



Future Payments Today: “Buy Now Pay Later” Adoption in Helsinki regions and its potential pitfalls

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Bachelor Thesis

International Business

2025

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Arcada University of Applied Sciences: International Business, 2025

Abstract:

This study examines the adoption and usage of "Buy Now, Pay Later" (BNPL) services among consumers in the Greater Helsinki Region (GHR), exploring associated financial risks and management behaviors. BNPL services have rapidly transformed consumer payment patterns, particularly among young individuals. The aim was to assess the demographics of BNPL users, their level of economic literacy, behavioral tendencies, and strategies to mitigate financial risks. Guided by theories such as the Technology Acceptance Model (TAM), Diffusion of Innovation (DOI), Theory of Planned Behavior (TPB), and financial literacy frameworks, the research applied a quantitative method through an online survey that gathered 107 responses.

Results reveal that BNPL users in GHR are primarily young adults aged 18–24, possessing relatively high financial awareness but still remain vulnerable to impulsive behaviors and cognitive biases. Most respondents used BNPL cautiously, allocating only a small percentage of their monthly income to repayments, but risks like hidden fees, debt accumulation, and credit score damage remain key concerns. The study highlights the need for financial education and regulatory transparency to promote responsible BNPL use. Limitations include the focus on a young, educated demographic and the Helsinki context, suggesting the need for broader and longitudinal studies. The research concludes by recommending policy interventions, mandatory financial education, and provider transparency to ensure sustainable BNPL adoption.

Keywords: Buy Now Pay Later (BNPL), Consumer Behavior, Financial Literacy, Technology Adoption, Economic Risks, Greater Helsinki Region, Policy Intervention, Financial Education

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1 Introduction

The “Buy Now Pay Later” (BNPL) payment model developed as a main substitute for conventional credit systems, creating new shopping habit and retail industry frameworks. BNPL is a modern financial payment method which allows customers to acquire goods directly and divide their payments across smaller installments without interests attached. (Relja et al., 2024). This model represents a shift from traditional borrowing, offering an alternative that aligns with the expectations of a digitally engaged consumer base. Financial technology firms launched the BNPL concept before its adoption by regular retailers and banking establishments to become a distinct modern payment method usable both digitally and face-to-face. Younger consumers lead the rise of BNPL use as the payment method appeals to their willingness to use it for its easy-to-use nature and assumed cost-effectiveness. The rapid expansion of the BNPL market brings out discussions that deal with changing consumer behaviors and financial understanding along with debt management issues (Kalmi & Ruuskanen, 2018)

1.1 Problem Statement:

BNPL services have been a major disruptor to a formerly established credit system around the globe, transforming the retail ecosystem - not only in Finland. Being an ideal hub within advanced digital infrastructure, the Helsinki region is furthermore an interesting place to examine the adoption of BNPL solutions. However, ongoing debate are discussing about potential pitfalls of BNPL services, including the financial risks, inadequate regulatory oversight, and the psychological impact of this payment method on spending habits (Akhter & Hoque, 2022). These concerns highlight the need for a full understanding of how BNPL operates within specific regional contexts. The BNPL phenomenon presents an interesting case study for examining the intersection of technological innovation, consumer behavior, and financial risk (Consumer Financial Protection Bureau, 2021). This study aims to provide critical insights regarding responsible financial practices and the implications of BNPL adoption in the Helsinki region.

1.2 Aim:

The aim of this study is to investigate the adoption of "Buy Now, Pay Later" (BNPL) services among consumers in the Helsinki regions while analyzing their buying behaviors and financial risks involved with such payment method. The research investigates local BNPL user preferences and behaviors to determine why this payment method appeals to customers through factors such as convenience and perceived affordability and ease of access. This study investigates the drawbacks of BNPL services which include accumulating debt and excessive spending and insufficient financial understanding that affects consumer financial health negatively (Angrisani et al., 2023). Ultimately, this thesis aims to provide insights into how BNPL services impact consumer behavior and financial stability in Helsinki. It also offers recommendations for educational organizations to address the challenges posed by BNPL adoption while promoting responsible usage among consumers.

To acknowledge those matters in a clearer situation, these focus research questions will be asked and considered throughout the research study:

1. What are the demographic characteristics of users of BNPL services in GHR and what level of economic literacy do they have?
2. How does the use of BNPL services affect the financial management practices of GHR residents?
3. What measures (financial education, policy interventions) do residents take to avoid potential pitfalls associated with BNPL services?

1.3 Demarcation:

The research uses the Helsinki region as a primary investigation ground because its blend of technological strength and customer acceptance of modern financial offerings makes it exceptional. This research aims to deliver broader implications about BNPL but ultimately targets an investigation of consumer patterns and market obstacles from the location. This research study does not aim to include evaluations of BNPL throughout the international marketplace or its consequences for industries past retail. The established boundaries create space for a detailed investigation of the research topic. The research focuses exclusively on retail applications of BNPL services since these operations do not occur frequently in healthcare or educational organizations. These boundaries maintain research focus while

studying a considerable portion of the BNPL business market. The study will use global research data, but local findings remain its main focus. The researcher designs this study to provide relevant guidance about BNPL to local policymakers and businesses and consumers while recognizing that more extensive insights will need additional study in various locations and industries.

1.4 Definitions:

The following important terms are defined in this thesis to prevent confusion and misunderstanding as the work progresses. "*Buy Now, Pay Later (BNPL)*" refers to a payment model that allows consumers to make instant purchases through time-based installment plans (Schomburgk & Hoffmann, 2023). "Adoption" refers to the process through which consumers integrate Buy Now, Pay Later (BNPL) services into their purchasing habits (Shaikh & Karjaluo, 2015). The term "Potential Pitfalls" highlights the risks associated with BNPL usage, including tendencies toward overspending, accumulation of debt, and possible financial instability (Chatterjee & Rose, 2012). Lastly, "The GHR" stands for the Greater Helsinki Region, which is considered as the geographical focus of this study.

2 Theory

The rapid expansion of "Buy Now, Pay Later" services has reshaped consumer payment behavior, particularly in urban areas like the Great Helsinki Region. This chapter outlines the theoretical and empirical frameworks that will guide our investigation into the adoption models of "Buy Now Pay Later", historical perspectives of how "Buy Now, Pay Later" services are applied in practice based on the context of demographic characteristics and economic literacy of the users, and the theoretical foundation of mitigation measures for Buy Now, Pay Later services.

2.1 BNPL in the Fintech Ecosystem:

Historically, credit cards and personal loans have dominated consumer credit, often requiring thorough credit checks and incurring interest charges. BNPL offers user credit features which allow clients to purchase items through scheduled installment payments instead of immediate full-payment methods (Relja et al., 2024). Unlike traditional credit cards, BNPL often requires no formal credit checks, targets younger demographics, and is integrated into e-commerce

platforms (Demirgüç-Kunt, 2021). Though BNPL services charge no interest payments, the clients must pay fees for late payments or non-payment which result in significant additional expenses. (Schomburgk & Hoffmann, 2023). This shift has been facilitated by the rise of fintech companies that leverage technology to streamline the application and approval processes, making credit more accessible to a broader demographic, including those with limited credit histories (Lupşa-Tătaru et al., 2023). Understanding BNPL requires a review of its evolution and its relationship within the broader financial services sector.

2.2 Technology Adoption Theory:

Theories such as the Technology Acceptance Model (TAM) (Davis, 1989) or the Diffusion of Innovation (Rogers, 1962) framework have been widely applied across various aspects of daily life, including Mobile Learning (Buabeng-Andoh, 2018), Healthcare Services (Novikov et al., 2024) and Online Streaming Platforms (Camilleri & Falzon, 2021) to study the adoption of technology advancements. With the rapid increase in the use of alternative payment methods like BNPL, it is crucial to tailor these theories to the BNPL context. This study uses such models to illustrate how population characteristics and economic learning abilities impact BNPL adoption yet they operate independently from each other. The Technology Acceptance Model (TAM) (Davis, 1989) stands as one of the primary frameworks for research concerning technology adoption by users. Two essential variables determine adoption based on the TAM framework: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). PU refers to how effectively users believe a technology improves their performance. In the case of BNPL, this includes perceptions of convenience, flexibility, and accessibility. PEOU concerns the ease with which users interact with a technology. The sign-up and checkout systems from BNPL providers focus on effortless procedures to minimize first-time usage difficulties (Davis, 1989). TAM helps explain why younger consumers, who find BNPL easy to use and perceive it as beneficial, are more likely to adopt it.

In contrast, Diffusion of Innovation (DOI) Theory (Rogers, 1962) explains how new financial technologies spread through different segments of the population. The key adoption categories innovators, early adopters, early majority and late majority deliver a structure to understand BNPL user groups based on their acceptability toward financial innovation. Financially inexperienced young people tend to adopt BNPL ahead of others because they see it as convenient and prefer not to pay upfront. In the contrary, “Late majority” segments approach

BNPL services with caution because they need to see both regulatory support and social approval before using the services (Rogers, 1962). DOI Theory connects directly to the first research question by explaining how demographic characteristics influence the speed and extent of BNPL adoption.

The Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003) provides additional approach to examining the interaction between demographic factors such as age, education, and financial background and social influences in shaping BNPL adoption. The theory adopts and extends TAM (Venkatesh et al., 2003)) through multiple factors which influence technology adoption. "Performance Expectancy" refers to the perception that using Buy Now, Pay Later (BNPL) services offers financial benefits, such as improved cash flow management and the ability to defer payments without incurring interest. In contrast, "Effort Expectancy" highlights the perceived ease of using BNPL, largely due to its integration with e-commerce platforms. Additionally, "Social Influence" reflects the role of peer recommendations and online media promotion in encouraging younger consumers to adopt BNPL services. Many young users are introduced to BNPL either through recommendations from friends or colleagues or through exposure to advertising on digital platforms. Finally, "Facilitating Conditions" relate to the availability of supportive infrastructure - such as mobile banking applications, credit evaluation tools, and consumer protection mechanisms - that collectively enable and reinforce continued use of BNPL solutions.

According to the previous empirical studies around the world, demographic characteristics such as age group, education, and income significantly impact the likelihood of adopting innovative payment methods. For example, younger consumers tend to be early adopters of digital finance solutions, yet they may also lack the experience required for effective financial management. Easy access to purchase products also creates problems related to consumer security along with insufficient financial knowledge. A lack of proper regulations in multiple jurisdictions gives BNPL providers immunity from following established lending requirements that traditional financial institutions need to observe (Schomburgk & Hoffmann, 2023). Insufficient regulations allow users to exhibit irresponsible borrowing through payment delay uncertainties while developing debt cycles (Raj et al., 2024). From that point of view, the research focuses on examining BNPL users' economic literacy and behavioral patterns, addressing gaps in understanding their financial risk awareness.

2.3 Consumer Behavior Theory:

The BNPL system affects how consumers behave primarily by attracting younger customers who are more likely to engage in impulsive buying. The Theory of Planned Behavior (TPB) (Ajzen, 1991) about consumer decisions depend on three main elements which are attitude and subjective norms and perceived behavioral control. Despite high financial literacy rates in Finland, some GHR residents, especially younger individuals, may overestimate their ability to manage payments, leading to financial and technological problems. In Finland, particularly GHR residents, they usually value financial independence and responsible spending, but BNPL's convenience may overshadow risks about debt accumulation.

Young consumers in the GHR see BNPL as a safe payment choice since their country maintains a solid and well-established system that offers social support. Consumers often exhibit present bias, meaning they prioritize immediate rewards over long-term consequences (Thaler & Sunstein, 2009). This is particularly relevant in GHR, where the ease of accessing BNPL through digital wallets and mobile banking has led to impulsive spending. Moreover, Finnish e-commerce platforms frequently integrate BNPL, making it the default payment option for many consumers. For instance, Klarna is an official payment method at the checkout page of the most famous technology website in Finland (Gigantti). People can easily purchase their items by choosing Klarna as their preferable payment method. Mental accounting suggests that individuals categorize money differently based on its purpose (Thaler, 1999). In GHR, many BNPL users do not classify BNPL spending as debt, treating it instead as a deferred payment method. Unlike credit cards, which are associated with interest payments, BNPL is perceived as a “cash flow management tool,” leading to frequent use. Helsinki residents with strong banking habits may track their credit card expenses but overlook their BNPL obligations, leading to unintended debt accumulation. The way BNPL payments are structured and promoted in Finland, especially in GHR, may contribute to financial mismanagement, particularly among younger users.

2.4 Economic Literacy Models:

Economic literacy plays a crucial role in determining how individuals assess financial risks, manage credit, and make informed borrowing decisions. Several theories exist to analyze how economic understanding affects users' adoption of BNPL services and their financial conduct

patterns. Financial literacy describes someone's ability to comprehend and apply basic financial concepts particularly related to numeracy (interest rates, inflation, risk diversification), debt management, and long-term financial planning (Klapper et al., 2013). Finland ranks among the top countries in financial literacy, but young adults in GHR (ages 18-30) tend to have lower financial literacy levels compared to older demographics (Klapper et al., 2013). Studies indicates that individuals with low financial literacy skills struggle to manage their debts (Klapper et al., 2013), which creates an issue for Helsinki-based young BNPL users because they might not understand the long-term consequences of their accumulating installment payments. BNPL providers in Finland (Klarna, OP Lasku, Walley) frequently highlight features such as "zero interest" and "convenience" while downplaying risks related to late fees and credit reporting. This leads to the misunderstandings among financially inexperienced consumers. Many GHR consumers using BNPL may not fully understand credit reporting regulations, assuming that BNPL payments do not impact their financial records (Bank of Finland, 2021). According to that matters, many BNPL users in Finland fail to recognize that missing payments could affect their future credit scores, impacting mortgage and loan eligibility (Kamimura et al., 2023).

2.5 Potential pitfalls from the usage of BNPL services:

Despite their convenience and ease of use, BNPL systems have the potential to cause significant credit-related issues if users lack sufficient financial knowledge and experience when utilizing these services. The major drawback of BNPL services involves the likelihood that users will build overwhelming debt. The users view BNPL as a simple payment solution instead of credit so they do not understand the consequences of late payments (Cordoba et al., 2024). Lacks of understanding about BNPL leads consumers to build debt without knowing how it will affect their future financial stability. Another significant concern regarding the pitfalls of BNPL services is that younger consumers, who may still be developing financial management skills, tend to reinforce impulsive buying behaviors (Roslee, 2024). BNPL providers apply promotional tactics to emphasize their easy payment systems and instant deferral benefits, encourage automatic spending (Powell et al., 2023). The combination of BNPL promotional efforts produces noticeable behavioral changes among consumers who then increase their spending on unnecessary purchases (Roslee, 2024). The ability of consumers to shop impulsively through BNPL can result in financial problems after they fail to meet their repayment schedule because of accumulating late fees and additional charges (Bagniewski et

al., 2024). The use of BNPL services may also have adverse psychological effects on consumers' mental well-being and their sense of financial insecurity (Widayati et al., 2024). Consumers who heavily rely on BNPL services experience a decline in financial well-being and accelerated stress in management (Powell et al., 2023). Customers need to exercise responsible purchasing habits while also acknowledging that inadequate financial decision-making can result in negative emotional consequences. (Schomburgk & Hoffmann, 2023).

2.6 Financial management practices:

Financial management involves budgeting, as well as practices incorporating saving and debt management strategies, allowing individuals to effectively manage their resources. Financial success depends on efficient financial management because people can improve resource distribution and financial waste reduction and build appropriate financial instruments (Ali & Isak, 2019). Practices in financial management help people obtain improved financial results that produce higher savings balances and reduced debts (Anthony et al., 2011). However, the adoption of effective financial management practices can be influenced by various factors, including economic literacy, personal attitudes towards finance, and external economic conditions. The expanding presence of Buy Now Pay Later (BNPL) services has introduced the financial industry to complex issues in management practices. The convenience features of BNPL services come with risks that include both rushed buy decisions and rising debt levels (Kader & Khan, 2020). People need full knowledge about their financial situation including earnings and spending and repayment responsibilities to prevent debt accumulation. Effective financial management, involving budget creation, tracking expenses, and setting goals, enables customers to manage BNPL (Alarcon et al., 2024). Nevertheless, individuals with higher financial literacy are more likely to make better spending and repayment decisions with their available resources thus decreasing their chances to exceed their financial limits (Mwangi et al., 2014). In contrast, the lack of financial literacy prevents people from understanding BNPL agreements which leads to poor financial practice and increase vulnerability to debt (Talonpoika et al., 2016).

Young individuals and students in the Greater Helsinki Region use BNPL services for financial management purposes because they have limited income as well as high student debt and depend heavily on digital payment methods. As a result, young consumers are not able to manage their cash flow and make purchases without experiencing immediate financial

pressure. Financial education aimed at teaching young consumers represents a key solution to the current problems.

2.7 Financial Education and Policy Intervention:

Financial education describes the individual's knowledge beyond complicated schemes regarding to financial products, services such as BNPL services. It helps them to deal with responsible spending and avoid excessive debt (Farrugia et al., 2022). Policy intervention on the other hand refers to the actions undertaken by government or regulatory agencies that cause shifts in the market dynamics thereby protecting the consumers from harm. Policy interventions can include regulations that govern the terms and conditions of BNPL services in order to deliver clear and fair financial practices, especially in lending activities. The evaluation of BNPL risks demands essential protective measures which offer particular protection for young consumers and students (Farrugia et al., 2022). Nonetheless, credit terms and repayment obligations significantly influence consumers' ability to handle payments effectively (Osman et al., 2024). The widespread adoption of BNPL proves that younger people require improved financial education since they use these services frequently.

In the Greater Helsinki Region (GHR), it is essential to publish and apply different strategies in order to improve the level of financial risk awareness in young consumers group. Some skills such as budgeting, understanding of credit or managing debt efficiently are critical and should be focused. Developing better financial skills will improve their ability to handle BNPL services while making decisions based on their financial targets (Widayati et al., 2024). In addition, financial education should be applied in school curricula and community programs. This approach can improve a culture of financial responsibility among students and young adults within the useful skills to manage their financial situation effectively (Schomburgk & Hoffmann, 2023).

