

**The Relationship between Consumer Perceptions and Use of Buy Now Pay Later (BNPL)  
Products**

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## **Abstract**

This paper examines the relationship between consumers' perceptions of Buy Now Pay Later (BNPL) products and their subsequent usage patterns. Based on the literature on consumer perceptions, marketing strategies and financial product promotions, this study employs dual information processing theory as a lens for understanding how perceptions drive adoption and use of BNPL services. I employ ordered logistic regressions to analyse responses from a survey of young consumers aged 18-34 in New Zealand conducted by Qualtrics to assess the impact of consumer perceptions of BNPL across multiple aspects on frequency of use, whether consumers borrow to repay BNPL, and frequency of incurring late fees.

The main findings suggest that marketing strategies significantly influence consumers' perceptions of BNPL, which in turn significantly affects their usage behaviour. Specifically, consumer acceptance of the attractive features of BNPL appears to mask the financial risks involved, relating to greater use and use consistent with impulse purchasing and possible subsequent debt accumulation. I also discuss regulatory challenges in the fast-growing BNPL market and the need for stronger consumer protection, explaining the psychological allure of BNPL products and their impact on consumers' financial well-being.

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## **Attestation of Authorship**

“I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor used artificial intelligence tools or generative artificial intelligence tools (unless it is clearly stated, and referenced, along with the purpose of use), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.”

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## **Chapter 1: Introduction**

Buy Now Pay Later (BNPL) is a significant innovation in short-term consumer finance products allowing consumers to make purchases, defer payment and offer consumers a flexible payment alternative to traditional credit, which has revolutionized the retail landscape. BNPL enables consumers to make purchases with interest-free instalments and with no establishment or annual fees. In 2022, the global BNPL market was valued at USD \$23.22 billion and is anticipated to expand significantly and reach USD \$122.19 billion by 2030, with a compound annual growth rate (CAGR) of 22.0% (Fortune Business Insights, 2023).

In New Zealand, BNPL has also surged in popularity with the market expected to reach NZ\$2.7 billion by 2026. It is bolstered by high consumer awareness, the rising demand for short-term finance, particularly among millennials and the expansion of BNPL providers such as Afterpay, Laybuy, Zip, and Klarna (Global Data, 2023).

BNPLs are challenging traditional payment methods and in the process are shaping how consumers perceive and behave towards BNPL. This research explores the relationship between consumers' perceptions of BNPL and their consequent usage of BNPL products, based on dual information processing theories. The study employed ordered logistic regression to analyse data from a survey of 705 young people aged 18-34 in New Zealand collected in 2022. The survey collected information on demographics and financial status, financial capability and knowledge, debt use, and detailed questions on BNPL usage. The research examines factors such as the frequency of BNPL use, how well consumers use BNPL based on consumers use of other debts to repay BNPL instalments, and the frequency of incurring late penalties. The findings suggest that how consumers perceive BNPL services (whether they perceive it as traditional debt, a cheaper option, or having lower consequences of use) might affect how often and how they use these services.

This research adds to a sparse but growing literature that considers BNPL, a rapidly growing financial product that is currently not covered by consumer finance regulations in most countries. As a result, the behaviour of providers, especially in terms of how they interact and appeal to consumers, may be critically important given the normal protections available to consumers are absent. The advantages that BNPL offers to consumers, such as financial convenience, accessibility, etc., are likely to shape consumer perceptions and thus the way that they use BNPL. If they promote excessive and impulsive use this could potentially lead to financial instability aided by the lack of consumer finance protections. This work stresses how BNPL services could be a double-edged sword: on the one side, a flexible payment innovation, and on the other side, a conduit for hidden costs and debt accumulation.

In essence, this paper will aim to bridge the gap in current academic understanding regarding the correlation between consumer perceptions of BNPL and their actual usage behaviours of these services provide insightful implications for consumers, financial service providers, and policymakers, emphasizing the need for a balanced approach to embracing financial innovations while safeguarding consumer interests, and compliance of regulation of BNPL industry.

## **Chapter 2: literature review**

### **2.1 Consumer perception**

#### **2.1.1 Overview of dual information processing theory in the context of consumer perception**

Perceptions, which are understood as the way individuals interpret sensory information to understand their environment, have been extensively studied across various disciplines. The origin and nature of perceptions have been explored through various theoretical lenses, including cognitive psychology (Grothmann & Patt, 2005). Within this realm, the dual-process model has emerged as a pivotal concept, providing a comprehensive framework to dissect human cognition into two primary systems. The dual-process model, a significant concept in cognitive psychology, posits that human cognition comprises two distinct systems or processes: the intuitive, automatic, and fast ‘System 1’ (perception), and the deliberative, controlled, and slow ‘System 2’ (cognition) (Kahneman & Frederick, 2002; Frankish, 2010; Strack & Deutsch, 2004). System 1 is characterized by high-volume intuitive thinking that draws on experience-based associations to calculate information fast and intuitively. System 2, on the other hand, employs low-capacity reflective thinking, rules learned through cultural or formal learning, and computes information in a relatively slow and controlled manner. To bridge these concepts, Type 1 encompasses rapid, automatic, and unconscious thinking, and Type 2 processes, characterized by slower, conscious, and regulated thinking, which are intrinsically connected. These processes are interdependent, with Type 1 often setting the initial framework of understanding, and Type 2 elaborates upon through more rigorous analysis (Frankish & Evans, 2009). Type 1 shapes immediate responses to environmental stimuli and forms the basis for more complex decision-making and reasoning that will be discussed later in this text.

One of the earliest mentions of a dual-process model can be traced back to William James in the late 19th century, who proposed a distinction between associative and true reasoning (James, 1975). However, modern dual-process theory has been significantly influenced by the work of various psychologists in the latter half of the 20th century. Kahneman, who has extensively discussed dual-process theory, highlights the limitations of rational decision-making and the influence of perception on human behaviours. He emphasizes that individuals do not always seek optimal solutions or rely on accurate information. Instead, they often rely on heuristics and biases that can lead to irrational decision-making (Felin et al. 2017). What’s more, perception is often more powerful and accessible than cognition, as it allows people to quickly process and respond to stimuli in their environment. However, producing accurate perceptions requires effort and cognitive resources (Fresco, 2022).

Cognitive thinking is also viewed in information processing theory as a limited resource. People cannot make careful, weighed, and rational decisions for every choice in their lives, or this would result in information overload. The intuitive system developed in part to help make decision-making easier and more automatic (Bargh & Chartrand, 1999). Because of the prevalence of intuitive thinking, this means many of people's decision making occurs in this system 1 or type 1 (intuitive) setting, which means the majority of decisions are based on intuitive perceptions, with just a small number relying on more complex cognitive processes and reasoning (Bargh & Chartrand, 1999).

The distinction between intuitive and cognitive responses is particularly relevant in marketing. Building a brand that resonates with consumers on an intuitive level— such as associating a product with a set of benefits— is a strategy that capitalizes on the inherent preference for automatic intuitive thinking. When consumers make brand choices habitually, their loyalty stems from intuitive associations rather than deliberative cognitive engagement, providing a clear advantage to a given brand.

Marketers often take advantage of the intuitive system to influence consumer behaviour, such as strategies employed to attract customers and foster brand loyalty. Marketers can create a perception that aligns with consumers' desired image and ultimately influences consumer choices.

Marketing intelligence and analytics can also be used to understand customer behaviours and develop a differentiated product strategy (Lim et. al, 2023). For example, a bank can analyse credit card transactions to identify potential growth opportunities and distinct customer segments. This can be used to tailor financial products to meet the specific preferences or needs of different customer segments (rational perception) and to create personalized marketing messages that resonate with consumers on an emotional level (emotional perception).

Financial product marketing can likewise be linked with dual consumer perception through various strategies. The dual consumer perception refers to the two different ways consumers perceive and interact with financial products: the rational, objective perception based on product features and benefits, and the emotional, subjective perception based on personal feelings and experiences (Yu & Fang, 2009). To illustrate, consider a financial app that uses engaging visuals and simple language to claims to be fairer than traditional debt, contributing to a quick and easy understanding of the product's features and appealing to the user's intuitive System 1 processing. Compelling visuals immediately grab System 1 attention and hold it, creating a stronger, faster connection to the product. System 1 processes emotional appeals faster, bypassing the more analytical and slower processing of System 2. At the same time the claim that the application is fairer than traditional debt may suggest

an immediate benefit or satisfaction, which resonates with the impulsive nature of System 1 processing, which focuses more on immediate results than long-term consequences.

Consumers using system 1 processing are more likely to trust it and engage with it impulsively, without in-depth analysis. This emotional response may lead to rapid adoption of this product, as consumers may feel an immediate sense of relief or satisfaction. This stresses the need to address not only the role of perceptions in marketing but also their potential impact on financial decision-making. In conclusion, perception is a powerful and often more accessible aspect of cognition, but it is also susceptible to biases and heuristics.

## **2.2 Consumer perception of payment mechanism**

### **2.2.1 Consumers' characteristic perceptions of payment options**

From traditional cash transactions and credit cards to modern financial technology, consumer perceptions of various payment methods could influence spending behaviour and financial decisions. This section will delve into consumer psychology and examine customer attitudes towards various payment mechanisms.

Soman (2001) investigates how different payment mechanisms affect consumer spending behaviours. The author tests over four experiments whether less transparent payment forms, such as credit or debit cards, promote greater spending. Soman shows that a pain associated with paying is muted when the consumer's mode of payment is less physical and transparent, as with credit cards that remove the need to count out cash.

Additionally, Soman also finds that individuals spend more when they perceive the payment to be less real, such as when payment and consumption are decoupled from purchase, as is the case with prepayment of an item. The results show that the form of payment can affect spending behaviours, even when the monetary outlay remains constant. This aligns with a well-documented personal finance strategy, where individuals who struggle with overspending are advised to use cash as a tangible means of budgeting, enforcing a more immediate sense of expenditure (Prelec & Loewenstein, 1998).

Building on this, Chatterjee and Rose (2012) examine how payment methods affect consumers' perceptions of product value. Their findings suggest that credit card users are more likely to perceive product benefits than costs, suggesting that the convenience of using a credit card leads to a bias. As a result, the authors concluded that credit card users were focusing on benefits of the product rather

than the cost. In contrast, cash users were more aware of costs, possibly because cash transactions require taking out money immediately, which may amplify the perceived 'pain' associated with consumption. These insights are crucial as they illustrate a cognitive bias whereby credit consumption is perceived as having less impact, which may lead to higher consumption (Thomas et al., 2011). The faster response time of credit card users to benefits shows stronger associations in system 1 intuitive thinking between credit cards and benefits, instead of with costs. This differential focus led credit card primed consumers to express higher reservation prices and affected their product choices. This demonstrates that consumer perceptions of payment mechanisms can change the way that consumers make spending decisions, in this case switching to a focus on benefits of a payment method in one form of payment mechanism rather than costs of a purchase.

Further supporting the concept of the "pain of paying," studies by Rick et al. (2008) and Mazar et al. (2016) provide empirical evidence that the pain of paying is a literal pain experience. They found that the anticipation of this financial pain actually changes people's willingness to spend, with pain-reducing payment methods such as credit cards leading to a higher propensity to spend. This emotional response to spending can have a direct impact on consumer behaviour: when the immediate emotional discomfort of squandering money is reduced, people are likely to spend more freely. Taken together, these studies suggest that consumer perceptions of payment mechanisms are influenced by a variety of factors, including the transparency of the form of payment and the psychological pain associated with giving up money.

Thus, payment methods are not only a transactional tool, but also a determinant of consumer perceptions. It is often emotional reactions that guide consumer decisions, instead of detailed cognitive analyses. By understanding perceptual biases, marketers can strategically design payment methods to align with consumer intuition, subtly guiding consumers to higher spending choices or loyalty of payment tools.

### **2.2.2 Consumer perceptions of digital payment mechanism vs. traditional payment options**

Traditional and digital payment systems each have benefits and drawbacks, and people's perception of one over the other might vary depending on a variety of factors (see Table 1).

