al., 2024; Raj et al., 2024a; Relja et al., 2024), consumer recommendation intention is modelled as a result of consumer perceptions in five key dimensions, represented by the following constructs: perceived risk, perceived ease of use, perceived usefulness, perceived trust in the BNPL provider, and perceived trust in the BNPL service itself. To deepen the discussion and derive more nuanced conclusions, it is essential to analyse the internal response structure within each construct, as it reveals which specific aspects of consumer perception drive the overall evaluations.

The results of this study confirm that BNPL contributes positively to consumer recommendation intention, due to its perceived usefulness. This finding supports H2 and is consistent with previous insights on perceived benefits reported by BNPL users (Relja et al., 2024; Schomburgk & Hoffmann, 2022; Tan, 2022). Deferred payments allow consumers to obtain and use products immediately, which increases satisfaction (Banerjee & Tóth, 2025). In this study, 52.5% of respondents agreed that BNPL is beneficial for their finances, over 60% stated it helps them manage their budget by distributing payments over time, and nearly 69% emphasised its financial attractiveness due to the absence of fees and interest. These results indicate that when consumers consider specific financial benefits, their satisfaction with BNPL increases. The findings are encouraging, as they reflect financial responsibility, pragmatism, and foresight among respondents. In their eyes, BNPL primarily

serves as a tool to optimise household cash flow rather than a way to spend beyond their means. The absence of an association between BNPL and excessive debt, as well as the intention to use it solely for deferring payments, can be interpreted as a form of responsible consumption (Aalders, 2022). This optimism also extends to users' willingness to promote this financially rational approach to BNPL within their social circles.

Over 80% of respondents agreed with statements indicating that BNPL is an attractive service due to its accessibility, intuitive use, and ability to facilitate quick transactions. This finding aligns with previous research by Kiran and Mishra (2024), as well as Kiran et al. (2024). Therefore, perceived ease of use emerges as important factors influencing user satisfaction and their willingness to recommend BNPL services to family and friends. These results provide empirical support for H1. A substantial proportion of the surveyed sample also demonstrated awareness of the risks associated with BNPL usage. The study examined perceived risk from the user's perspective—specifically, the potential consequences that could negatively impact their well-being. Among the risk dimensions assessed, financial concerns such as falling into a debt trap, were the most frequently cited, confirming the emphasis placed on this issue by Krisnawati and Sam (2024), Bagniewski et al. (2024), and Gilbert and Scott (2023). Behavioural concerns, such as compulsive buying, highlighted by Bergheim et al. (2024), were also acknowledged, with over 65% of respondents agreeing that BNPL may contribute to such outcomes.

Importantly, perceived risk was shown to reduce user satisfaction and discourage recommendations of BNPL to others. These findings support H4. If, as Raj et al. (2024a) argue, perceived risk reduces consumers' intention to use BNPL, and if, as noted by Bagniewski et al. (2024), BNPL—like traditional credit—can lead to over-indebtedness, it follows that individuals are unlikely to recommend a service they themselves approach with caution. This reasoning is particularly relevant given that making a recommendation implies a degree of perceived trust and a positive orientation towards the recipient.

The findings concerning the role of perceived trust in shaping the intention to use BNPL services remain inconclusive. While Hidayat et al. (2024) confirmed the significance of this variable, Hoo et al. (2024) reported no significant effect of perceived trust on usage intention. In light of these discrepancies, perceived trust was examined at two distinct levels: perceived trust in the BNPL service itself and perceived trust in the institution offering it. Perceived trust in the BNPL service was relatively high, with at least 58% of respondents expressing no concerns about using it—and as much as 70% when the issue of personal data was excluded. Furthermore, no fewer than 63% of participants indicated perceived trust in the BNPL provider. The results suggest that perceived trust in the institution plays a more substantial role than perceived trust in the payment mechanism itself. Perceived trust in BNPL as a financial instrument does not exert a significant influence on con-

sumers' willingness to recommend BNPL to friends or family. This supports H3A while leading to the rejection of H3B. These findings imply that consumers are more likely to base their evaluations on the perceived credibility and reputation of the BNPL provider than on the structure of the BNPL mechanism per se. Although the BNPL mechanism is relatively standardised and easy to comprehend—features that tend to be positively evaluated and contribute to overall satisfaction—the ultimate impact of these perceptions may be mediated by the consumer's view of the provider.

As shown by Dong et al. (2025), introducing mandatory reporting requirements for BNPL providers can alter consumer behaviour, lowering the rate at which BNPL transactions convert into long-term credit and reducing service usage among consumers with low creditworthiness. This emphasises the need to investigate whether consumer perceived trust in the provider is derived solely from the BNPL offer (e.g., transparency, communication, convenience, availability, data protection) or whether it also reflects the provider's broader image within the consumer finance landscape. When perceived trust is treated as a composite construct—without distinguishing whether it relates to the provider or the product—it significantly enhances the fulfilment of consumer expectations and increases their willingness to recommend BNPL services. This confirms H3. These findings are consistent with the prior literature (Raj et al., 2024b), which highlights the pivotal role of perceived trust in driving BNPL adoption.