Since the growth of BNPL sector is rapidly increasing, a number of solid, practical regulatory frameworks for this payment method is needed. Current self-regulatory practices in the BNPL industry have been criticized for lacking sufficient oversight, resulting in possible consumer vulnerability and rising levels of debt (Powell et al., 2023). To address these concerns, effective policy interventions should be considered. Transparency requirements would obligate BNPL providers to clearly disclose service terms, including interest rates, fees, and repayment

schedules, enabling consumers to make informed decisions and understand the potential consequences of borrowing (Gerrans et al., 2022). Additionally, credit limit assessments should be mandated to ensure that providers evaluate consumers' overall financial obligations, helping to prevent excessive debt accumulation across multiple BNPL accounts (Cordoba et al., 2024). Safeguards should be established to protect consumers from unethical lending practices, such as imposing caps on fees and interest rates associated with BNPL services. These consumer protection measures aim to protect consumers from unfair terms that could lead to financial problems. (Mukhtar et al., 2023). Nonetheless, BNPL providers should be encouraged to integrate financial education within their services, assisting consumers in understanding the risks and responsibilities tied to BNPL usage. Educational initiatives can guide consumers in effective budgeting, debt management, and the implications of deferred payments. (Soni, 2023).

In the GHR, student and young adults account for more than half of the population, highlighting a significant need for financial education and policy intervention (Bagniewski et al., 2024). By prioritizing consumer protection and financial education, the GHR already promoted a more responsible and informed approach to BNPL usage among its residents, contributing to improved financial well-being and stability (Aitken, 2017).

2.8 Local-based differences: The case of Greater Helsinki Region (GHR):

The behavior of the consumer towards BNPL services is highly dependent on the perception of society on subjects like credit and debt. In some cultures, responsible savings and financial management means consumers approach BNPL services with more caution, especially Nordic regions where the financial literacy levels are high. This careful approach contrasts with regions where the use of credit is more culturally accepted and widespread. (Raj et al., 2024). Economic conditions also significantly affect the adoption and usage of BNPL services. There are number of reasons affecting the usage of BNPL services such as economic downturns or high rate of unemployment. Since the annual income is not secured, people tend to use short-term purchases to buy goods or services, increasing the chances of over-indebtedness (Hegawan, 2023). Regulations regarding BNPL services are different among geographical areas because they determine both supply and utilization terms for these services. In some

countries, public disclosure of BNPL regulations and requirement is mandatory. This helps consumers avoid missing out a full understanding of the risks of using the service (England, Australia). Publishing critical laws and firms also protects consumers from uncontrolled spending and creates a healthy consumer lending environment (Powell et al., 2023). The existence of consumer protection legislation and an emphasis on financial literacy programs in the GHR may contribute to a more informed and cautious approach to BNPL usage among residents. This phenomenon is particularly remarkable among younger consumers, who might otherwise be more vulnerable to the risks associated with these financial services.

While existing studies explore BNPL's global rise, few focus on Nordic urban contexts. Within the unique combination of high digital literacy and significant fintech innovation, the GHR becomes a suitable place for researchers to investigate and bring out fundamental insights about the interaction of economic knowledge and utilization of BNPL services.

3 Methodology

3.1 Selection of Method:

This study uses a quantitative research strategy to examine the adoption of Buy Now, Pay Later (BNPL) services across different regions of Helsinki and to identify potential risks associated with this payment method. By using a quantitative research approach, researcher can independently gain insights through detailed investigation about BNPL's consumer behavior and its security risks. A structured survey system has been chosen as the primary data collection approach to represent the diverse population spread across the Helsinki region comprehensively. The designed survey will examine the factors affecting BNPL usage among residents in Helsinki:

1. What are the demographic characteristics of users of BNPL services in GHR and what level of economic literacy do they have?
2. How does the use of BNPL services affect the financial management practices of GHR residents?
3. What measures (financial education, policy interventions) do residents take to avoid potential pitfalls associated with BNPL services?

While the quantitative method enables broad data collection across the Helsinki population, it has limitations in capturing the deeper psychological and social factors influencing BNPL use. Structured surveys may restrict participants' ability to express personal motivations or contextual experiences. As a result, this approach may overlook individual perspectives that other methods might be suitable to explore.

Alternative methodologies considered included qualitative approaches (Bryman, 2012). These methods can explore complex psychological and social factors influencing consumer financial decisions (Lewis, 2015). Through methods such as in-depth interviews, or focus groups, qualitative methodologies have the potential to reveal detailed insights into consumers' motivations, experiences, and decision-making processes concerning BNPL services. Additionally, qualitative research allows for exploratory investigation in emerging fields which theoretical frameworks may still be developing, as in the case with newer fintech services like BNPL (Bryman, 2012). However, qualitative methods also present limitations for addressing the specific research questions of the study. For example, the small sizes of qualitative samples often prevent identifying patterns common across the varied Helsinki population. Fieldwork approaches may introduce personal assumptions of the researcher when studying subjects like financial technology adoption because different viewpoints toward debt and consumption practice could bias analysis results.

Based on the evaluation of different methods, a quantitative approach emerges as more appropriate for addressing the research objectives. The quantitative method enables precise measurements of important variables whereas it enables researchers to compare population segments with standard metrics. The structured survey design together with Likert-scale and multiple-choice questions provides reliable data gathering and assessment (Bryman, 2012). They facilitate the identification of correlations between demographic factors, financial behaviors, and BNPL usage – relationships that are central to understanding adoption patterns and potential vulnerabilities (Bryman, 2012). Furthermore, the larger sample sizes provide greater statistical power within generalizability (Mohajan, 2020). Moreover, quantitative findings offer the empirical foundation necessary for evidence-based policy recommendations and educational efforts regarding consumer protection in the online payments such as BNPL services.

3.2 Data Collection:

The study targets residents of the Greater Helsinki Region, including Helsinki, Espoo, Vantaa and Kauniainen. This metropolitan area is specially selected due to its significance as Finland's largest urban concentration, representing approximately 31% of the country's population in region (Statistics Finland, 2023). Individuals aged 18 and older who have made at least one online purchase in the past year qualify as the ideal selection. The researchers invite an estimated 120 individuals to participate in the survey through various channels, including social media, personal referrals, and the university open portal. The sample demographics align closely with the population of Helsinki in terms of age contribution (18-45), gender, and income level. After careful considerations, the study evaluated three key demographic variables influencing the usage of BNPL services in GHR (age groups, income levels, financial literacy). Since BNPL services are more appealed to younger generations, particularly Gen-Z individuals, the main focus for the data collection would be university students, young professionals and financially active consumers who have made at least one online purchase in the past one year. However, it is also necessary to collect data, general insights from participants who are economically stable and secure because different age groups approach financial management in their own distinct ways, contributed to the second research question matters of the study.

The published questionnaire includes demographic questions (age, income, education level, financial awareness, etc), shopping habits (motivation measurement validated through the 1-5 preferences scale). Participants voluntarily provide responses to encourage honest feedback and reduce potential response biases (Bryman, 2012). The timing captured both regular and holiday shopping periods, which is important for understanding seasonal variations and customer shopping habits in BNPL usage patterns (Newing et al., 2013). The author uses online tools like Google Forms to publish the survey, which facilitates structured question design. Using this channel allows respondents to access the survey effortlessly, without facing any technical challenges (Hui et al., 2023). However, as Google is an open website without strong protection for users, it is essential to secure data management (identification, information of respondents). In order to enhance participant confidentiality in a quantitative study, only allow responsible researchers to view responses; adjust sharing permissions. Regularly export responses to a secure location (such as an encrypted university server) and delete them from Google Forms after collection is another measure to protect individuals' information. To

guarantee the survey effectively targets the intended research population, it will be distributed via social media channels (Facebook groups) as well as university portals, where discussions on BNPL services are highly considered. Furthermore, direct distribution methods, such as word-of-mouth and QR codes at open events, aim to capture the interest of individuals engaged in BNPL topics. The questionnaire is available in English only, which may create barriers for the accessibility of the survey to the GHR diverse population. As Helsinki is home to speakers of Finnish, Swedish, and various immigrant languages, restricting the survey to English could restrict non-fluent individuals from answering the questions. This limitation may result in biased findings or the exclusion of certain demographic groups from participation (Bryman, 2012).

3.3 Data Used in the Study:

The survey framework combined validated scales with newly developed items specific to the Helsinki context. Key measurement constructs include BNPL usage and awareness, financial literacy (Klapper et al., 2013) and income level assessment (Toyozawa et al., 2023). The questionnaire used in the survey measured three dimensions of financial literacy including Financial Knowledge, Financial Behavior and Financial Attitudes (Kalmi & Ruuskanen, 2018). To acknowledge different dimensions, multiple evaluation approach would be applied. A multiple-choice format (Bryman, 2012) helps the researcher evaluate the understanding of basic financial concepts, such as compound interest, inflation and risk diversification (Hudson, 2000) while 5-point Likert scale (Likert, 1932) would measure financial behavior and financial attitudes (Kalmi & Ruuskanen, 2018). The thesis measures perceptions of BNPL benefits and risks (Grabner-Kräuter & Faullant, 2008) for the Finnish market along with additional demographic data collected includes education level, employment status, and cultural background.

3.4 Statistical Analyses:

Once the responses are collected, they will be stored securely in cloud-based system such as Google Drive or a university-affiliated database (OneDrive) to preserve data confidentiality. Following that, the raw data will be exported in formats suitable for statistical analysis software, such as CSV files for processing in SPSS or Microsoft Excel. This structured approach strengthens consistency and reliability in data handling and analysis. Descriptive

statistics (Mean, Standard deviation, Frequency distributions) will then be used to summarize key findings related to BNPL usage patterns, user demographics, and financial behaviors. Correlation analysis will examine relationships between financial literacy levels and BNPL adoption rates, helping to identify significant trends.