**Table 1: Adapted from consumer perceptions and trends in digital payments as reported by McKinsey & Company (see References)**

	<b>Traditional Payment Methods</b>	<b>Digital/Mobile Payment Methods</b>
<b>Convenience</b>	Lower (need for physical cash or checks)	Higher (can pay anytime, anywhere)
<b>Speed</b>	Lower (time to process checks, need for ATM for cash)	Higher (instant transfers and payments)
<b>Security</b>	Mixed (cash can be lost/stolen, but no digital data breach risk)	Mixed (risk of digital data breaches, but no risk of lost/stolen cash)
<b>Ease of Use</b>	Higher for older generations (familiarity)	Higher for younger generations (tech-savvy)
<b>Record Keeping</b>	Lower (especially with cash transactions)	Higher (digital trail of all transactions)
<b>Accessibility</b>	Higher (no need for internet or smart device)	Lower (requires internet and smart device)
<b>Innovation</b>	Lower (limited features)	Higher (continuous updates, new features)
<b>Cost</b>	Lower (no service fees for cash/checks)	Mixed (some digital services have fees)
<b>Rewards/Incentives</b>	Lower (especially with cash/checks)	Higher (many digital services offer rewards)

As Table 1 shows, consumers' perceptions of payment mechanisms, whether traditional or digital, are determined by the various attributes offered by each method. Traditional methods, such as cash or cheques, are often perceived as more tangible and immediate, which may translate into greater "payment pain" and therefore more cautious spending. On the other hand, digital methods, represented by their convenience and speed, may alleviate this pain and thus lower psychological barriers to spending. These methods also offer additional incentives. For instance, reward schemes could further encourage their use relative to traditional methods.

Digital payment options could configure consumer preferences by providing a creative purchasing experience. This may lead to increased consumer spending as the immediate financial impact is mitigated. This could also encourage less careful financial planning, as ease of use and rewards may overshadow the long-term costs or over-debt problem.

## 2.3 Overview and Background of BNPL Products

### 2.3.1 Introduction to BNPLs

Buy Now, Pay Later (BNPL) systems offer a novel approach to consumer financing, both in physical stores and online, providing a straightforward application process without extensive credit checks. The ease of access differentiates BNPL from conventional credit options like credit cards and personal loans, making it an increasingly popular choice among consumers. In New Zealand for instance, BNPL in 2024 represented about 11% of all e-commerce transactions despite having been available for less than 10 years (Worldpay, 2024).

BNPL products are a form of debt, despite not currently being regulated as such. BNPL allows for the deferral of payment, creating an obligation that mirrors traditional indebtedness: acquiring value now with a promise to repay in the future, often with additional charges if terms are not met (Graeber, 2012). So how does BNPL Work?

To typical lifecycle of a BNPL transaction:

1. **Sign-Up:** Registration with a BNPL provider is typically quick, often requiring minimal financial information. The process begins with a simple sign-up procedure: consumers register with a BNPL provider, often without the stringent credit checks required by conventional credit providers (Gerrans et. al, 2022). This typically involves downloading a mobile app and verifying a cell phone or email address. Like credit cards, users have a credit limit that the provider sets when they join. For instance, Afterpay allows users to borrow up to \$600 when they first join, but demonstrated ability to repay on time will see this increase to \$2,000 over time.
2. **Purchase:** Consumers use the BNPL service at the checkout, either in-store or online, to defer most of the payment for their purchase. BNPL has become extremely widely accepted both in-store but particularly for online transactions. Unlike products like hire purchases which are limited to certain types of stores, for instance hire purchase is not typically available in clothing stores, BNPL is available for an extremely wide range of products and services including medical costs, consumer discretionary items, groceries, and controversially has been made available at some liquor stores (Reweti Kohere, 2022).
3. **Repayment:** The total cost is divided into instalments, to be paid according to the provider's schedule with repayments spread out over a few weeks to no more than two months, depending on the provider's terms. For instance, Afterpay, Klarna, and Zip divides the payment into four equal instalments over six weeks, while Laybuy offers six weekly instalments. In both cases, the first instalment is made at the time of the purchase. These structured payments are supposed to

allow users to manage their cash flow more effectively, granting them immediate access to what they need without the upfront capital (Johnson et. al, 2021; Ah Fook & McNeill, 2020).

4. **Missed Payments:** If a consumer fails to make a payment on time, they may be subject to late fees. For example, Afterpay charges 25% of the original purchase value for each purchase below \$40. For each purchase of \$40 or above, an initial \$10 partial late fee, and a further partial late fee of up to \$7 if the payment remains unpaid 7 days after the due date (Afterpay, 2023) up to a maximum of 25% of the original purchase value. To reduce the risk of accumulating more debt, a consumer's account may be temporarily suspended, prohibiting further purchases until the late payment is resolved. Some BNPL providers will report to credit bureaus, so missed payments may negatively impact a consumer's credit score. Continued non-payment may result in the account being referred to a debt collection agency. This step represents a more serious attempt to recover outstanding funds, may involve additional fees, and will negatively impact a user's credit score. In extreme cases, legal proceedings may be initiated to recover the debt. Whilst this is uncommon, it is important that consumers are aware of this possibility.

### **2.3.2 Historical Context and Evolution**

The modern iteration of BNPL can be traced back to the early 2010s with the emergence of companies such as Klarna in Sweden and Afterpay in Australia. These companies pioneered the model that allowed consumers to defer payments with minimal upfront costs and without the accrual of interest, a significant departure from traditional credit schemes (Cook, et al. 2023).

The technological advancements in e-commerce and mobile banking significantly contributed to the rise of BNPL. The increased penetration of smartphones and the convenience of online shopping created a fertile ground for BNPL services, which integrated seamlessly into online checkout systems. This integration made BNPL attractive to retailers and consumers alike, as it facilitated immediate purchases, boosted consumer spending, and improved conversion rates for merchants (Natswa, S. L. A ,2021).

Market penetration of BNPL services in New Zealand has seen exponential growth. According to a report by the New Zealand Financial Markets Authority (FMA) in 2021, an estimated 300,000 New Zealanders had active BNPL accounts, showcasing the rising consumer preference for these flexible payment options. The same report highlighted the appeal of BNPL services due to their ease of use and accessibility, often facilitated by seamless integrations into online checkout systems of major

retailers. Major global players like Klarna and Zip have also entered the New Zealand market, adding to the competitive landscape, and providing consumers with more choices.

Internationally, the BNPL market has seen rapid expansion, with major financial players and fintech startups alike entering the space, each offering various tweaks to the core BNPL concept to differentiate themselves in a crowded market. This global spread has been accompanied by increasing regulatory attention as governments and financial authorities begin to assess the need for oversight to protect consumers and ensure financial stability (Cumming, D, et al .2023).

### **2.3.3 BNPL and Regulatory Environment**

In New Zealand, consumer finance is regulated by the Credit Contracts and Consumer Finance Act 2003 (“CCCFA”). This has been amended over time to increase consumer protection. At present, the law requires responsible lending practices, requiring providers to make reasonable inquiries into a consumer's financial situation to ensure credit products are suitable and affordable (Ministry of Business, Innovation & Employment, 2022). A "suitable" product can be understood as one that meets the needs and financial objectives of the consumer. This means that the product should not expose the consumer to unnecessary risk and should meet the consumer's borrowing objectives. "Affordable" refers to the ability of the consumer to meet their repayment obligations without suffering financial hardship. This requirement impose significant requirements on lenders to enquire about the consumers needs and abilities to meet repayments and come with significant legal penalties for breaches of these requirements.

However, in New Zealand, as in a number of countries, BNPL currently falls outside the purview of consumer finance regulation.

BNPL avoids being captured by the CCCFA as s15 exempts products where the consumer repays the same amount as the cost of the transaction or service, and where repayment is made within two months. BNPL services are zero- interest and do not charge customers fees, making them costless if the customer adheres to the repayment schedule. Additionally, most BNPL providers require repayment within 2 months, making them exempt from the CCCFA currently. As a result, there is no obligation to undertake suitability and affordability checks, putting a much greater onus on the consumer to ensure the product is suitable and they can meet the repayment requirements. Changes to the CCCFA to include BNPL have been suggested, but as yet it is not clear if or how this will be accomplished although some overseas jurisdictions have changed their laws to capture BNPL and treat it similarly to other forms of consumer finance.

#### **2.3.4 A critical evaluation of BNPL's Significance**

Buy Now, Pay Later (BNPL) services have emerged as innovative financial tools, addressing challenges such as cash flow management and credit accessibility. Such services have gained traction in New Zealand, providing a means for managing finances more flexibly. These systems offer unique ways of managing personal finances, particularly by improving cash flow management and widening access to credit. However, while BNPL offers some benefits, it has also been criticised for facilitating over-indebtedness and overspending (Consumer NZ, 2022; Ministry of Business, Innovation & Employment, 2024).

BNPL services like those offered in New Zealand enable consumers to distribute the cost of purchases over multiple, zero-interest instalments. This approach aids in monthly budgeting as it allows consumers to make necessary purchases without incurring immediate financial strain. According to the Consumer Financial Protection Bureau's 2023 report, the average purchase amount financed by BNPL loans showed a notable increase, suggesting a broader acceptance and reliance on BNPL for larger purchases. This shift indicates a growing preference among consumers to leverage BNPL for financial management and cash flow distribution, which is particularly valuable in an economic climate that values flexibility and adaptability. However, BNPL services may lead to the accumulation of debt, as the instant gratification provided by these services dissociates the pleasure of acquisition from the payment responsibility. If a consumer fails to meet the repayment terms, they can quickly find themselves in a cycle of debt, especially if they have multiple BNPL plans running concurrently (Australian Securities & Investments Commission, 2018).

BNPL products provide a less cumbersome and more accessible credit option compared to traditional credit sources. With minimal eligibility requirements and no immediate impact on a consumer's credit score, BNPL platforms are particularly appealing to those with limited access to conventional credit facilities. This is especially pertinent in markets like New Zealand, where innovative financial solutions are prized for their ability to integrate seamlessly into consumers' lives (CFPB, 2023). While BNPL promotes financial inclusivity, it should not overlook the needs of consumers with poor credit histories who may be more vulnerable to incurring late fees, making BNPL an expensive debt form. Additionally, BNPL providers may not adhere to the strict regulations typically imposed on other consumer finance providers, such as the requirement of credit checks or clear disclosure of terms. The lack of stringent regulations, like those for standard credit options, can pose risks. Consequently, BNPL's regulatory environment may not always enforce consumer protections to the extent of other credit models, leaving a gap that could harm consumer finances (Fisher et al, 2021; Australian

Securities & Investments Commission, 2018; Deloitte, 2022). This regulatory gap can potentially put consumers at risk of financial harm.

For retailers, BNPL schemes have catalysed changes in consumer purchasing behaviours, leading to increased sales volumes and higher average transaction values. The CFPB report from 2023 reflects a broader trend where retailers partnering with BNPL platforms have seen increases in average order values. In New Zealand, this impact is mirrored by local retail data which suggests that retailers experience a 20-30% increase in basket sizes when consumers opt for BNPL solutions at checkout. Yet, there is a delicate balance to maintain, as increased basket sizes should not encourage consumers to exceed their financial means (PYMNTS, 2022).

BNPLs have shown remarkable adaptability during economic uncertainties, such as those presented by the COVID-19 pandemic. The flexibility offered by BNPL services became a crucial financial tool for many consumers, allowing them to continue accessing goods and services without the upfront financial burden. However, the flip side is the potential for facilitating impulsive purchases that could exacerbate financial vulnerabilities.

A more recent trend emerging from the current cost of living crisis driven by high inflation is the use of BNPL to pay for everyday essentials such as food. While BNPL is easily accessible and allows the cost to be spread, allowing consumers to manage periods of cashflow stress, the delayed nature of the payments may simply be stealing from Peter to pay Paul by reducing disposable income in future periods.

In conclusion, BNPL offers a relatively unique consumer finance product that allows consumers to quickly, and with minimal requirements, access zero-interest debt that allows them to spread the cost of purchases over a short period of time. These features make BNPL both interesting and attractive to consumers but comes with risks that are less pronounced in more typical consumer finance products. BNPL users are required to be more conscious of the consequences of their borrowing as there is no regulatory requirement on lenders to make sure they can afford the debt. Additionally, while BNPL has no interest, it comes with late fees that can significantly increase the cost of the purchase if the user misses' payments.

## 2.4 Marketing and Appeal of BNPL Services

To raise interest in these services, BNPL providers use powerful marketing and branding techniques. To draw in new customers and keep hold of current ones, these service providers employ a variety of social media platforms, influencer collaborations, and marketing efforts (Aalders, 2023).