This finding is particularly noteworthy due to the coexistence of two opposing forces: perceived risks associated with BNPL negatively affect consumer recommendation intention, yet perceived trust serves as a compensating factor that reinforces positive behavioural outcomes. This suggests that BNPL users, despite being aware of the inherent risks of the product, continue to perceive the benefits of deferred payment as outweighing the potential downsides. This aligns with previous research indicating that both perceived benefits and perceived risks influence consumers' intention to continue using mobile payment solutions (Adamek & Solarz, 2024). A similar dynamic appears to hold true for BNPL, where satisfaction and recommendation intention are shaped by a constellation of factors including perceived risk, perceived ease of use, and perceived usefulness.

5. Limitations and future research

Despite the rigour of this research, several limitations can be identified. Firstly, the study is constrained by the structure of its sample, which reflects only the distribution of age and gender, without incorporating other demo-

graphic characteristics such as income, education, or household composition. Another limitation is that the relationships that can be identified, particularly those related to attitudes and behaviours, are complex. Therefore, it is not always possible to clearly indicate their direction.

The conducted research demonstrates several possible directions for further research in the area addressed in this paper. One possibility would be to examine how perceived risk modifies the constructs derived from the TAM, and to what extent. Another approach would be to expand the models with new psychological constructs. Future research may also focus on extending the current model by examining how consumer satisfaction translates into repeat usage and increased engagement with BNPL services.

Conclusions

The findings confirm that the most significant factor affecting user satisfaction and their willingness to recommend BNPL is the perceived usefulness. Users predominantly perceive BNPL as a practical tool for managing household budgets and improving financial liquidity. Moreover, the absence of interest charges and the flexibility of repayment make BNPL an attractive alternative to traditional forms of purchase financing. In contrast, ease of use plays only a marginal role in shaping overall satisfaction, likely because attributes such as intuitiveness or transaction speed are now considered standard expectations for digital services.

Perceived trust proves to be a multidimensional construct. While perceived trust in the BNPL mechanism itself did not significantly influence the willingness to recommend BNPL service, perceived trust in the institution offering BNPL proved to be a decisive factor. In this study, respondents placed strong emphasis on the reputation, transparency, and credibility of financial service providers, suggesting that the brand and communication strategy of the provider may heavily influence the overall evaluation of BNPL service.

At the same time, perceived risk significantly reduced satisfaction—especially in relation to concerns about excessive debt, overspending, and a lack of understanding of how BNPL works. This indicates that even if BNPL service offers clear benefits, the accompanying concerns may effectively discourage users from recommending it to others. Perceived risk may induce cognitive dissonance, weakening the positive emotional response associated with using BNPL, thereby reducing overall satisfaction.

The study's results point to some theoretical and practical implications. Though its findings are in line with the key assumptions of TAM theory, some emphases are shifted. While perceived usefulness is a primary predictor of

satisfaction and recommendation intention, ease of use plays a marginal role. This may mean that in a mature digital services ecosystem, usefulness is more important than the technical aspects of service, which influences how ease of use is perceived. The marginal impact of ease of use suggests that technology acceptance theory should consider a new phenomenon: a situation in which users take high service standards for granted, meaning this factor will not necessarily translate into their recommendation intention. This suggests a reinterpretation of TAM to adapt it to FinTech services.

The results here confirm the significant role of risk in the consumer decision-making process. As expected, consistent with TPR theory, perceived risk has a negative impact on satisfaction and subsequent BNPL recommendation. However, due to the specific risks (including behavioural and informational risks) inherent to this service, it hints that TPR may need to be adapted to more complex services, including BNPL.

The article also contributes to the development of trust theory in perceived financial services. The study reveals that perceived trust should be treated as a multidimensional construct, with individual dimensions having different weights in consumer behaviour. Therefore, it should not be treated as a single category. This reinforces the thesis that perceived security and reputation of a financial institution are stronger determinants of behaviour than the characteristics of the financial tool itself.

The study's findings also point to several practical implications. Above all, BNPL service providers should focus on building perceived trust and minimising perceived risk, for example, through transparent communication, implementing safeguards against over-indebtedness, and enhancing data protection. Therefore, information about payment terms should be published in a clear and easily understandable form. It would be undesirable to focus on information describing BNPL solely as a tool for improving budget liquidity or leading to more flexible budget management. The debt nature of this service should be clearly defined. Furthermore, a transparent fee and penalty policy is essential. Communication should be based on credibility and reputation, and building trust in the BNPL brand is as important as the user experience itself.

Taken together, the findings highlight that while BNPL offers considerable market potential, its continued success depends on the careful balancing of functional benefits with a responsible approach to trust and risk management. Ultimately, it is the perceived usefulness and the reputation of the provider that shape the consumer's positive experience—not merely technological ease of use.

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