The entire analysis process will be carried out using statistical software such as SPSS or Microsoft Excel, ensuring accuracy and efficiency in handling large datasets. This approach will allow for the extraction of valuable insights, supporting evidence-based recommendations for financial education programs and regulatory policies aimed at promoting responsible BNPL usage. The targeted number of participants for the surveys is 120 respondents, however, there might be some adjustment during the data collection process since the observed area restricted only in GHR. The study will present findings with multiple visualization methods by examining the associations between chosen categories. Bar charts can display how different BNPL adoption rates vary between age groups and income levels while tables can provide data about repeated BNPL usage rates. By focusing on numerical insights, this study will provide a well-rounded analysis of BNPL's role in the Helsinki region. The findings will contribute to recommendations for financial education programs and regulatory policies aimed at promoting responsible BNPL usage.

3.5 Validity and Reliability:

The study implements several strategies to ensure the validity of measurements in BNPL adoption in the Greater Helsinki Region. To verify content validity the study utilizes a methodology of instrument development and established theories from financial technology adoption research including Technology Acceptance Model (TAM) (Davis, 1989) and the Diffusion of Innovation (Rogers, 1962). Multiple-choice along with Likert-scale items feature in the survey instrument to effectively measure the various aspects of BNPL adoption. For Likert-scale items measuring attitudes and perceptions toward BNPL services, a standardized 5-point scale is applied (1 = Strongly Disagree to 5 = Strongly Agree) (DeVellis, 2016). Multiple-choice questions for measuring concrete behaviors, such as frequency of BNPL usage, provides well-defined categorical options to reduce confusion and ensure clarity in interpretation. To enhance measurement validity, the study integrates established scales whenever possible. It adapts the financial literacy scale from the validated OECD/INFE instrument (OECD, 2020), which has demonstrated strong validity in Finnish contexts (Kalmi

& Ruuskanen, 2018). The pilot testing phase also serves as a critical component for establishing survey validity in this BNPL adoption study. Piloting is not merely about ensuring questions function well, but about validating the entire research instrument (Bryman, 2012).

On the other hand, the selection of the quantitative method faces four identical critiques such as failure to capture the complexity of social reality, artificiality of research settings, neglect of the researcher's influence and limited understanding of social processes (Bryman, 2012). In this study, potential biases include self-selection bias, as individuals with stronger opinions about BNPL services may have been more motivated to participate (Bryman, 2012). Bryman identifies this as a form of volunteer bias that "is likely to generate findings that are not applicable to the population". This may have resulted in overrepresentation of either enthusiastic BNPL users or those who experienced negative outcomes, potentially skewing results in either direction. Moreover, the Likert-scale format used for several key measures may have introduced acquiescence bias, where respondents tend to agree with statements regardless of content (Bryman, 2012).

Studies of consumer attitudes toward new financial products particularly highlight this effect, where respondents may lack strong pre-existing opinions and default to agreement (Podsakoff et al., 2012)). Also, the specified location for research study also prevents researchers from generalizing data collection to other Finnish regions. It leads to the context dependent aspect of the study, since findings deriving from research in one context or location may not be transferable to others. Nonetheless, researcher expectations about relationships between financial literacy and responsible BNPL usage may have influenced analytical decisions and interpretations (Bryman, 2012). This risk is particularly relevant for studies of financial inclusion technologies like BNPL, where strong normative positions exist in both academic and administrative policy perspectives (Paton & Dodge, 1995). Despite adequate overall sample size, statistical power decreases substantially when examining specific demographic subgroups or interaction effects (Cohen, 1992). This increases the risk of both Type I errors (false positives) and Type II errors (false negatives) when analyzing patterns within specific income or financial literacy segments (Kalmi & Ruuskanen, 2018).

The limitations appeared in the chosen methodology require a cautious interpretation of findings, particularly when drawing policy recommendations or making causal claims about

relationships between financial literacy, demographic factors, and BNPL adoption patterns in the Greater Helsinki Region.

3.6 Research-ethical Considerations:

The author conducts this study in accordance with the ethical guidelines of Arcada University of Applied Sciences and the Finnish Advisory Board on Research Integrity. All participants receive clear information about the study's purpose, data usage and their right to withdraw from the survey at any time. Personal identifying information is separated from response data and stored securely. The raw data is available to the primary researchers only. Participation is voluntary, and the research does not offer any bonuses or incentives in regard to participation. Descriptions of any financial trouble-related questions are worded carefully to minimize distress and avoid uncomfortable answers from individuals (Bryman, 2012).

4 Results

This section presents the findings from the designed quantitative survey to explore the adoption of "Buy Now Pay Later" (BNPL) services in the GHR and address its potential risks. The survey targeted university students, young professionals, and financially active consumers, as these groups represent the primary user base of BNPL services.

A total of 107 responses were collected, falling short of the initial target of 120 participants. The lower-than-expected response rate can be attributed to several factors, including the limited time frame for data collection, the reliance on voluntary participation through digital channels, and the general survey often observed among the target population. Despite this, the sample size is still sufficient to identify key trends and draw preliminary conclusions about BNPL usage patterns and perceptions within the target demographic.

The data collected through structured questions provide insights into the level of awareness, usage frequency, perceived benefits, and concerns surrounding BNPL services. Additionally, the responses highlight behavioral tendencies and potential financial risks associated with this payment method, particularly among younger consumers.

During the data collection process, the importance of financial education and policy interventions was highlighted. This underlines the need for improved financial literacy initiatives targeted at young consumers. At the same time, policy interventions can play a vital role in ensuring responsible usage and safeguarding consumers. These combined efforts are essential to building a safer BNPL ecosystem in the Helsinki region and beyond.

4.1 Survey Analysis:

While the survey included a range of questions to gather comprehensive insights, this analysis concentrates on the most relevant findings aligned with the research objectives. Therefore, certain questions with limited or non-critical responses are eliminated from the in-depth analysis.

4.1.1 Demographic information and economic literacy:

The first part of the survey gathers basic demographic information and general economic literacy levels among residents in the GHR.

- Question 1: Which age group do you belong to?

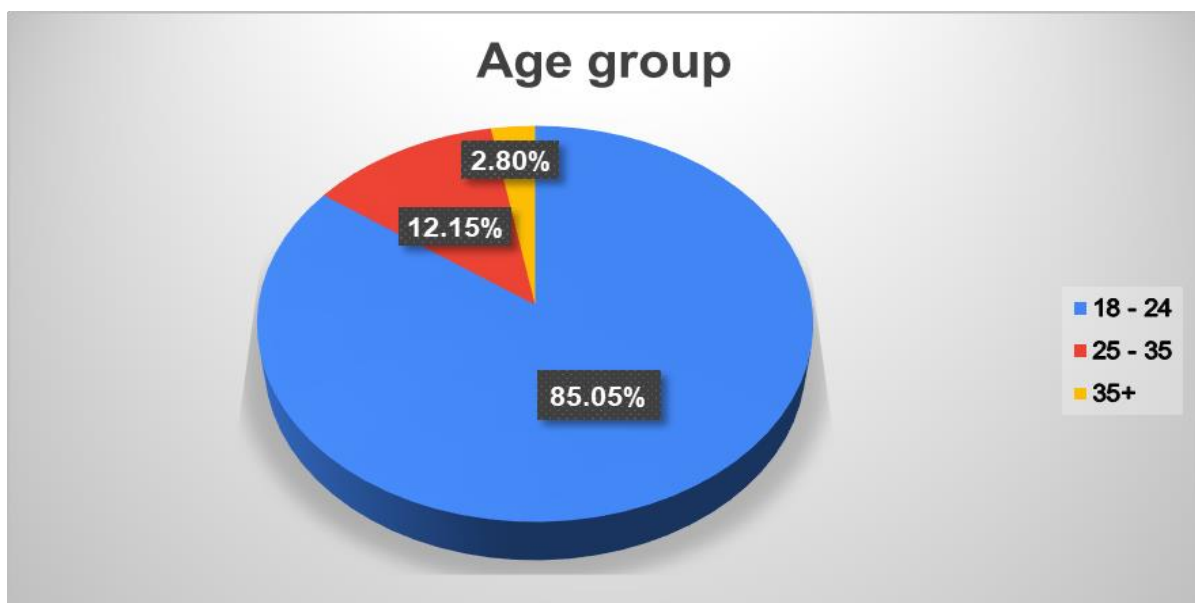


Figure 1.: Age group sample

Source: Made by the author

According to the data, the majority of respondents is coming from the 18-24 age group, accounting for 85% (91 out of 107 participants). Since the Buy Now, Pay Later (BNPL) model

is especially common among younger demographics due to its digital accessibility and marketing through online platforms, this age representation aligns well with the study's objectives. Also, the initial distribution channel of the survey is social media, open university portal, and QR-codes at open events, it is easier for younger people to participate. Other age groups such as 25-35 and 35+ represents approximately 15% (16 out of 107 respondents) also bring different perspectives for the research since most of them has finished school and started work life for a period.

- Question 2: What is your highest level of education completed?