These businesses are not claiming to be simply another type of credit. Rather, BNPL providers clearly assert that they are more ethical than regulated products like credit cards, and position themselves as responsible lenders, which frames and characterizes their consumers as responsible spenders (Gerrans et al., 2022). Responsible spending as defined by BNPL providers is repaying the credit on time (Gerrans et al., 2022). For example, the positioning of BNPL financial products is made from the website of well-known BNPL service provider Zip (2023):

*"Zip is a responsible credit provider. Zip was born out of the belief that there should be a better, fairer alternative to the unfriendly credit card model (which often relies on high revolving balances and high compounding of interest for customers). We have a clear and direct goal to create transparent, accountable, and fairly priced credit products for our customers and merchants - a goal we work tirelessly to achieve and one that is consistent with our values of helping to create healthy finances. "*

Additionally, it is also worth noting that the widespread expansion of the BNPL platform could introduce unethical practices such as undisclosed fees and aggressive debt collection methods (Reserve Bank of Australia, 2021). The unregulated expansion of BNPL products could be disruptive to the traditional credit model, with significant repercussions for the banking and credit industry as a whole (Ministry of Business, Innovation and Employment, 2021). Lastly, a lack of appropriate oversight could accelerate market consolidation, restrict competition, and potentially harm consumers (Reserve Bank of Australia, 2021).

Importantly, while BNPL providers portray themselves as fairer than other debt providers, the BNPL model has been established as a driver of impulse buying behaviours. BNPL provides immediate access to goods and removes some of the financial constraints as associated with traditional credit cards (Ah Fook & McNeill, 2020). Millennial and Generation Z consumers typically avoid credit cards because they are not willing to bear high interest rates, making BNPL advertising of no-cost or zero-fees attractive (Relja et. al, 2023). The perception of BNPL as a fintech product, which are themselves perceived as less expensive than other financial services (Panetta, 2018), further enhances the appeal of BNPL as Millennials and Generation Z are more accepting of fintech (Sachdev, 2019). However, BNPL providers are subject to high late fees for consumers who fail to make timely repayments and has made up a sizeable portion of BNPL revenues. For instance, as noted in a 2020 submission on BNPL by Laybuy, over 25% of their revenue was derived from late

penalties (Laybuy, 2020). While BNPL services do not typically charge traditional interest, these late fees, despite being capped, can accumulate quickly, and may result in adding to financial hardship experienced by some consumers.

While BNPL services have revolutionised consumer finance with their user-friendly and easily accessible model, they also present significant regulatory challenges. The lack of regulation in the BNPL industry has led to inconsistencies in consumer protection, disclosure requirements and lending practices, leaving loopholes that could be exploited to the detriment of consumers' interests (Bea and Bley, 2022). Besides, BNPL providers have a clear marketing strategy, using social media and branding to promote the idea of ethical lending and responsible consumption. That is particularly important for young and vulnerable consumers, who may be more susceptible to marketing strategies that underestimate the risks of BNPL services. These individuals are at risk of over-crediting and falling into debt traps (Johnson et al, 2021). BNPL products in New Zealand currently lack regulatory safeguards similar to traditional credit agreements, so consumers are unprotected against undisclosed fees, aggressive debt collection practices, and the potential for over-indebtedness.

In summary, BNPL products have emerged as an innovative credit tool for a wide range of consumers. While these services offer a convenient and zero-interest way to manage cash flow and satisfy the desire for instant gratification, they also have significant risks. BNPL schemes can lead to impulsive purchases and the accumulation of debt due to lax enrolment procedures and lack of stringent credit checks. In addition, consumers may not be fully aware of the consequences of falling behind on their payments, which include costly late fees and possible long-term effects on their credit scores (Bian et.al, 2023). Consumers should remain informed and cautious, recognizing the benefits and possible pitfalls of these products.

In summary, the main focus of BNPLs marketing is to influence consumer preferences by highlighting the products convenience and flexibility, while downplaying traditional notions of debt. The success of these efforts may explain why BNPL options might have become so popular.

## **2.5 Debt perceptions among consumer groups**

This section will analyse the different attitudes and behaviours of three demographic groups (female consumers, millennials and low-income individuals) towards BNPL services. Each group's interactions with BNPL products reveal underlying motivations and preferences that drive their financial decisions.

### **2.5.1 Women**

Use of BNPL debt by women in New Zealand is widespread and growing rapidly. A report from Good Shepherd (Good Shepherd Australia New Zealand, 2022) also notes that the need to provide advice on BNPL-related debt has increased eight-fold between 2017 and 2021, and that increasingly BNPL products are being used to pay for essential expenses such as food, groceries, furniture, appliances, baby products, utilities, transport, and petrol.

Ah Fook and McNeill (2020) examine the relationship between impulse buying tendency and the use of BNPL services, focused on young adult females and their online impulse buying behaviours. They found that BNPL schemes can increase the likelihood of impulse buying, both cognitively and affectively. This means that people using BNPL services are more likely to make spontaneous and less reflective purchases. Roy Morgan (2019) further indicates that women are significantly more likely to use BNPL services such as Afterpay, Zip Pay, or Zip Money than men. Over one-in-ten women (11.6%) reported using a BNPL service in the last year compared to only 5.5% of men. The research points out that digital payment solutions represent a frictionless option for consumers, and services like Afterpay, which are easy to use and offer an alternative to traditional transaction services, have a strong appeal, especially among women. The reasons for this trend could include various factors such as marketing strategies of BNPL services targeting women, the convenience of these services, and the types of products women are more likely to purchase online.

### **2.5.2 Younger generations**

Millennials and Generation Z show a preference for fintech solutions such as BNPL as they are increasingly comfortable with technology and digital transactions. Relja et al. (2023) highlights that these younger generations, notably characterized by their aversion to conventional credit forms and high-interest options, find BNPL services particularly appealing due to their straightforward, zero-interest propositions. However, younger individuals have little to no credit history (Deutsche, 2022) and limited financial experience of debt use. As a result, BNPL services attracted a population historically wary of traditional credit lines and have effectively created new debtors.

Most young individuals believe that fintech services are less expensive than banking services (Abu Daqar et. al, 2023). In addition, the influence of peers and social circles can play a role in the adoption of financial practices. If a young person's friends are using BNPL services, they might be more likely to try them out as well (Cordoba et. al, 2022). BNPL providers specifically target younger consumers through marketing campaigns and promotions that highlight the ease of using their services (PENZO,

2022). These messages can resonate with individuals who are looking for simple and hassle-free payment option (Cordoba et.al, 2022).

These factors highlight the reasons for BNPL's popularity as a financial product favoured by younger consumers, as it promises a powerful and flexible purchasing experience without the direct burden of traditional debt.

### **2.5.3 Lower incomer**

Lower-income individuals may use BNPL services for several reasons, even though it could potentially exacerbate their financial situation (Johnson et.al, 2021; Mesly 2021; Jachimowicz et.al, 2017). To start with, lower-income individuals might face urgent needs or unexpected expenses to make purchases even when they don't have enough cash on hand. BNPL can offer a way to acquire essential items with immediate upfront payments. Secondly, traditional credit options like credit cards or personal loans might be harder to obtain for individuals due to limited credit history or lower credit scores. So BNPL services may have more lenient eligibility criteria, making them a more accessible option.

Also, for this group, spreading out payments over time and acquiring desired items immediately might seem like a feasible way to manage expenses. So BNPLs can be seen as a short-term solution to ease financial strain. Yet in some cases, lower-income individuals might not be fully aware of the potential risks associated with BNPL services. They might focus on the short-term benefits without considering the long-term financial implications.

### **2.5.4 Consumer motivations**

In summary, BNPL services have gained popularity among various demographic groups, including women, younger generations, and lower-income individuals, based on three common dominant perceptions or reasons.

First, these products offer convenient access to credit. BNPL services provide immediate access to credit without delay by forgoing the need for a credit check. This makes them an accessible option for lower-income individuals who may not qualify for traditional credit options. Younger generations, who may not have had time to build a substantial credit history, may also find BNPL services more accessible. So, in general, people have awareness that BNPL is a credit tool with less complicated and more friendly user experience (compared to traditional debt products, like credit cards).

Second, BNPL benefits from consumers' perceptions of affordability. BNPL services often market themselves as zero-interest or alternatives to traditional credit. This can make purchases seem more affordable, as the cost is spread out over several payments, and users may undercount the true cost of the item and so may be encouraged to spend more. That is particularly appealing to younger generations and lower-income individuals who may not have the financial flexibility to make certain purchases outright, allowing people to give into impulse purchases.

Third, BNPL products are perceived as having lower consequences. The marketing of BNPL services often emphasizes the convenience and affordability of these services, which can downplay the potential financial consequences. With extensive marketing campaigns, these providers make every effort to tell the consumer that smaller, more manageable payments can make the purchase seem less impactful on one's finances, even if the total cost is the same.

## **2.6 Analysing the impact of consumer perceptions on BNPL usage and financial behaviours: Identifying the research gap and proposing hypotheses.**

The literature review delves into consumer perceptions via the lens of dual information processing theory, which provides insights into how consumers perceive, and process information related to financial products and services. It highlights the significance of perceptions in influencing consumer behaviour, emphasizing their profound impact in the realm of marketing.

By examining different demographics, the literature investigates how different segments—such as women, younger generations, and lower income individuals—are more motivated and have greater opportunities to utilize BNPL products. The assortment of BNPL products available in the market is also elaborated on, detailing their various features and nuances.

It is crucial to understand how marketing strategies shape consumer perceptions and utilise them. By highlighting the ease of use, instant gratification, and perceived affordability of BNPL products, marketing strategies aim to make these systems more attractive to consumers, encouraging their adoption over traditional credit options. Marketing messages that portray BNPL as an ethical and responsible choice aim to reduce consumer apprehension about using credit, suggesting that BNPL is a smarter, more manageable way to finance purchases. These marketing strategies that often tout benefits may encourage consumers to use system 1 processes --Intuitive, fast, and automated decision-making process. System 1 is sensitive to the inspiration and bias brought about by marketing campaigns and may lead to impulsive use and purchasing behaviour.

System 1 could process marketing leads and create associations that make BNPL seem more attractive than other forms of credit. BNPL services utilise the instant return heuristic by advertising zero - interest charges. Consumers are likely to associate BNPL with cost savings and make quick, cost-centred decisions, prioritising short-term benefits over long-term financial implications. Marketing strategies that emphasise responsible financial management providers may attenuate the perceived risk associated with BNPL. This can reduce psychological barriers to use, as the immediate fear of debt is diminished. Besides, consumers may ignore the possibility of debt accumulation because they are optimistic that they can manage repayments without problems. At the same time, when BNPL is not seen as a loan but as a 'budgeting tool', it may reduce the mental accounts normally associated with borrowing. This could minimise the perceived cognitive burden of debt, as System 1 processing fails to categorise BNPL as a traditional financial obligation, which is likely to lead to increased use.

So, there seems to be a significant literature gap in understanding the relationships between consumer perceptions of BNPLs and their actual usage and management of BNPL services. More specifically, the defined gap is the lack of a clear understanding between consumer perceptions of BNPL and their subsequent behaviours and a deeper insight into demographic-specific behavioural patterns regarding BNPL usage and management.

Given the defined gap, this paper will explore the following hypotheses that examine the relationship between perceptions and usage and focus on how different consumer demographics manage BNPL based on their perceptions:

### **1. Relations with frequency of using BNPL products**

**1a:** There is an association between the perception of BNPL as a form of debt and a lower frequency of BNPL product usage.

**1b:** Perceiving BNPL as a cheaper option is associated with a higher frequency of usage.

**1c:** A perception of fewer consequences associated with missing BNPL repayments is associated with a more frequent use of BNPL products.

### **2. Relationship with using other debt instruments to repay BNPLs**

**2a:** There is an association between the perception of BNPL as a form of debt and less utilisation of using other debts to repay BNPLs.

**2b:** There is an association between the perception of BNPL as cheaper and an increased tendency to utilize other debts to repay BNPLs.

**2c:** The perception that there are fewer consequences of missing BNPL repayments is significantly and positively associated with higher propensity of using other debts to repay BNPLs.