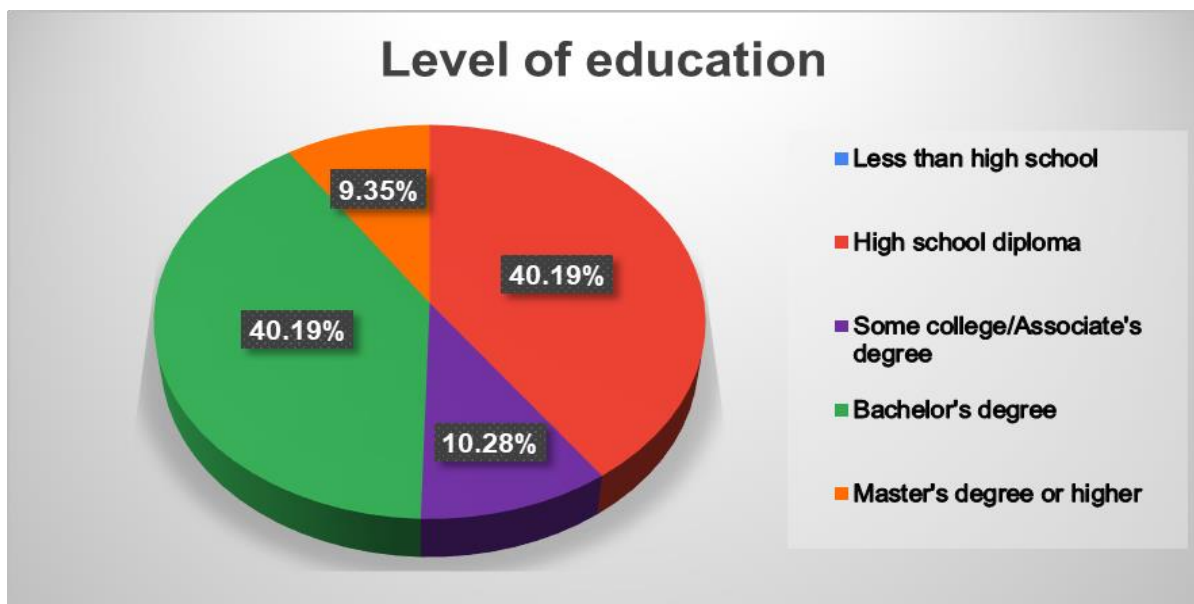


Figure 2.: Level of education sample

The educational profile of the respondents reveals a balanced distribution between individuals holding a high school diploma and those with a bachelor's degree, each representing 40.19% of the total sample. This suggests that the majority of participants either have completed secondary education or are already engaged in or have completed higher education studies. Moreover, none of the respondents reported having less than a high school education. A smaller proportion of respondents, 10.28%, reported having attended some college or holding an associate's degree, while 9.35% possess a master's degree or higher.

This educational breakdown is significant for understanding consumer awareness and decision-making in the context of BNPL services. Since a significant portion of the sample has completed tertiary education, it can be assumed that the respondents likely have a basic

understanding of financial products and credit systems. This level of education could influence how they perceive the risks and benefits associated with BNPL services.

- Question 5: If you purchase a €500 item using a BNPL service with 0% interest for three months, but miss a payment, what could happen?
- Question 6: When reviewing a financial contract (BNPL terms, loan agreements), what do you focus on the most?

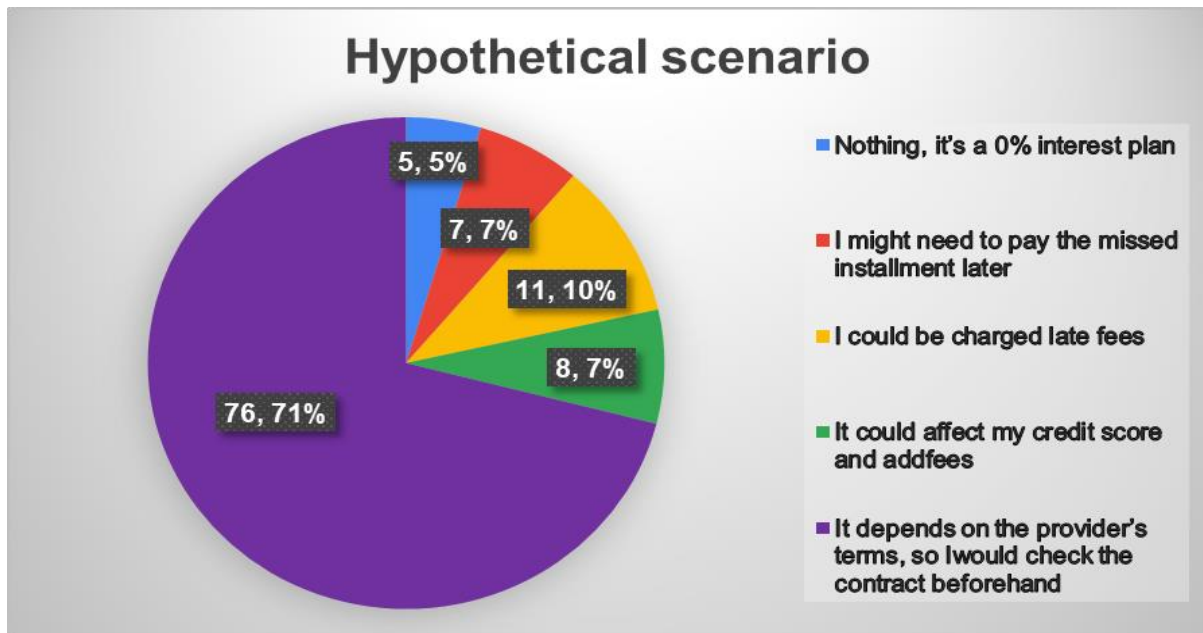


Figure 3.: Hypothetical scenario sample

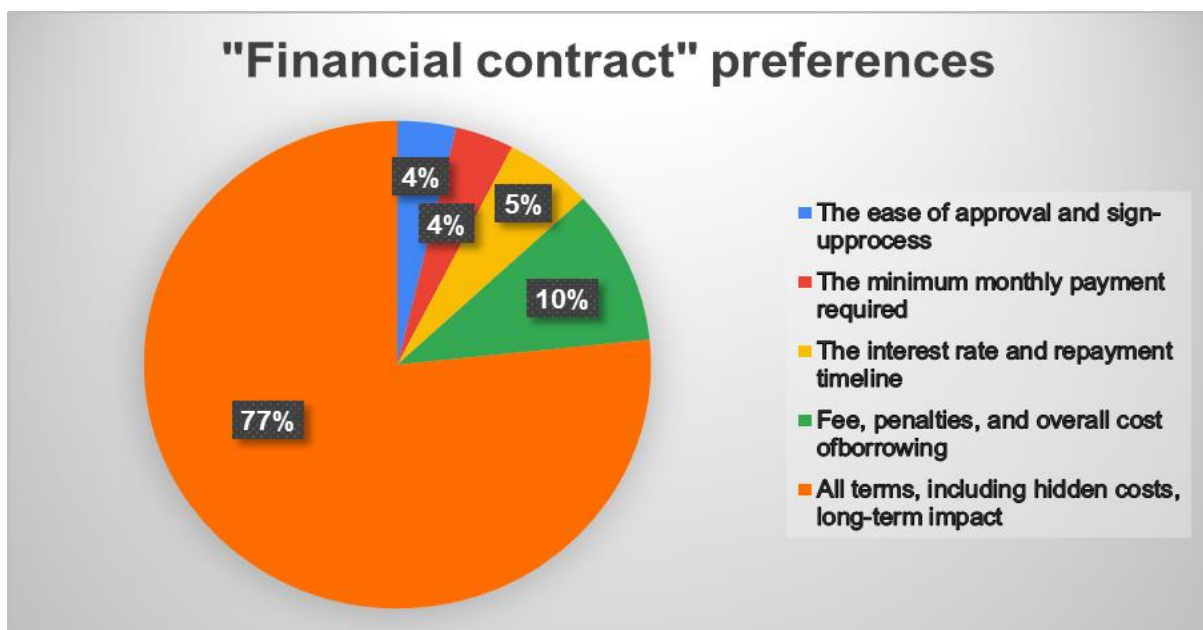


Figure 4.: "Financial contract" preferences sample

The majority of respondents in Figure 3, about Hypothetical scenario (71.03%) demonstrated a cautious and informed approach, indicating that they would refer to the specific provider's terms and conditions to understand the consequences of a missed payment. This suggests a relatively high level of financial awareness regarding contractual obligations and the differences in BNPL agreements. However, a smaller proportion of participants showed gaps in understanding: 4.67% believed that nothing would happen due to the 0% interest, 6.54% assumed only the missed installment would be paid later, 10.28% correctly identified late fees as a possible consequence, and 7.48% recognized the potential for both credit score impact and added fees. These responses reveal that while most participants approach BNPL agreements with some degree of financial caution, a minority may underestimate the potential risks of delayed payments.

On the other hand, according to the results from the Figure 4, about "Financial Contract" preferences, 76.64% of respondents reported focusing on all terms, including hidden costs and long-term impact, indicating a strong tendency toward comprehensive contract review. Meanwhile, 10.28% prioritized fees, penalties, and overall cost of borrowing, and smaller percentages focused on interest rates and repayment timelines (5.61%), minimum monthly payments (3.74%), or ease of approval (3.74%).

These findings suggest that a substantial majority of respondents has a relatively high level of economic literacy, especially when it comes to understanding and evaluating financial agreements. Nonetheless, the existence of differences in levels of awareness and differing priorities underlines the continued need for targeted financial education.

4.1.2 Buy Now Pay Later (BNPL) Usage and Financial Management:

The second part of the survey focuses on Buy Now Pay Later (BNPL) usage patterns and respondents' financial management behaviors, aiming to assess their familiarity with BNPL services and their ability to manage related financial responsibilities.

- Question 4: What is your approximate personal income level (after taxes) per year?
- Question 9: How much of your monthly income would you allocate to BNPL repayments?

QUESTION 4			QUESTION 9		
CRITERIA	FREQUENCY	MIDPOINT (€)	CRITERIA	FREQUENCY	MIDPOINT (€)
Below €10,000	56	€ 8,000	€50 - €250	47	€ 150
€10,000 - €20,000	42	€ 15,000	€300 - €500	38	€ 400
€20,000 - €50,000	4	€ 35,000	€500 - €1,000	14	€ 750
Above €50,000	5	€ 60,000	€1,000 - €3,000	6	€ 2,000
TOTAL RESPONSES	107		€3,000 - €5,000	0	€ 4,000
			More than €5,000	2	€ 6,000
			TOTAL RESPONSES	107	

Note: "Midpoint" is assigned based on typical value to each income/spending range for calculation.

Weighted Average Income:

Average Income = $(56 * €8,000 + 42 * €15,000 + 4 * €35,000 + 5 * €60,000) / 107$ € 14,186.92

Weighted Average BNPL Spending:

Average Spending = $(47 * €150 + 38 * €400 + 14 * €750 + 6 * €2,000 + 2 * €6,000) / 107$ € 530.37

Spending as % of Income

Spending as % of Income = $€530.37 / €14,186.92 * 100$ 3.74

Figure 5.: Annual income – BNPL monthly spending sample

Source: Made by the author

From the Figure 5., it is clear that most of the respondents have a moderate annual income levels, with the concentration in the “Below €10,000” and ”€10,000–€25,000” groups, accounting for 56 and 42 respondents respectively (91,59% of the survey data combined). On the other hand, the results from Question 9 indicate that most people preferred to commit only a small portion of their income to such payments, mostly €50–€250 and €300–€500 per month for the BNPL purchases. By applying Midpoint Strategies, the average spending percentage based on annual income is calculated. Approximately 3,74% of monthly income would be allocated for the BNPL services, suggesting a generally cautious approach to credit-based consumption, likely influenced by awareness of financial obligations and the need to maintain budgeting discipline within modest income limits in the GHR.

- Question 11: Which of the following do you consider the biggest risk associated with BNPL services? (Select maximum to three that you think would be applied)

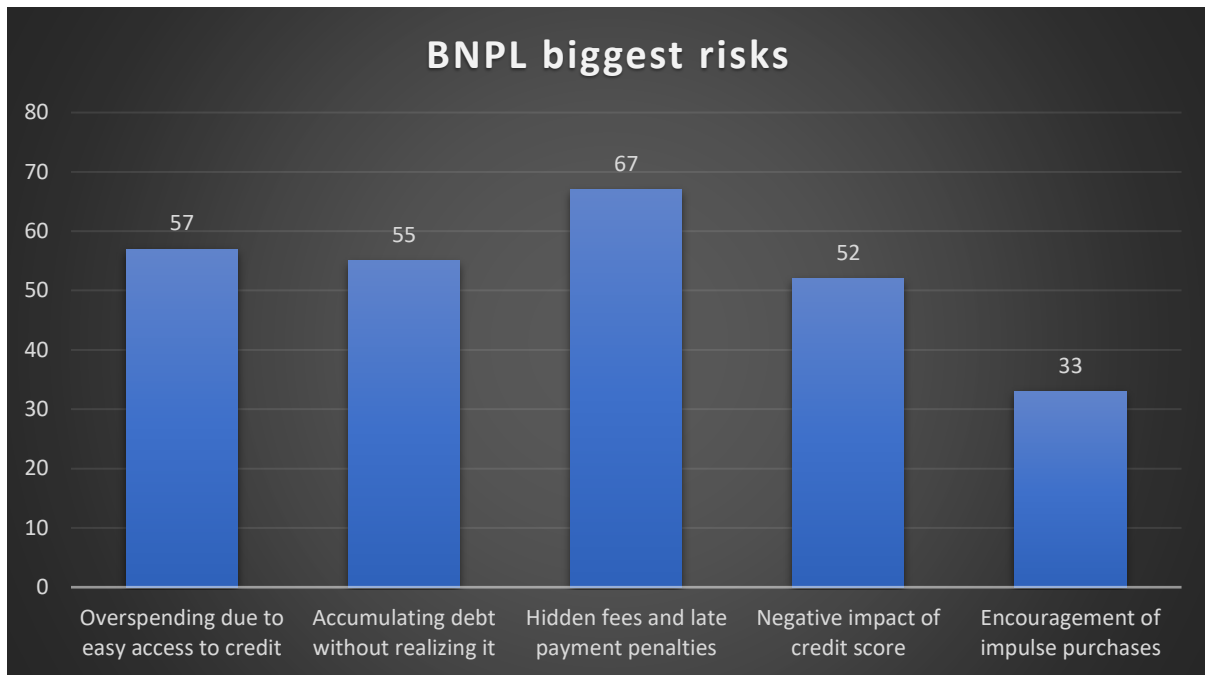


Figure 6.: BNPL biggest risks sample

To evaluate respondents’ awareness of the potential pitfalls associated with Buy Now Pay Later (BNPL) services, participants were asked to identify key risks they associate with this form of payment. The results reflect a strong level of concern regarding financial consequences, particularly those that may not be immediately visible to consumers.

The most commonly identified risk was “Hidden fees and late payment penalties”, selected by 67 respondents. This suggests that most of participants are aware of the less transparent costs associated with BNPL, even in cases where services are advertised as “interest-free.” Similarly, 57 people (53.27%) acknowledged overspending due to easy access to credit, and 55 people (51.40%) were concerned about accumulating debt without realizing it, highlighting a shared understanding of the psychological and behavioral risks.

Additional concerns included the negative impact on credit scores (48.60%) and the encouragement of impulse purchases (30.84%), further supporting the idea that respondents recognize both the financial and behavioral consequences of frequent BNPL use. These results reinforce earlier findings in the survey suggesting relatively high economic literacy among the GHR respondents. The awareness of hidden risks and debt accumulation demonstrates a critical attitude, especially among younger consumers who may be the most frequent users of BNPL services.

4.1.3 Mitigation Measures:

- Question 14: Which of the following financial skills do you think are most important to avoid BNPL-related pitfalls? (Select up to three)
- Question 15: What policy measures do you believe would make BNPL services safer for consumers? (Rank from 1-5, with 1 being the most important)