### **3. Relationship with frequency of incurring late penalties**

**3a:** There is an association between the perception of BNPL as a form of debt and a reduced incidence of late penalties.

**3b:** Perceiving BNPL as a cheaper option is associated with a higher incidence of late penalties.

**3c:** The perception of fewer consequences of missing BNPL repayments is associated with an increased frequency of incurring late penalties.

These hypotheses are designed to capture the potential influence of consumer perceptions on their actual financial behaviours and outcomes when using BNPL services. They reflect the complexity of consumer decision-making processes and the potential risks associated with BNPL products.

## Chapter 3: Research Design and Methodology

### 3.1 Research Design

Data were collected in a survey of 705 young people in New Zealand, aged 18-34, in 2022 conducted by Qualtrics<sup>1</sup>. The survey collected information on demographics and financial status, financial capability and knowledge, debt use, and detailed questions on BNPL use. Respondents were asked about their use of BNPL including the providers they had used, how often they had used BNPL, the characteristics of their use of BNPL (including how often they had use or incurred costs, why they had incurred costs). In addition, respondents were asked a number of questions relating to their perceptions of BNPL, including whether or not they perceived BNPL products as a form of debt, whether or not they perceived these products as being more affordable than other consumer finance options, and whether they viewed BNPL as having fewer consequences and what they perceive to be the consequences of missing the repayment of BNPL products. These three aspects of consumer perception relate to the way BNPL has previously been advertised, particularly by some providers such as Afterpay, who have previously been outspoken in claiming that Afterpay is not debt and does not affect people's credit scores (Afterpay, 2023).

I employ ordered logistic regression to explore the relationship between the use of BNPL products and consumer perceptions. More specifically, the aim is to understand the association between consumer perceptions of BNPLs and the frequency of BNPL use, and the quality of use based on whether the consumer uses other form of debt to repay BNPL settlements, and the frequency they incur late fees.

Given that the dependent and independent variables in this study are ordered variables, this study will use ordered logistic regression to analyse the effect of multiple consumer perceptions (3 perceptions) on usage patterns (3 perspectives). Multiple demographic variables are added as control variables. In addition to this, respondents' habit of debt usage **debt class** (categorical variable), and whether they are currently using the BNPL product, are also included as control variables. The inclusion of these control variables helps to control for confounding factors that may influence the relationship between consumer perceptions and usage patterns. By taking these factors into account, the impact of consumer perceptions on BNPL usage can be more accurately isolated.

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<sup>1</sup> This research was conducted under ethics approval from the AUT Ethics committee, application 22/82. See Appendix B for the approval.

In addition to this, respondents' debt class helps to understand and control for the respondent's debt situation. Respondents who carry more debts overall may be more prone to using debt, and more likely to get into debt spirals and fail to repay debts on time. By controlling for debt class, we isolate the impact of consumer perceptions of BNPL rather than debt in general.

The variable of whether respondents are currently using a BNPL product provides insight into financial behaviour at the time of data collection. Current users may have different perceptions and usage patterns than past users or those who have never used BNPL. For example, current users may be more familiar with the rules of BNPL usage, and therefore may use these products more strategically.

Overall, the inclusion of these control variables improves the predictive power of the model. They add depth to the analysis by incorporating a wider range of influences, providing a more complete picture of the factors associated with BNPL use.

## **3.2 Measurement of variables**

### **3.2.1 Dependent variable selection and research focus**

To examine how consumer perceptions impact the use of BNPL I consider two aspects of use, the frequency of use and how wisely BNPL is being used. The frequency of using BNPL products (BNPL Freq) examines if consumers who perceive BNPL as having more benefits are associated with being more likely to use BNPL more frequently. I measure frequency based on a survey question that asked respondents how often they used BNPL: never, once, or twice, occasionally, monthly, constantly. From this I construct a three-point measure where users were defined use it infrequently if they have used it once or twice and couple of times BNPL (score =1), or occasionally (use once every 2-3 months, score =2) or use it frequently if they use it monthly or constantly (score = 3)

In terms of measuring how wisely consumers use BNPL, this work examines two variables associated with evidence that the consumer planned or considered their use of BNPL. Specifically, my work looks at whether users had to use other forms of debt to repay their BNPL, suggesting that they had not adequately planned budgeted for their repayments, and the frequency of incurring late penalties, which again speaks to having ensured they were able to meet their repayment obligations. These are strong indicators of financial management behaviour around BNPL, which could provide insight on whether consumers are using BNPL impulsively and therefore potentially adding to their financial burdens. To measure whether a user is using other debt to repay BNPL, respondents were asked whether other forms of debt are used to repay BNPL with respondents answering either yes or no -

with a third option of non-disclosure. For ease of data processing and to avoid non-response bias, I removed 39 respondents who chose not to answer. The responses were coded such that respondents answering no were scored 0, while 'Yes' respondents were scored 1. The presence of frequent incurring late fees may suggest a deficiency in financial planning, a misinterpretation of BNPL conditions, or the possibility of experiencing financial hardship. Respondents were asked how often they incurred late fees and were given the options of never, once, twice, three times and more than three times. This was consolidated into the following categories: I classified "never" as infrequent (score =1), "once" or "twice" as rarely (score =2), "three times" and "more than three times" as frequent (score= 3).

### **3.2.2 Independent variable selection and research focus**

The independent variables include perception of BNPL as debt (Is debt), perceived cost-effectiveness of BNPL (Is cheaper), and perceived consequences of missing BNPL repayments (Fewer consequences) are measured on a 3-point scale derived from the original 5-point scale where responses 'Strongly disagree' and 'Somewhat disagree' are combined into the single category 'Disagree' (score =1), 'Neither agree nor disagree' remains 'Neutral' (score =2), and 'Somewhat agree' and 'Strongly agree' are merged into 'Agree' (score =3). This measure seeks to capture respondents' agreement with the statement, thereby gauging perceptions that originate from the marketing and positioning of BNPL in the financial sector.

I address these specific perceptions based on attributes that BNPL providers typically choose to highlight in their advertising. Specifically, BNPL providers attempt to distinguish BNPL from traditional forms of debt suggesting it is either not debt, or a more ethical form of debt. Additionally, the zero-cost nature of BNPL is heavily promoted, as is the fact that BNPL does not impact on credit scores has been widely promoted. Each of these variables directly explores consumer perception and serves as a basis for assessing the potential impact of BNPL marketing. By linking these variables to three dependent variables, it is possible to explore the impact that consumer perception has on consumers' patterns of BNPL use, and by extension, assess the effectiveness of BNPL marketing.

Additionally, a comprehensive set of control variables has been incorporated to ensure that the primary relationships are not confounded by extraneous factors. From a demographic perspective, the model controls for age, gender, and a range of ethnic backgrounds, including Māori, New Zealand European, Pacific Islander, Asian, Indian, and other ethnicities, recognising the possibility of cultural differences in financial behaviour. Respondents were also asked whether they were in full-time work, part-time work, studying, not currently in paid work or some other employment (including self-

employed), and their current living arrangements; lived with a partner, children, parents, relatives, non-relatives or alone, and how many people financially depending on them, as these influence both their ability and need to use BNPL.

The model also includes a comprehensive range of measures for financial knowledge and attitudes, including measures of financial capability, debt knowledge, debt attitudes and money management skills. Additionally, behavioural considerations were included including materialism. Finally, after-tax income provides insight into the values that may drive consumer behaviour and the economic means to achieve this behaviour.

In addition, I added **debt class** and whether the respondent is currently using BNPL (`debt_bnpl`) as control variables: The categorisation of debt users in this study are based on Gilbert and Scott (2023). They use the same survey as this study looking at 705 young adults in New Zealand. They ask respondents what debts they currently have from a list of 11 different types of common consumer debt and use Latent Class Analysis to cluster respondents into one of four categories; including 'Debt Addicts (Debt Junkies)', 'Debt Experienced', 'Mortgagees' and 'Debt Avoiders'. These classifications not only reflect individuals' usage patterns of different debt instruments, but also reveal differences in their financial decisions and behaviours. I treat debt class as a categorical variable, we identify four groups of debt users in our sample (label them 1=Debt Junkies, 2=Debt Experienced, 3=Mortgagees, and 4=Debt Avoiders). A detailed description of the four categories can be found in Appendix A.

### 3.3 Data analysis

**Table 2: Impact of BNPL Providers on Consumer Perceptions**

<b>BNPL Providers</b>	<b>Perceived as debt (Mean)</b>	<b>Perceived as cheaper (Mean)</b>	<b>Perceived as fewer consequences (Mean)</b>	<b>Sample Size</b>
Afterpay	2.30	2.31	2.27	352
Zip	2.33	2.17	2.08	115
Laybuy	2.28	2.48	2.41	178
Other Providers	2.33	2.33	2.33	81

This table presents the average consumer perception score separated by the BNPL provider that respondents identified as having used. Respondents could identify more than one provider.

Table 2 summarises the average consumer perception of BNPL offerings from different service providers. From an average score hovering around 2.3, there is a general consistency in the extent to which consumers perceive different BNPL service providers as being in debt or not. The sample size column shows that Afterpay has the largest subscriber base among the providers surveyed and dominates the BNPL market.

Interestingly, Laybuy users perceive BNPLs as being more affordable compared to Zip users (mean score of 2.482), reflecting the effectiveness of Laybuy's marketing in positioning itself as a cost-effective option. However, Laybuy users have the highest average score for perceived consequences of non-payment, which may mean that despite Laybuy's affordability, consumers are aware of or have experienced stricter penalties or clearer notification of consequences from Laybuy than from other firms. Zip's (Is cheaper) score is relatively low, which may reflect its positioning or product characteristics, which emphasise other benefits over than cost savings.

Overall, these results emphasize the important impact of BNPL service providers' marketing on consumer perceptions, highlighting the relative consistency of each provider's messaging in how it affects consumers' perceptions of the affordability and consequences of their products.

As my dependent variables, the frequency of use of BNPL and the two measures for quality of use of BNPL, are ordinal, with lower values indicating either less use or better use of BNPL (i.e., do not use other debt to repay BNPL or incur fees less frequently), ordered logistic regression models are applied to assess the impact of consumer perceptions on the different dependent variables.

This statistical technique is appropriate for the analysis of ordered dependent variables and is capable of accommodating the proportional odds assumption inherent in such data (Agresti, 2010). The proportional odds model allows for the estimation of odds ratios for the independent variables across the multiple categories of the dependent variables (Long & Freese, 2006). It allows researchers to estimate odds ratios for the independent variables in relation to the different levels of the dependent variable. In other words, it helps to understand how changes in the independent variables influence the odds of moving from one category to another in an ordered dependent variable. This can be valuable for understanding the factors that affect the likelihood of an outcome occurring at different levels within a ranked or ordered response scale.

For example, for hypothesis 1a we will estimate the following regression:

$$Freq\ of\ use_i = \alpha + Is\ debt_i + Controls_i + e_i$$

Hypothesis 1b we will estimate the following regression:

$$Freq\ of\ use_i = \alpha + Is\ cheaper_i + Controls_i + e_i$$

Hypothesis 1c we will estimate the following regression:

$$Freq\ of\ use_i = \alpha + fewer\ consequences_i + Controls_i + e_i$$

## Chapter 4: Empirical Results

### 4.1 Summary Statistics

**Table 3: Summary statistics of usage behaviours and perceptions of BNPL services.**

Variable	Score=1 (%)	Score=2 (%)	Score=3 (%)	Mean
Frequency of use BNPL products	28.51	47.23	24.26	1.96
Borrow to repay BNPLs	56.83	43.17		1.43
Frequency of incurred late penalty	44.78	43.28	11.94	1.67
Perceived as debt	21.84	18.16	60	2.38
Perceived as cheaper	20.57	29.79	49.65	2.29
Perceived as fewer consequences	21.7	30.21	48.09	2.26

This table presents the percentage of respondents who scored either a 1, 2 or 3 for the BNPL use and consumer perception variables, along with the mean score for each variable.

Table 3 presents the summary statistics for the variables across the entire sample. 28.51% of respondents identified that they had used BNPL infrequently, while 47.23% had used it occasionally and 24.26% were frequent users. 43.17 % of users have relied on other forms of debt to repay their BNPL, while 43.28% of users had occasionally incurred fees and 11.94 % had incurred penalty frequently. In terms of perceptions, 60% of users agreed that BNPL is a form of debt, with the other 40% either disagreeing or being uncertain, with a mean score of 2.38. Around 50% of respondents agreed BNPL was cheaper, score 2.29, while 48% agreed BNPL had fewer consequences, mean score of 2.26.