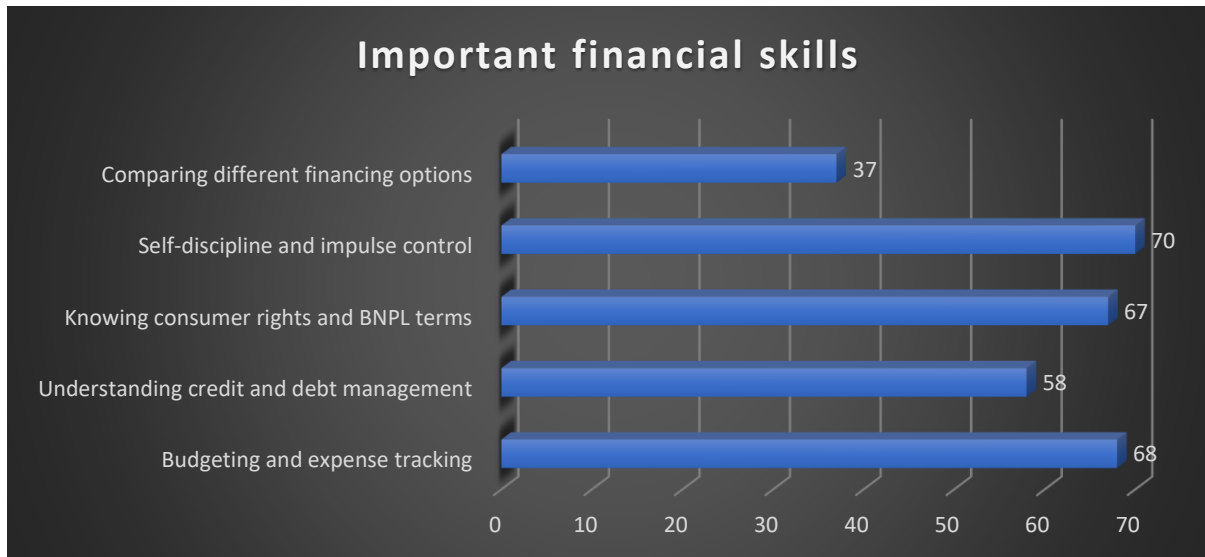


Figure 7.: Important financial skills sample

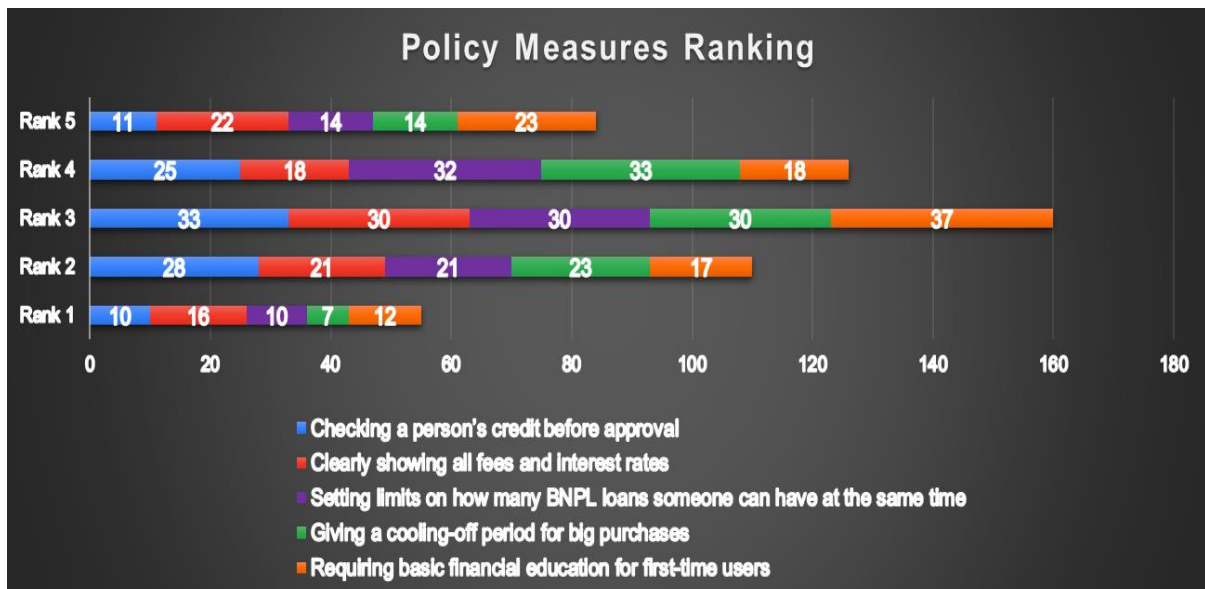


Figure 8.: Policy measures ranking sample

According to the results from Figure 7., the highest-rated skill was self-discipline and impulse control, selected by 70 respondents (65.42%). This suggests that personal behavior plays a central role in responsible BNPL use. Close behind were budgeting and expense tracking (63.55%) and knowing consumer rights and BNPL terms (62.62%), indicating that practical financial planning and legal understanding are equally important in managing payments effectively. Meanwhile, understanding credit and debt management (54.21%) also received considerable support, addressing the need for foundational financial literacy. Only 37 participants selected comparing different financing options, implying that while this skill is relevant, it may be secondary to the immediate ability to control spending and understand obligations.

Following that, Question 15 asked respondents to rank policy measures that would improve the safety of BNPL services for consumers. The data reveals diverse views, with preferences spread across all five options. However, “Requiring basic financial education for first-time users” received the highest number of Rank 3 selections (37), suggesting that respondents view education as a foundational, if not top-priority, regulatory measure. “Clearly showing all fees and interest rates” received the most Rank 1 selections (16), underlining a strong demand for transparency in how BNPL terms are presented. Meanwhile, “Setting limits on the number of BNPL loans” and “Giving a cooling-off period” were more commonly ranked in the middle (Ranks 3–4), suggesting moderate importance. The wide range of rankings suggests that while no single measure stands out as dominant, a combination of transparency, educational requirements, and tighter regulation would likely be the most effective approach to making BNPL usage safer.

- Question 12: Do you believe that BNPL services provide a safer alternative to credit cards? (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)
- Question 16: To what extent do you agree that financial education should be a compulsory subject in schools and universities? (1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree)

DESCRIPTIVE ANALYSIS			DESCRIPTIVE ANALYSIS		
I. FREQUENCY TABLES			I. FREQUENCY TABLES		
QUESTION 12			QUESTION 16		
CRITERIA	FREQUENCY	PERCENTAGE	CRITERIA	FREQUENCY	PERCENTAGE
1 = Strongly Disagree	3	2.80	1 = Strongly Disagree	0	0.00
2 = Disagree	7	6.54	2 = Disagree	0	0.00
3 = Neutral	39	36.45	3 = Neutral	29	27.10
4 = Agree	47	43.93	4 = Agree	48	44.86
5 = Strongly Agree	11	10.28	5 = Strongly Agree	30	28.04
TOTAL RESPONSES	107		TOTAL RESPONSES	107	
MEAN	21.40		MEAN	21.40	
STANDARD DEVIATION	20.12		STANDARD DEVIATION	20.95	
MEDIAN	11.00		MEDIAN	29.00	
MINIMUM	3.00		MINIMUM	0.00	
MAXIMUM	47.00		MAXIMUM	48.00	
AVERAGE RATING	3.52		AVERAGE RATING	4.01	
II. MARGIN OF ERRORS + CORRELATION			II. MARGIN OF ERRORS + CORRELATION		
	QUESTION 12	QUESTION 16			
SE	0.188	0.196			
CORRELATION	0.847				
INFERENTIAL ANALYSIS			INFERENTIAL ANALYSIS		

Figure 9.: Personal opinions/rankings sample

Source: Made by the author

There are different valuable insights claiming from the Figure9. Question 12 investigated perceptions of whether Buy Now Pay Later (BNPL) services offer a safer alternative to credit cards. The average rating was 3.52, indicating a moderately positive view among respondents. With a median score of 4 (Agree) and a range spanning from 1 (Strongly Disagree) to 5 (Strongly Agree), responses suggest that while there is some skepticism, a significant portion of participants considers BNPL as a comparably safe or safer option. The standard deviation of 1.02 highlights a relatively balanced distribution of opinions, suggesting that opinions differ to some extent but remain relatively balanced.

In contrast, Question 16 focused on whether financial education should be compulsory in schools and universities, a topic closely tied to responsible BNPL usage and mitigation measures. The results reveal strong emphasis, with a mean rating of 4.61 and a median of 5 (Strongly Agree), suggesting overwhelming support for integrating financial education into formal curricula. The standard deviation is lower (0.65) than that of Question 12, indicating a more unified agreement among respondents. The minimum response was 3 (Neutral), which also suggests that none of the participants actively disagreed with the statement.

The comparison between these two questions is revealing a crucial aspect. Although respondents show a measured confidence in BNPL as an alternative to traditional credit, they overwhelmingly support the idea of making financial education mandatory - to promote

informed choices in a changing financial landscape. For a better understanding of responses to Question 12 (BNPL safety compared to credit cards) and Question 16 (compulsory financial education), inferential statistics were applied to assess the precision of estimates and the relationship between the two variables. Question 12 has a SE of 0.188, and Question 16 shows a SE of 0.196, which indicate that the sample means are reliable estimators of the population means. The responses for both questions are relatively consistent and not heavily influenced by sample variability. Moreover, The correlation coefficient between Question 12 and Question 16 is 0.847, suggesting a strong positive relationship. This implies that individuals who agree that BNPL is a safer alternative to credit cards are also more likely to support the need of financial education in schools and universities. The finding supports the idea that perceptions of financial tools like BNPL are closely tied to broader attitudes toward financial literacy.

4.2 Conclusion of the questionnaire:

The questionnaire results highlight a careful consideration and a solid level of awareness in the approach strategies of the GHR residents regarding BNPL services, especially younger and educated users. Most respondents showed strong financial awareness, recognizing risks like hidden fees and overspending, and allocated only a small amount of their income to BNPL repayments. Skills like budgeting and self-discipline were seen as key to avoiding pitfalls, while transparency and financial education were the most supported policy measures.

Although opinions about BNPL safety versus credit cards were mixed, there was mutual agreement on making financial education compulsory. A strong positive correlation between these opinions suggests that trust in BNPL is closely linked to broader financial literacy. Even though people approach BNPL services with cautious, they still validate this kind of payment as a potential safer option in the financial payment markets. Overall, the findings support the need for both targeted education and regulatory efforts to ensure responsible BNPL use in the region.

5 Discussion

The study explored the adoption of Buy Now, Pay Later (BNPL) services among consumers in the Greater Helsinki Region (GHR), focusing on user demographics, economic literacy,

behavioral patterns, and potential financial risks. The findings largely support existing literature on BNPL while offering new insights within the Nordic urban context, especially in the GHR. As suggested by the Technology Acceptance Model (TAM) (Davis, 1989) and Diffusion of Innovation (DOI) Theory (Rogers, 1962), the data confirms that younger demographics, primarily those aged 18-24, are the primary users of the BNPL services. This behavior familiar with global observations that younger users view BNPL as a more flexible, interest-free alternative to credit cards (Raj et al., 2024). Despite the high level of adoption, the study reveals that many respondents remain cautious in their financial commitment, typically allocating less than 5% of monthly income to BNPL repayments.

The high percentage of participants who thoroughly review financial contracts and understand the risks of late payments suggests that many young GHR residents possess solid economic literacy. This finding supports prior conclusions that Finland maintains globally high financial literacy levels, although some variance still exists among young professionals and university students (Klapper et al., 2013). However, there are still a group of respondents underestimated the consequences of missed payments, indicating a need for targeted financial education even among relatively well-informed customers.