### 4.2 Regression Results

To control for potentially confounding effects from demographic differences, knowledge and capability, or personality traits I conduct ordered logistic regressions where I treat the measures of how BNPL is used as the dependent variable and the different perception variables; whether consumers see BNPL as a form of debt, whether they see it as cheaper than other debt, or whether they believe that it has fewer consequences, as the independent variable. Table 1 presents the results for the three BNPL use variables; frequency of use, using other debt to repay BNPL, and the frequency of late fees, based on consumers perceptions of whether they view BNPL as debt. We measure this based on a question that asked users whether they agreed with the statement that BNPL was a form of debt, respondents were separated into three groups, those who disagreed with the statement, those who were neutral and those who agreed. For each use variable there are three regressions, the base model, which contains all the demographic, employment and living situation, behavioural, knowledge, personality, and income variables, the base model plus debt classes which controls for the consumers use of other debt, and the base model plus debt classes and whether the respondent is a current BNPL user.

I generated three tables based on each of the three perceptual categories. Each table has a total of 9 columns, from left to right, and every three columns contain the results of regression results for one dependent variable for one perception. Based on the original regression model using demographics as control variables (labelled as **Org**), I added the variables **debt class** and whether the respondent is currently using BNPL (**debt\_bnpl**) as control variables and ran logistic regressions for them, which were split across the three columns (labelled as **Org+Debt class** and **Org+Debt class+ Current use of BNPL**, respectively). The inclusion of relevant control variables such as "debt class" can help reduce variable bias. "Debt class" allows for the division of consumers into meaningful subgroups. This provides a nuanced understanding of how different types of consumers (e.g., debt averse vs. debt junkies individuals) interact with BNPL services. Adding these control variables improves the accuracy of the model's predictions. Controlling for these variables allows for more accurate predictions about the likelihood that someone will use BNPL based on their debt level and current usage status, which in turn better identifies the relationship between the relevant independent variable and the outcome variable.

The results in Table 4 show that those who perceive BNPL as being similar to conventional debt are less inclined to utilise BNPL more frequently (columns 1-3). This suggests a cautious approach towards BNPL among those equating it with traditional debt. When people classify BNPL as debt, they typically exercise more caution, as they would with traditional credit lines, to avoid overcommitting financially. I also observe that consumers who see BNPL as debt exhibit a decreased likelihood of using other forms of debts for the purpose of repaying their BNPL obligations. This indicates that perceiving BNPL as debt is associated with more responsible financial behaviour, possibly avoiding further debt accumulation. However, while they are less likely to use other debts to repay their BNPL, consumers perceiving BNPL as debt have a higher likelihood of incurring late penalties (from last three columns). This could indicate a misalignment in understanding the consequences of BNPL or perhaps a disconnect between perception and actual financial management practices. It suggests that even consumers who identify BNPL as a form of debt may still struggle with debt management, as evidenced by a higher incidence of late fees. This points to a potential paradox where the recognition of BNPL as debt does not necessarily equate to effective financial management. It implies that while these consumers acknowledge the debt nature of BNPL, they may underestimate the discipline required for managing such debt, leading to missed payments despite their awareness.

**Table 4: Ordinal regression output (Perceptions of Is debt)**

VARIABLES (Odds ratio)	frequency of use BNPL products			borrow to repay BNPL products			late penalty		
	Org	Debt class	Current use	Org	Debt class	Current use	Org	Debt class	Current use
Is_debt	0.743*** (0.0727)	0.753*** (0.0753)	0.665*** (0.0706)	0.764* (0.109)	0.656*** (0.103)	0.683** (0.107)	1.512** (0.317)	1.283** (0.134)	1.263** (0.133)
Age	1.061 (0.0598)	1.020 (0.0596)	1.029 (0.0602)	1.067 (0.0868)	1.049 (0.0877)	1.056 (0.0902)	0.926 (0.125)	0.887** (0.0489)	0.888** (0.0489)
Gender	1.198 (0.194)	1.301 (0.209)	1.173 (0.197)	0.400*** (0.0983)	0.404*** (0.100)	0.431*** (0.104)	1.512 (0.535)	1.121 (0.173)	1.085 (0.168)
Māori	1.456* (0.306)	1.363 (0.302)	1.404 (0.320)	0.788 (0.228)	0.787 (0.240)	0.780 (0.251)	1.035 (0.392)	0.939 (0.193)	0.947 (0.196)
Nz_euro	2.128*** (0.489)	2.072*** (0.493)	2.059*** (0.510)	0.751 (0.255)	0.750 (0.270)	0.743 (0.283)	0.635 (0.276)	0.974 (0.221)	0.950 (0.216)
Pasifika	1.894** (0.524)	1.807** (0.503)	1.716* (0.551)	0.770 (0.307)	0.883 (0.372)	0.806 (0.356)	1.061 (0.540)	1.162 (0.346)	1.119 (0.334)
Asian	0.739 (0.220)	0.683 (0.206)	0.665 (0.218)	1.027 (0.547)	0.987 (0.530)	0.971 (0.522)	0.449 (0.397)	0.419** (0.144)	0.414** (0.143)
India	2.699** (1.118)	2.574** (1.058)	2.008* (0.780)	0.787 (0.417)	0.626 (0.326)	0.699 (0.367)	0.304 (0.238)	1.026 (0.369)	0.959 (0.344)
Other_ethnicity	0.389** (0.176)	0.403** (0.183)	0.380** (0.168)	1.613 (1.052)	1.696 (1.269)	1.787 (1.360)	1.198 (0.986)	1.544 (0.662)	1.564 (0.639)
Full_time_work	1.704* (0.513)	1.634 (0.490)	1.573 (0.495)	0.977 (0.450)	0.875 (0.421)	0.870 (0.425)	0.911 (0.478)	1.576 (0.525)	1.572 (0.527)
Part_time_work	1.069 (0.306)	1.190 (0.350)	1.040 (0.322)	0.737 (0.332)	0.731 (0.348)	0.745 (0.355)	0.468 (0.286)	1.136 (0.345)	1.106 (0.338)
Studying_full_part	0.786 (0.198)	0.838 (0.202)	0.857 (0.218)	0.717 (0.304)	0.874 (0.361)	0.854 (0.359)	0.602 (0.299)	1.095 (0.318)	1.122 (0.331)
Stay_at_home	2.638** (1.127)	2.776** (1.187)	2.385** (1.055)	0.624 (0.384)	0.603 (0.386)	0.614 (0.389)	1.549 (1.336)	1.546 (0.685)	1.506 (0.662)
Unemployed	3.360** (1.664)	3.421*** (1.624)	2.852** (1.319)	2.192 (1.447)	2.900 (1.935)	3.013 (2.181)	1.990 (1.116)	1.101 (0.482)	1.038 (0.454)
Other_employment	0.852 (0.330)	1.044 (0.401)	1.233 (0.485)	0.478 (0.294)	0.522 (0.355)	0.461 (0.324)	1.011 (0.520)	1.755 (0.710)	1.804 (0.734)
With financial dependents	0.728 (0.168)	0.605** (0.143)	0.656* (0.158)	1.241 (0.434)	0.852 (0.318)	0.820 (0.304)	1.445 (0.634)	0.866 (0.198)	0.892 (0.206)
Live with partner (no children)	1.390 (0.431)	1.467 (0.439)	1.525 (0.480)	1.392 (0.585)	1.629 (0.678)	1.584 (0.671)	0.875 (0.628)	0.942 (0.279)	0.944 (0.284)
Live with partner (and children)	2.492**	2.360**	2.090*	2.567*	3.748**	3.907**	0.625	1.559	1.501

VARIABLES (Odds ratio)	frequency of use BNPL products			borrow to repay BNPL products			late penalty		
	Org	Debt class	Current use	Org	Debt class	Current use	Org	Debt class	Current use
	(0.940)	(0.884)	(0.813)	(1.313)	(2.031)	(2.158)	(0.491)	(0.530)	(0.519)
Live with children	2.055 (1.078)	1.553 (0.810)	1.803 (0.910)	1.366 (0.892)	1.597 (1.080)	1.458 (1.024)	1.027 (1.058)	3.043** (1.600)	3.049** (1.645)
Live with parents/relatives	1.325 (0.401)	1.342 (0.395)	1.149 (0.358)	1.563 (0.661)	1.858 (0.798)	2.116* (0.949)	0.517 (0.370)	1.435 (0.432)	1.400 (0.429)
Live with non-relatives	1.608 (0.515)	1.817* (0.573)	1.793* (0.598)	0.746 (0.351)	1.030 (0.503)	1.049 (0.524)	1.034 (1.038)	1.742 (0.590)	1.722 (0.595)
Prefer not to answer	0.837 (0.502)	0.941 (0.564)	1.182 (0.690)	2.094 (2.112)	3.543 (3.130)	3.405 (3.208)	2.244 (2.869)	3.600* (2.611)	3.804* (2.874)
Financial capability	0.968 (0.0289)	0.982 (0.0292)	1.002 (0.0310)	1.131*** (0.0529)	1.149*** (0.0542)	1.140*** (0.0535)	0.931 (0.0581)	1.017 (0.0309)	1.019 (0.0312)
Debt literacy	0.972 (0.109)	0.957 (0.103)	0.921 (0.0990)	0.708** (0.110)	0.638*** (0.103)	0.645*** (0.106)	0.721 (0.170)	0.830* (0.0910)	0.824* (0.0907)
Debt attitudes	1.172 (0.142)	1.072 (0.134)	1.099 (0.144)	1.515** (0.276)	1.353 (0.265)	1.334 (0.257)	1.001 (0.270)	1.112 (0.145)	1.119 (0.146)
Money management	1.073 (0.135)	1.107 (0.141)	1.017 (0.127)	0.394*** (0.0789)	0.398*** (0.0809)	0.415*** (0.0826)	0.781 (0.201)	1.092 (0.143)	1.076 (0.142)
Materialism value scale	1.315** (0.153)	1.332** (0.154)	1.389*** (0.170)	1.291 (0.223)	1.350* (0.240)	1.306 (0.232)	0.777 (0.204)	1.189 (0.133)	1.194 (0.134)
After_tax_income	1.080* (0.0503)	1.114** (0.0527)	1.104* (0.0571)	0.813*** (0.0618)	0.801*** (0.0672)	0.804*** (0.0655)	0.921 (0.0842)	0.624* (0.151)	0.762 (0.205)
DebtClass (Debt Experienced)		0.411*** (0.0999)	0.959 (0.255)		0.451** (0.155)	0.324*** (0.125)		0.624* (0.151)	0.762 (0.205)
DebtClass (Mortgagees)		0.170*** (0.0475)	0.553* (0.173)		0.109*** (0.0612)	0.0662*** (0.0402)		0.408*** (0.119)	0.541* (0.177)
DebtClass (Debt avoiders)		0.470*** (0.105)	0.665* (0.147)		0.210*** (0.0654)	0.180*** (0.0597)		0.877 (0.205)	0.966 (0.234)
debt_bnpl			6.386*** (1.321)			0.521** (0.142)			1.483** (0.290)
Observations	661	661	661	470	470	470	191	661	661
Pseudo R-squared	0.0740	0.0955	0.161	0.224	0.273	0.282	0.0859	0.0501	0.0533

This table presents the ordinal or logistic regression results for the association between respondents' perception of whether BNPL is debt and BNPL use. Is debt is measured on a three-point scale where 1 is disagree it is debt, 2 is neutral and 3 is agree. Frequency of use is measured on a three-point scale with those who score 0 never having used it, 1 used in infrequently, 2 used it occasionally and 3 used it frequently. Borrow to repay is a binary variable that is 1 if a respondent has used debt to repay their BNPL, and late penalties was measured on a three-point scale with respondents who had never had late fees scored a 1, those with fees once or twice a 2 and those with 3 or more instances of late fees scored a 3. In addition, the analysis controls for demographic factors such as age, gender, and ethnicity, as well as financial factors including employment status, financial dependents, living arrangements, financial capability, debt literacy, attitudes towards debt, money management skills, materialism values, and after-tax income. The 'Debt Class' variables reflect the respondent's experience with debt, distinguishing between those with general debt experience, mortgagees, and debt avoiders. 'debt\_bnpl' is the current BNPL user group. The coefficients are reported as odds ratios. Asterisks denote statistical significance (\*p < 0.1, \*\*p < 0.05, \*\*\*p < 0.01). The numbers in parentheses in the regression tables represent the standard errors of the coefficients.

**Table 5: Ordinal regression output (Perceptions of Is cheaper)**

	frequency of use BNPL products			borrow to repay BNPL products			Late Penalty		
	Org	Debt class	Current use	Org	Debt class	Current Use	Org	Debt class	Current use
Is_cheaper	1.750*** (0.187)	1.646*** (0.176)	1.495*** (0.165)	0.762* (0.117)	0.677** (0.110)	0.708** (0.117)	1.295 (0.269)	1.304 (0.263)	1.284 (0.266)
Age	1.017 (0.0582)	0.984 (0.0581)	0.989 (0.0587)	1.067 (0.0867)	1.049 (0.0881)	1.057 (0.0912)	0.961 (0.124)	0.941 (0.119)	0.930 (0.118)
Gender	1.147 (0.187)	1.236 (0.199)	1.118 (0.187)	0.405*** (0.101)	0.413*** (0.104)	0.442*** (0.108)	1.448 (0.517)	1.419 (0.469)	1.347 (0.455)
Māori	1.539** (0.321)	1.445* (0.318)	1.480* (0.337)	0.780 (0.226)	0.786 (0.239)	0.780 (0.248)	1.015 (0.394)	1.093 (0.467)	1.068 (0.464)
Nz_euro	2.001*** (0.463)	1.957*** (0.466)	1.942*** (0.481)	0.747 (0.255)	0.746 (0.268)	0.732 (0.279)	0.625 (0.279)	0.715 (0.338)	0.721 (0.339)
Pasifika	1.807** (0.513)	1.762** (0.503)	1.714* (0.559)	0.762 (0.310)	0.863 (0.368)	0.781 (0.349)	1.125 (0.586)	1.260 (0.623)	1.255 (0.614)
Asian	0.758 (0.238)	0.698 (0.223)	0.675 (0.230)	1.039 (0.558)	1.027 (0.547)	1.007 (0.538)	0.455 (0.394)	0.681 (0.513)	0.686 (0.512)
India	2.384** (0.978)	2.285** (0.936)	1.850 (0.716)	0.787 (0.409)	0.639 (0.325)	0.713 (0.369)	0.297 (0.229)	0.289* (0.218)	0.269* (0.206)
Other_ethnicity	0.324** (0.148)	0.329** (0.150)	0.318** (0.145)	1.756 (1.129)	1.927 (1.482)	2.003 (1.569)	0.946 (0.778)	1.513 (1.388)	1.531 (1.436)
Full_time_work	1.748* (0.531)	1.663* (0.504)	1.560 (0.502)	0.902 (0.422)	0.812 (0.394)	0.816 (0.403)	0.931 (0.491)	0.838 (0.390)	0.871 (0.415)
Part_time_work	1.149 (0.327)	1.250 (0.364)	1.124 (0.344)	0.753 (0.346)	0.780 (0.374)	0.794 (0.382)	0.424 (0.259)	0.490 (0.293)	0.518 (0.313)
Studying_full_part	0.756 (0.189)	0.806 (0.195)	0.804 (0.201)	0.675 (0.294)	0.815 (0.347)	0.813 (0.352)	0.573 (0.277)	0.573 (0.284)	0.585 (0.291)
Stay_at_home	2.208* (0.955)	2.310* (0.992)	1.987 (0.894)	0.643 (0.395)	0.647 (0.412)	0.655 (0.419)	1.537 (1.355)	1.390 (1.115)	1.410 (1.135)
Unemployed	3.141** (1.445)	3.125*** (1.373)	2.621** (1.206)	2.151 (1.402)	2.782 (1.797)	2.909 (2.044)	2.068 (1.176)	2.821* (1.580)	2.967* (1.755)
Other_employment	0.881 (0.341)	1.065 (0.412)	1.187 (0.485)	0.423 (0.250)	0.422 (0.290)	0.375 (0.271)	0.963 (0.482)	1.183 (0.729)	1.246 (0.765)
With financial dependents	0.849 (0.195)	0.719 (0.169)	0.782 (0.188)	1.276 (0.459)	0.906 (0.357)	0.872 (0.337)	1.286 (0.532)	0.995 (0.431)	1.037 (0.449)
Live with partner (no children)	1.473 (0.463)	1.515 (0.457)	1.537 (0.480)	1.272 (0.538)	1.415 (0.597)	1.386 (0.598)	1.076 (0.761)	1.775 (1.180)	1.773 (1.223)
Live with partner (and children)	2.148** (0.795)	2.023* (0.745)	1.794 (0.684)	2.351* (1.206)	3.165** (1.711)	3.344** (1.842)	0.802 (0.606)	1.645 (1.218)	1.611 (1.210)
Live with children	1.740 (0.908)	1.352 (0.713)	1.575 (0.795)	1.446 (0.941)	1.716 (1.149)	1.539 (1.076)	1.164 (1.196)	1.714 (1.854)	1.783 (1.947)

	frequency of use BNPL products			borrow to repay BNPL products			Late Penalty		
	Org	Debt class	Current use	Org	Debt class	Current Use	Org	Debt class	Current use
Live with parents/relatives	1.232 (0.366)	1.260 (0.362)	1.067 (0.320)	1.401 (0.598)	1.551 (0.673)	1.798 (0.813)	0.678 (0.463)	0.950 (0.624)	0.906 (0.609)
Live with non-relatives	1.420 (0.439)	1.599 (0.492)	1.527 (0.485)	0.661 (0.308)	0.867 (0.416)	0.908 (0.448)	1.425 (1.357)	2.193 (1.906)	2.155 (1.900)
Prefer not to answer	0.636 (0.366)	0.716 (0.416)	0.872 (0.502)	2.081 (2.127)	3.368 (3.032)	3.187 (2.958)	2.465 (3.561)	4.916 (7.159)	5.223 (7.373)
Financial capability	0.964 (0.0290)	0.981 (0.0295)	0.999 (0.0309)	1.129*** (0.0519)	1.147*** (0.0535)	1.136*** (0.0528)	0.915 (0.0556)	0.902* (0.0548)	0.910 (0.0586)
Debt literacy	0.893 (0.0975)	0.884 (0.0959)	0.850 (0.0911)	0.695** (0.106)	0.626*** (0.101)	0.636*** (0.104)	0.764 (0.173)	0.810 (0.172)	0.801 (0.171)
Debt attitudes	1.109 (0.135)	1.039 (0.129)	1.087 (0.138)	1.607*** (0.296)	1.476* (0.295)	1.446* (0.282)	0.983 (0.282)	0.918 (0.251)	0.923 (0.257)
Money management	0.953 (0.122)	0.985 (0.127)	0.918 (0.116)	0.405*** (0.0816)	0.416*** (0.0863)	0.431*** (0.0887)	0.825 (0.212)	0.823 (0.220)	0.802 (0.214)
Materialism value scale	1.196 (0.142)	1.225* (0.144)	1.261* (0.156)	1.299 (0.227)	1.355* (0.240)	1.311 (0.232)	0.788 (0.205)	0.895 (0.222)	0.933 (0.238)
After_tax_income	1.041 (0.0504)	1.078 (0.0532)	1.065 (0.0577)	0.812*** (0.0618)	0.802*** (0.0669)	0.805*** (0.0657)	0.913 (0.0813)	0.902 (0.0751)	0.906 (0.0757)
DebtClass (Debt Experienced)		0.436*** (0.104)	0.928 (0.236)		0.447** (0.156)	0.319*** (0.122)		0.369** (0.168)	0.424* (0.214)
DebtClass (Mortgagees)		0.193*** (0.0550)	0.540** (0.168)		0.102*** (0.0584)	0.0621*** (0.0375)		0.163** (0.134)	0.209* (0.186)
DebtClass (Debt avoiders)		0.512*** (0.111)	0.707 (0.153)		0.233*** (0.0723)	0.200*** (0.0641)		0.340*** (0.134)	0.363*** (0.151)
debt_bnpl			5.323*** (1.053)			0.510** (0.139)			1.361 (0.533)
Observations	661	661	661	470	470	470	191	191	191
Pseudo R-squared	0.0887	0.106	0.160	0.223	0.269	0.279	0.0789	0.0956	0.0972

This table presents the ordinal or logistic regression results for the association between respondents' perception of whether BNPL is cheaper and BNPL use. Is cheaper is measured on a three-point scale where 1 is disagree it is debt, 2 is neutral and 3 is agree. Frequency of use is measured on a three-point scale with those who score 0 never having used it, 1 used in infrequently, 2 used it occasionally and 3 used it frequently. Borrow to repay is a binary variable that is 1 if a respondent has used debt to repay their BNPL, and late penalties was measured on a three-point scale with respondents who had never had late fees scored a 1, those with fees once or twice a 2 and those with 3 or more instances of late fees scored a 3. In addition, the analysis controls for demographic factors such as age, gender, and ethnicity, as well as financial factors including employment status, financial dependents, living arrangements, financial capability, debt literacy, attitudes towards debt, money management skills, materialism values, and after-tax income. The 'Debt Class' variables reflect the respondent's experience with debt, distinguishing between those with general debt experience, mortgagees, and debt avoiders. 'debt\_bnpl' is the current BNPL user group. The coefficients are reported as odds ratios. Asterisks denote statistical significance (\*p < 0.1, \*\*p < 0.05, \*\*\*p < 0.01). The numbers in parentheses in the regression tables represent the standard errors of the coefficients.

The findings of the ordinal logistic regression (See Table 5) demonstrate significant findings related to the percept BNPL as cheaper (Is cheaper) in three different contexts: frequency of using BNPL products, borrowing to repay BNPL products, and incurring late penalties.

From left three columns, those who regard BNPL as a more cost-effective option compared to other credit products also exhibit a higher likelihood of utilising BNPL more frequently. This emphasises the significance of cost perception in the relationship with frequency of BNPL utilisation (significant positive relationship). Conversely, while these respondents were more likely to use BNPL more often, they generally used it better. There was a significant negative relationship indicating that those who perceived BNPL as cheaper were 23.8% less likely to use other forms of debt to repay BNPL instalments (from middle three columns), while we see insignificant relationships between the cost perception and the likelihood of incurring late fees more frequently. The finding that those seeing it as cheaper are using BNPL better is somewhat contrary to expectation, as we would expect that in encouraging greater use consumers may overstretch themselves resulting in either needing to borrow to repay their BNPL or incurring late penalties. This doesn't appear to be the case and may indicate that those viewing it as cheaper may be substituting other debts which may be why the higher use of BNPL is not generating problems associated with over-indebtedness.