Most respondents only allocate small portion of their annual income to BNPL repayments (averages to just 3.7% of montly income), indicating that there are still hesitation manner when considering the actual use of BNPL services in the GHR. Many GHR respondents appear to view BNPL as a tool for short-term flexibility – for instance, to manage cash flow on a limited student budget – but are careful not to overextend. From that point of view, these patterns support the financial management practices given in the Theory section. The participants’ strong self-reported discipline suggests they are mitigating this risk by keeping BNPL spending low. It’s a positive behavior pattern that likely contributes to why, so far, BNPL use in the GHR hasn’t exploded into a major debt problem. When asked about the biggest risks of BNPL, the majority choose hidden fees and late penalties (about 63% of respondents) as well as overspending and unknowingly accumulating debt (around 51–53%). Many also recognized credit score damage as a concern (nearly 49%) and the danger of impulse purchases (31%). These perceptions connect smoothly with warnings from recent studies. Researchers have addressed that BNPL services can encourage impulse buying and unnecessary purchases (Roslee, 2024).

Comparing our findings with past studies, we see both alignment and areas of concern. On one hand, the high risk awareness of BNPL spending are encouraging which high financial literacy mitigates harmful financial behaviors (Mwangi et al., 2014). On the other hand, the fact that about one-third did not list impulse buying as a top risk suggests that some may underestimate the power of temptation. The survey also explored users' opinions and attitudes, providing context for their behavior. When asked whether BNPL is a safer alternative to credit cards, respondents' opinion on average are slightly positive (mean is 3.52 on a 1–5 scale, with median 4 or “Agree”). This suggests that many perceive BNPL as relatively safe or at least no more dangerous than traditional credit cards. BNPL is often marketed as a fee-free, interest-free way to defer payments, which can seem less costly than credit cards that charge interest on balances. While some participants expressed strong support for this perspective, a few remained skeptical (there were also a number of participants validate the scale in 1 or 2). The balanced but slightly positive approval aligns with the attitude component of TPB from the theoretical section. It also reflects the Perceived Usefulness dimension of TAM: users likely find BNPL “useful” for managing purchases without incurring interest, thereby considering it a beneficial innovation. However, the rate of standard deviation is around 1.02, indicating mixed feelings, shows that respondents are not blindly confident in BNPL's safety. Participants acknowledged the convenience of Buy Now, Pay Later (BNPL) services, but still recognized their potential drawbacks. Although BNPL is perceived as a safer alternative to maxing out a credit card, it is not regarded as entirely risk-free.

Among all topics addressed, financial education generated the strongest agreement. An overwhelming majority agreed that financial education should be a compulsory part of school and university curricula (mean rating 4.61, with a median of Strongly Agree). Not a single respondent disagreed with these ideas. They recognize that responsible BNPL use, and responsible personal finance through education. Despite being relatively literate, participants feel that more can be done to protect themselves from potential pitfalls of this payment method. This matches with (Bagniewski et al., 2024) who identified that young consumers with limited income and high student debt (share same patterns with the sample) are especially vulnerable and thus in need of targeted financial education and policy intervention.

Respondents were also asked on specify policy measures to make BNPL safer. The most common top-ranked measure (most #1 ranks) was “Clearly showing all fees and interest rates”. It highlighted a demand from the customers that stricter transparency from BNPL providers

should be applied. The other significant measure was “requiring basic financial education for first-time BNPL users,” which received the highest number of mid-level ranks (many ranked it as important, though not always the top priority). This suggests that while users see value in an education requirement, they perhaps view it as one component of a broader solution. Other measures like “setting limits on the number of BNPL loans one can have simultaneously” and “giving a cooling-off period for BNPL purchases” received more mixed rankings. This indicates moderate approval that users think these could help, but not entirely transparency and education.

From the Theoretical section and Data Collection from the survey of the research, there are some recommendations to encourage responsible BNPL adoption and usage in the Greater Helsinki Region and beyond. First of all, policymakers and educational authorities should consider personal finance education mandatory in high school and tertiary curricula in a practical way where it is accessible for teenagers and young adults. For instance, creating open forums, events where mainly hosting about BNPL services benefits and drawbacks to illustrate a better understanding for targeted groups (particularly teenagers and young adults). Emphasize practical topics like managing BNPL, credit cards, and loans, using real-life scenarios to prepare young consumers. This will strengthen economic literacy from an early age, addressing knowledge gaps before individuals become BNPL users. Second, Regulatory bodies should require BNPL providers to prominently display all costs and terms. At checkout and in app interfaces, consumers should see any applicable fees, the repayment schedule, and consequences of non-payment in their preferred language. Furthermore, a crucial measure to manage the usage of BNPL services is that BNPL providers should introduce a one-time educational module for new users. For example, upon a user’s first BNPL transaction, the app could require them to read through a brief tutorial or answer a few questions about how BNPL works. This ensures that every user starts with a baseline understanding of the service’s risks and responsibilities. Implementing these recommendations would address the key issues identified in this study, from knowledge gaps to transparency to potential overuse, and promote a culture of responsible BNPL use.

6 Summary

While this study provides valuable insights into BNPL adoption in the Helsinki region, it is not without limitations. First, the sample was mainly focused on younger, highly educated individuals (according to the survey's distribution channels and the nature of BNPL's user base). This means the findings are most applicable to the youth and student demographic. Older age groups or those with lower education/income might have different behaviors and risk perceptions that were not fully captured. Future research should seek a more representative cross-section of BNPL users – including middle-aged and older adults – to see if the patterns hold or if there are significant differences. Second, the study relied on self-reported data from an online survey. Such data can be subject to response biases. For instance, participants might have considered themselves as more financially prudent than they truly are (a social desirability bias), or those who chose to respond carefully without giving their initial expression, feelings beyond given matters. It is also possible that individuals who misuse BNPL (or have fallen into trouble with it) were less likely to take the survey, potentially leading to an overly optimistic view of user responsibility. Third, the research was published and the data was collected at a single point in time and focused on the Greater Helsinki Region, a context with relatively high financial literacy and a strong social safety net. This limits generalizability. BNPL adoption is a global phenomenon, and cultural or economic contexts differ in different regions. For example, attitudes in Helsinki might differ from those in countries where credit use is more normalized such as U.S. or UK where BNPL is rapidly growing.

Another area for future investigation is the effectiveness of interventions. Since the study points to education and policy as solutions, it would be valuable to test these. For instance, researchers could run an experiment where one group of new BNPL users is given a brief educational session or tool, while another group is not, and then track their behaviors (missed payments, spending levels) over several months. Finally, future research might explore the psychological aspect in more depth. Surveys or experiments could measure how consumers perceive BNPL debt versus traditional debt. Understanding this could help tailor financial education to address misconceptions. Additionally, as fintech continues to innovate, “Buy Now, Pay Later” itself may evolve. Keeping up with these changes and studying how they influence consumer behavior will be important.

In conclusion, this study has demonstrated that young consumers in Helsinki are adopting Buy Now, Pay Later (BNPL) services in a cautious and informed manner, with a clear awareness of associated risks. It connects their real-world experiences with established theoretical frameworks such as the Technology Acceptance Model (TAM), Diffusion of Innovations (DOI), Theory of Planned Behavior (TPB), and broader consumer behavior theories, illustrating the practical application of these models. The strong demand for financial education and authorities policy measures emerges as a key finding, indicating that meaningful advancements in consumer protection are possible with active consumer engagement. By addressing the study's limitations through more extensive and diversified future research, we can continue to deepen our understanding and ensure that the evolution of 'future payment' systems supports consumers.

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Appendices

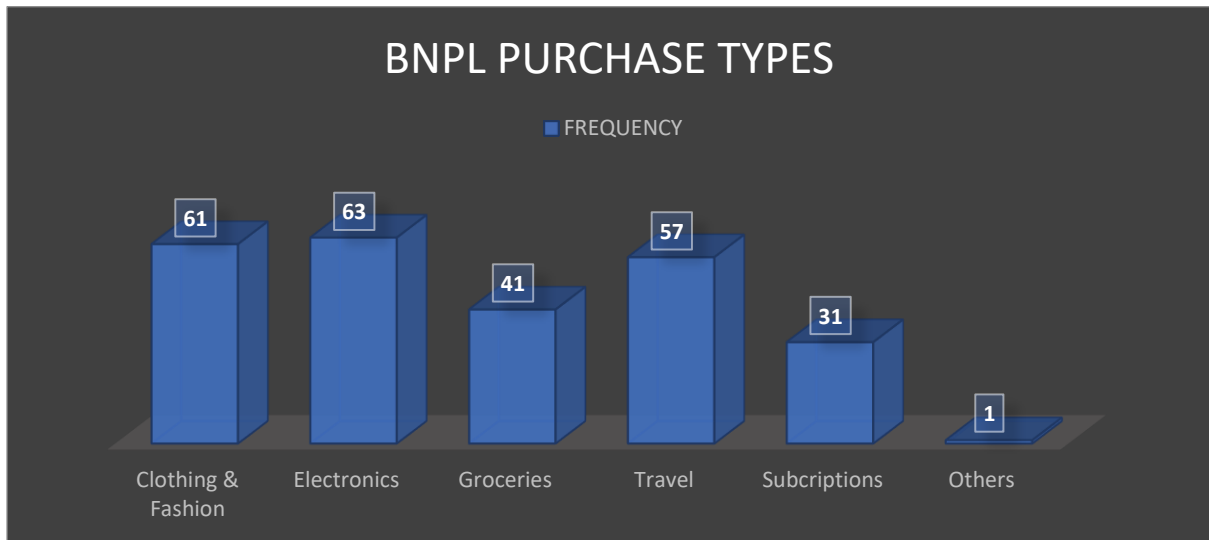


Figure 10.: BNPL purchase types sample