**Table 6: ordinal regression output (Perceptions of fewer consequences)**

	frequency of use BNPL products			borrow to repay BNPL products			late penalty		
	Org	Debt class	Current use	Org	Debt class	Current Use	Org	Debt class	Current use
Fewer_concequences	1.512** (0.317)	1.546*** (0.160)	1.491*** (0.157)	1.295 (0.269)	0.891 (0.142)	0.907 (0.146)	1.225 (0.311)	1.273 (0.305)	1.239 (0.304)
Age	1.063 (0.0602)	1.021 (0.0595)	1.020 (0.0594)	1.048 (0.0841)	1.022 (0.0848)	1.035 (0.0881)	0.975 (0.127)	0.956 (0.121)	0.944 (0.120)
Gender	1.157 (0.187)	1.246 (0.200)	1.121 (0.188)	0.400*** (0.0992)	0.401*** (0.100)	0.433*** (0.106)	1.354 (0.497)	1.327 (0.461)	1.274 (0.446)
Māori	1.482* (0.309)	1.395 (0.306)	1.451 (0.328)	0.795 (0.225)	0.797 (0.239)	0.788 (0.248)	1.011 (0.389)	1.105 (0.472)	1.080 (0.469)
Nz_euro	2.085*** (0.484)	2.047*** (0.489)	2.021*** (0.497)	0.737 (0.246)	0.722 (0.256)	0.713 (0.268)	0.628 (0.275)	0.723 (0.335)	0.728 (0.336)
Pasifika	1.868** (0.504)	1.805** (0.488)	1.745* (0.537)	0.763 (0.302)	0.863 (0.364)	0.778 (0.345)	1.147 (0.604)	1.274 (0.625)	1.271 (0.618)
Asian	0.882 (0.272)	0.797 (0.248)	0.769 (0.253)	1.043 (0.550)	1.011 (0.552)	0.990 (0.538)	0.448 (0.395)	0.657 (0.510)	0.666 (0.512)
India	2.633** (1.050)	2.484** (0.992)	1.970* (0.736)	0.778 (0.408)	0.616 (0.319)	0.693 (0.364)	0.318 (0.236)	0.309 (0.223)	0.290* (0.212)
Other_ethnicity	0.357** (0.170)	0.357** (0.169)	0.337** (0.152)	1.608 (1.020)	1.695 (1.257)	1.785 (1.341)	0.988 (0.802)	1.600 (1.440)	1.625 (1.491)
Full_time_work	1.591 (0.496)	1.526 (0.469)	1.445 (0.449)	0.944 (0.434)	0.851 (0.405)	0.846 (0.409)	0.889 (0.456)	0.799 (0.363)	0.833 (0.386)
Part_time_work	1.134 (0.329)	1.234 (0.360)	1.096 (0.327)	0.762 (0.344)	0.772 (0.364)	0.787 (0.372)	0.410 (0.246)	0.484 (0.279)	0.511 (0.298)
Studying_full_part	0.753 (0.189)	0.815 (0.197)	0.812 (0.200)	0.691 (0.297)	0.822 (0.348)	0.821 (0.354)	0.629 (0.325)	0.661 (0.351)	0.666 (0.352)
Stay_at_home	2.478** (1.097)	2.588** (1.127)	2.169* (0.946)	0.609 (0.372)	0.587 (0.371)	0.602 (0.379)	1.660 (1.427)	1.510 (1.159)	1.530 (1.178)
Unemployed	3.324** (1.706)	3.329** (1.599)	2.765** (1.276)	2.097 (1.330)	2.574 (1.633)	2.725 (1.871)	2.092 (1.111)	2.860** (1.511)	2.999** (1.673)
Other_employment	0.795 (0.319)	0.975 (0.382)	1.103 (0.444)	0.465 (0.279)	0.490 (0.332)	0.430 (0.300)	1.059 (0.544)	1.341 (0.847)	1.391 (0.867)
With financial dependents	0.795 (0.180)	0.666* (0.155)	0.742 (0.180)	1.316 (0.470)	0.978 (0.374)	0.927 (0.350)	1.207 (0.495)	0.934 (0.398)	0.975 (0.420)
Live with partner (no children)	1.365 (0.419)	1.429 (0.426)	1.474 (0.450)	1.320 (0.555)	1.459 (0.614)	1.431 (0.618)	1.002 (0.698)	1.680 (1.109)	1.679 (1.144)
Live with partner (and children)	2.087** (0.767)	1.980* (0.730)	1.729 (0.656)	2.295 (1.177)	2.964** (1.608)	3.172** (1.749)	0.839 (0.637)	1.744 (1.295)	1.698 (1.278)

	frequency of use BNPL products			borrow to repay BNPL products			late penalty		
	Org	Debt class	Current use	Org	Debt class	Current Use	Org	Debt class	Current use
Live with children	1.670 (0.858)	1.284 (0.658)	1.502 (0.725)	1.381 (0.895)	1.601 (1.074)	1.445 (1.014)	1.112 (1.151)	1.568 (1.704)	1.644 (1.805)
Live with parents/relatives	1.123 (0.330)	1.148 (0.329)	0.968 (0.288)	1.432 (0.609)	1.597 (0.700)	1.874 (0.856)	0.644 (0.438)	0.905 (0.592)	0.869 (0.578)
Live with non-relatives	1.265 (0.392)	1.443 (0.446)	1.371 (0.434)	0.654 (0.303)	0.818 (0.393)	0.859 (0.423)	1.511 (1.482)	2.420 (2.172)	2.365 (2.145)
Prefer not to answer	0.576 (0.349)	0.660 (0.393)	0.798 (0.458)	1.894 (1.888)	2.845 (2.519)	2.757 (2.556)	2.569 (3.613)	5.189 (7.331)	5.504 (7.561)
Financial capability	0.964 (0.0289)	0.980 (0.0296)	0.998 (0.0310)	1.127** (0.0527)	1.147*** (0.0542)	1.136*** (0.0536)	0.919 (0.0555)	0.906* (0.0542)	0.914 (0.0581)
Debt literacy	0.974 (0.108)	0.948 (0.102)	0.900 (0.0961)	0.679** (0.104)	0.609*** (0.0977)	0.620*** (0.102)	0.780 (0.177)	0.821 (0.176)	0.812 (0.175)
Debt attitudes	1.159 (0.143)	1.073 (0.137)	1.113 (0.145)	1.568** (0.286)	1.444* (0.281)	1.414* (0.270)	0.962 (0.276)	0.889 (0.243)	0.896 (0.251)
Money management	1.007 (0.126)	1.041 (0.133)	0.954 (0.120)	0.386*** (0.0770)	0.387*** (0.0788)	0.406*** (0.0815)	0.880 (0.213)	0.873 (0.219)	0.851 (0.214)
Materialism value scale	1.229* (0.144)	1.250* (0.146)	1.284** (0.157)	1.271 (0.223)	1.312 (0.234)	1.271 (0.228)	0.805 (0.204)	0.908 (0.225)	0.947 (0.243)
After_tax_income	1.053 (0.0503)	1.090* (0.0526)	1.073 (0.0566)	0.809*** (0.0618)	0.796*** (0.0669)	0.801*** (0.0651)	0.923 (0.0817)	0.914 (0.0749)	0.918 (0.0753)
DebtClass (Debt Experienced)		0.449*** (0.108)	0.974 (0.250)		0.462** (0.159)	0.321*** (0.121)		0.388** (0.176)	0.442* (0.219)
DebtClass (Mortgagees)		0.186*** (0.0524)	0.546* (0.171)		0.120*** (0.0667)	0.0685*** (0.0407)		0.152** (0.120)	0.193** (0.166)
DebtClass (Debt avoiders)		0.504*** (0.109)	0.707 (0.153)		0.248*** (0.0748)	0.207*** (0.0656)		0.332*** (0.132)	0.354** (0.149)
debt_bnpl			5.599*** (1.116)			0.484*** (0.130)			1.344 (0.535)
Observations	661	661	661	470	470	470	191	191	191
Pseudo R-squared	0.0856	0.103	0.161	0.219	0.261	0.273	0.0775	0.0948	0.0962

This table presents the ordinal or logistic regression results for the association between respondents' perception of whether BNPL has fewer consequences and BNPL use. Fewer consequences are measured on a three-point scale where 1 is disagree it is debt, 2 is neutral and 3 is agree. Frequency of use is measured on a three-point scale with those who score 0 never having used it, 1 used infrequently, 2 used it occasionally and 3 used it frequently. Borrow to repay is a binary variable that is 1 if a respondent has used debt to repay their BNPL, and late penalties was measured on a three-point scale with respondents who had never had late fees scored a 1, those with fees once or twice a 2 and those with 3 or more instances of late fees scored a 3. In addition, the analysis controls for demographic factors such as age, gender, and ethnicity, as well as financial factors including employment status, financial dependents, living arrangements, financial capability, debt literacy, attitudes towards debt, money management skills, materialism values, and after-tax income. The 'Debt Class' variables reflect the respondent's experience with debt, distinguishing between those with general debt experience, mortgagees, and debt avoiders. 'debt\_bnpl' is the current BNPL user group. The coefficients are reported as odds ratios. Asterisks denote statistical significance (\*p < 0.1, \*\*p < 0.05, \*\*\*p < 0.01). The numbers in parentheses in the regression tables represent the standard errors of the coefficients.



I also run an Ordinal Logistic regression on perceptions that BNPL has fewer consequences than other debt products. The findings of the ordinal logistic regression (See Table 6) demonstrate significant findings related to the perceptions of fewer consequences and their impact on the use of BNPL services.

Those who perceive fewer consequences of failing to fulfil their BNPL arrangement obligations are also more likely to frequently use BNPL services (first three columns from left). This again supports the prior expectation. This is particularly concerning as BNPL providers tend to emphasise BNPL as having fewer consequences than other debts, although this is not strictly accurate. The misleading messaging can influence consumers' perceptions and lead them to believe that BNPL is a low risk borrowing option. Additionally, some respondents might not be aware of the impact of the accumulation of late fees, which could also contribute to the perception that BNPL is less risky.

With regards to the control variables I employ, I observe that the several utilisation patterns of BNPL are consistently influenced across several models. Notably, women respondents are much less likely to use other forms of debt for BNPL repayments, indicating a potential gender difference in financial decision-making. Different ethnic groups also displayed varying tendencies in BNPL usage, with Māori, New Zealand European, Pasifika, and Indian respondents being notably more likely to use BNPL frequently. Full-time workers, the unemployed and respondents who stay at home showed a higher propensity to use BNPL. Individuals who are employed on a full-time basis typically have a consistent monthly income, which may contribute to their increased confidence in utilising BNPL services. Yet there is an inclination towards BNPL among those who identify as unemployed. Unlike those in full-time employment, these individuals may encounter challenges such as irregular monthly income or temporary financial difficulties.

Additionally, those living with a partner and children were more inclined to use BNPL frequently, as well as higher possibility of use other debt to repay settlements, which might reflect this group's greater financial needs. This group often have greater financial responsibilities (may make larger and more frequent purchases), such as mortgage or rent payments, childcare expenses, education costs, etc. Meanwhile, BNPL products could effectively manage immediate cash flow requirements, fulfil their daily expenditures, as well as spreading out the cost. Also, there is a possibility that household users occasionally find that they need alternative sources of financing to cover BNPL's obligations, especially when facing unexpected or larger expenses related to daily family life.

Interestingly, improved financial capability is related to greater likelihood of additional borrowing to repay BNPL, although ideally more financially capable individuals would be better able to manage

debt repayments. However, overconfidence can sometimes lead to an underestimation of financial commitments and consequences, making it more likely that they will need to borrow additionally to repay their BNPL. In addition, those who are more tolerant of debt also more likely to need to use other debt to repay BNPL more often. However, better debt knowledge and money management skills are also associated with decreased likelihood of additional borrowing to repay BNPL. Respondents with greater debt knowledge and financial management skills appear to be better able to manage their repayment commitments, meaning they are less likely to need to borrow to repay their BNPL.

Individuals with higher materialism values also show they are likely to engage in BNPL transactions. Moreover, higher after-tax income was associated with a reduced tendency to borrow for BNPL repayments. Put simply, this group with higher incomes might take advantages of their surplus income to cover their expenses, including BNPL payments and might be better positioned to manage their finances without resorting to additional debt.

#### **4.3 Debt class and current use of BNPL**

Controlling for other debt use by respondents showed in the base case, the debt junkies' category is more likely to use BNPL frequently, show a higher risk of incurring late penalties, as well as more likely borrow for BNPL repayments, which is corresponding to their adoption of various debts, present-oriented impulsivity, and poor money management ability.

Secondly, debt experienced, mortgagees and debt avoiders' groups are less likely to use BNPL products, as well as borrow for repayment and incurred late fees. Among these groups, debt avoiders show strongest decrease for BNPL usage in all three aspects, followed by debt experienced, then mortgagees. Interestingly, the reasons behind why having experience in debt among them reduces the frequency of BNPL use are worth exploring further. The experience of these respondents in managing debt could correspond to better financial planning, which may reduce the need to take on additional debt to repay BNPL. At the same time, proficiency in managing various debt instruments suggests that their repayments may be more organised and timelier. As for mortgagees, this group often has structured financial commitments and may be less inclined or have less income to work with BNPL, which may increase the complexity of their debt portfolio.

Finally, debt avoiders may minimise their use of BNPL because these individuals take a conservative approach to debt and prioritise financial security over immediate gratification. Their aversion to debt means that they might only use BNPL to pay without borrowing further, so, with the lowest risk of incurring late fee penalties.

Interestingly, current BNPL users use BNPL more than five times as often as former users. While current users are half as likely to use other forms of debt to repay their BNPL payments. The reason of why current BNPL users less likely to borrow to repay the settlements needs further research.

**Table 7: Impact of Financial Education on Consumer Perceptions of BNPL products**

<b>Test Category</b>		<b>Obs</b>	<b>Mean</b>	<b>Difference</b>
Perception of "Is debt"	Fin Ed = 0	164	2.530	-0.194***
	Fin Ed = 1	541	2.336	
Perception of "Is cheaper"	Fin Ed = 0	164	2.396	-0.137**
	Fin Ed = 1	541	2.259	
Perception of "Fewer consequences"	Fin Ed = 0	164	2.25	0.018
	Fin Ed = 1	541	2.268	

This table presents statistical difference in the average score for the three consumer perception variables, is debt, is cheaper and fewer consequences between those respondents with (Fin Ed = 1) and without a financial education (Fin Ed = 0). A t-test was conducted to assess the significance of the statistical differences. Difference is calculated as with education minus without. Asterisks denote statistical significance (\*p < 0.1, \*\*p < 0.05, \*\*\*p < 0.01).

The table 7 presents result from a two-sample t-test conducted to assess the impact of financial education on consumer perceptions regarding BNPL products. Three perception categories were tested: the perception of BNPL as debt, as being cheaper, and having fewer consequences.

Results show that there is a statistically significant difference between consumers with two groups (0= financial education, 1=with financial education) in terms of different perceptions. Consumers without financial education are more likely to perceive BNPL as debt and cheaper than consumers with financial education (p=0.0040 for Is debt, p=0.0248 for Is cheaper). This result appears to override the traditional benefits that financial education is presumed to provide. The expectation is that educated consumers will recognize the potential costs and risks associated with BNPL services, such as hidden fees, the negative impact of different debt products.

**Table 8: Ordinal regression analysis of consumer perceptions and financial education**

<b>VARIABLES</b>	<b>Is debt</b>	<b>Is cheaper</b>	<b>Fewer consequences</b>
Financial ed	0.652* (0.147)	0.626** (0.125)	0.784 (0.157)
Age	1.127* (0.0720)	1.092 (0.0602)	0.900* (0.0488)
Gender	1.145 (0.210)	1.126 (0.193)	1.086 (0.168)
Māori	0.780 (0.170)	0.826 (0.178)	0.929 (0.193)
Nz_euro	1.082 (0.248)	1.265 (0.305)	0.939 (0.217)
Pasifika	0.761 (0.215)	1.299 (0.401)	1.115 (0.339)
Asian	0.840 (0.263)	0.802 (0.252)	0.403*** (0.139)
India	0.841 (0.281)	1.428 (0.513)	0.904 (0.328)
Other ethnicity	1.465 (0.771)	1.920* (0.698)	1.561 (0.641)
Full_time_work	1.534 (0.476)	0.788 (0.234)	1.634 (0.546)
Part_time_work	0.812 (0.246)	0.881 (0.235)	1.071 (0.330)
Studing_full_part	1.649 (0.508)	1.194 (0.323)	1.187 (0.349)
Stay-at-home	1.704 (0.824)	2.320* (1.102)	1.528 (0.660)
Unemployed	1.687 (0.730)	1.239 (0.564)	1.050 (0.455)
Other employment	1.310 (0.575)	1.207 (0.489)	1.830 (0.761)
With financial dependents	0.560** (0.137)	0.650* (0.157)	0.866 (0.203)
Live with partner (no children)	1.242 (0.422)	0.689 (0.212)	0.927 (0.277)
Live with partner (and children)	1.760 (0.665)	1.166 (0.420)	1.522 (0.527)
Live with children	1.340 (0.695)	1.783 (0.936)	3.070** (1.676)
Live with parents/relatives	1.670 (0.570)	0.749 (0.229)	1.470 (0.448)
Live with non-relatives	3.015*** (1.205)	0.848 (0.288)	1.846* (0.632)
Prefer not to answer	2.823* (1.728)	1.416 (0.799)	3.916* (2.808)
Financial capability	1.041 (0.0359)	1.036 (0.0334)	1.028 (0.0320)
Debt literacy	1.395***	1.204*	0.832*

<b>VARIABLES</b>	<b>Is debt</b>	<b>Is cheaper</b>	<b>Fewer consequences</b>
	(0.168)	(0.128)	(0.0932)
Debt attitudes	0.767*	1.484***	1.110
	(0.115)	(0.197)	(0.144)
Money management	1.274*	1.339**	1.095
	(0.183)	(0.180)	(0.145)
Materialism value scale	1.454***	1.377***	1.240*
	(0.184)	(0.153)	(0.142)
After_tax_income	1.174***	1.113**	1.050
	(0.0586)	(0.0526)	(0.0504)
Debt Class (Debt experienced)	1.154	1.198	0.781
	(0.324)	(0.349)	(0.210)
Debt Class (Mortgagees)	1.729	0.650	0.576*
	(0.608)	(0.213)	(0.186)
Debt Class (Debt Avoiders)	0.735	1.060	0.966
	(0.174)	(0.271)	(0.234)
debt_bnpl	1.406*	2.189***	1.530**
	(0.274)	(0.434)	(0.297)
Observations	661	661	661
Pseudo R-squared	0.105	0,0876	0.0505

This table presents the ordinal regression results for the association between financial education and a respondent's perceptions BNPL. Is debt, is cheaper and fewer consequences are measured on a three-point scale where 1 is disagree it is debt, 2 is neutral and 3 is agree. Financial ed is a dummy variable that equals one if the respondent has had financial education. In addition, the analysis controls for demographic factors such as age, gender, and ethnicity, as well as financial factors including employment status, financial dependents, living arrangements, financial capability, debt literacy, attitudes towards debt, money management skills, materialism values, and after-tax income. The 'Debt Class' variables reflect the respondent's experience with debt, distinguishing between those with general debt experience, mortgagees, and debt avoiders. 'debt\_bnpl' is the current BNPL user group. The coefficients are reported as odds ratios. Asterisks denote statistical significance (\*p < 0.1, \*\*p < 0.05, \*\*\*p < 0.01). The numbers in parentheses in the regression tables represent the standard errors of the coefficients.

The regression analysis further elucidates these relationships, showing that financial education is positively associated with the perception of BNPL as debt and as a cheaper option, with coefficients of 0.652 (p<0.1) and 0.626 (p<0.05) respectively. This suggests that financial education influences the likelihood of recognizing the debt nature of BNPL and its perceived affordability.

The combined findings suggest that financial education does play a role in shaping consumer perceptions of BNPL products, but perhaps not in the anticipated direction. Although financial education should theoretically mitigate this misperception, BNPL providers often promote their services as a convenient and zero-interest financial option, emphasising instant gratification and downplaying the nature and long-term consequences of debt products, which may lead consumers to believe that BNPL services are beneficial and optimal.

This suggests that current financial education may not be sufficient to guard against the persuasive techniques used in the marketing of BNPL products or the cognitive biases exploited by these techniques. So, even financially educated individuals may find themselves swayed by the lure of the

immediate purchase possibilities offered by BNPL plans, resulting in perceptions contrary to what their financial literacy would suggest.

## Chapter 5: Conclusion

The study reveals the relationship between consumer perceptions of BNPL products and various BNPL usage experiences. First, the perception of debt significantly influences consumer behaviours. Those who perceived BNPL as debt are less likely to use other debt to repay BNPL settlements, and surprisingly, are more likely to incur late fees. This suggests a complex relationship between perceptions and financial management practices and may indicate a gap in the understanding of the impact of BNPL, or a bias between perceptions and actual financial behaviours.

Secondly, the perception of BNPL as a cheaper alternative drives more frequent use is reflecting the impact of cost perceptions on consumer decision-making. Interestingly, the perception of cheaper is associated with a decreased likelihood of using other debt to repay BNPL, suggesting that these respondents are taking a more conservative approach to their finances.

Furthermore, the perception that defaulting on BNPL repayments with fewer consequences leads to more frequent use, highlighting the impact of perceived risk on consumer behaviours. Given that BNPL providers often downplay potential negative outcomes through marketing campaigns, it is concerning that this could lead to consumers making poor decisions.

Demographic factors also play a vital role in the use of BNPL. It is worth noting that gender differences emerge, with women less likely to use other forms of debt to repay BNPL. Different ethnic groups in New Zealand show different tendencies to use BNPL, with certain groups such as Māori, European New Zealanders, Pacific Islanders, and Indian respondents more likely to use it frequently. Employment status, household composition and financial capability further influence BNPL usage patterns, reflecting the different financial needs and management strategies of different demographic groups. The association between financial education and these perceptions is also significant: Without financial education group are more likely to view BNPL as debt and cheaper. This challenges the conventional recognitions about the benefits of financial education and suggests the need for more effective financial literacy programmers to counteract the marketing tactics of BNPL providers, or more stringent regulation of marketing in BNPL industry.

Current BNPL users exhibit higher frequency of use, as well as incidence of late penalty and a reduced tendency to use other forms of debt repayment. This unusual finding deserves more exploration and research in the future.

The study demonstrates the universality and relative consistency of BNPL providers' impact on consumer perceptions. The fact that different providers shape multiple consumer perceptions of BNPL is of general significance, indicating that these perceptions do indeed play a critical role in how consumers approach BNPL products. In short, this study reveals that perceptions are associated with BNPL usage pattern. Consumer perceptions are largely shaped by industry marketing of BNPL instead of individuals' financial education, which highlights the strong influence of the marketing of the BNPL industry. It emphasizes the need for a deeper understanding of consumer behaviours, improved financial literacy and regulatory measures to ensure responsible use of BNPL. These findings contribute to a broader discussion of emerging financial products and their impact on consumer financial behaviours.

Finally, the findings also raise concerns for further research and highlight the need for regulatory review.

Firstly, the role of financial education in shaping consumers' perceptions of BNPL services appears to be less significant than expected, which suggests that financial literacy makes a difference in the practice of using BNPL products. Future research should explore the development and implementation of education on digital and alternative finance to assess the impact of financial education on consumers' understanding and management of BNPL products.

Secondly, differences in BNPL use across gender and ethnicity provide another avenue for research. Why do certain demographic groups prefer BNPL, and how do factors such as employment status and family composition influence this trend? Further research could provide granular analyses of these demographic differences and contribute to a deeper understanding of socioeconomic factors driving BNPL adoption.

Thirdly, the longitudinal impact of BNPL services on consumer debt levels and credit scores is not yet fully understood. Future research should conduct a longitudinal study that tracks the financial trajectories of BNPL users and compares them to those of users of traditional credit products. This will provide valuable insights into the potential long-term financial impact of BNPL services on individuals and the wider economy.

To sum up, despite the convenience and immediate benefits offered by BNPL services, their long-term impact on consumer financial health and the wider credit market remains to be fully understood. It is through continued research and proactive regulatory efforts that we can ensure the sustainable integration of BNPL services into the consumer credit market without compromising financial stability and consumer well-being.

## **Appendix A**

The specific explanations of four categories of debt class:

Debt Junkies have a high use of various sorts of debt, with the exception of mortgages, which are below average. They are at great danger of becoming over-indebted, especially with large levels of unsecured debt spread over many credit contracts. They have somewhat above-average financial capacity but poor money management abilities due to heightened impulsivity, consumerism, and present orientation.


Debt Experienced is a group avoid credit cards but utilise other types of debt in the same way as the entire sample,

except for a reduced likelihood of student loans. Their behavioural characteristics, such as impulsivity and consumerism, are consistent with the entire sample.

Mortgagees are the most likely to have mortgages, all have credit cards, and, except for vehicle loans, use less consumer debt. This group have higher-than-average monthly repayments, as well as superior financial capabilities and debt tolerance, but poor money management skills. Mortgagees are also less impulsive and materialistic but have a stronger present orientation.

Debt Avoiders are more likely to be women and NZ European or Pasifika and are less likely to be Mori. They have the lowest reported income, are frequently students or part-time workers, and have extremely modest monthly repayments. This group performs best in terms of money management and debt literacy, with the worst debt tolerance, impulsivity, and present orientation, indicating a conservative approach to debt.

# Appendix B



**Auckland University of Technology Ethics Committee (AUTEC)**

Auckland University of Technology  
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5 April 2022  
Aaron Gilbert  
Faculty of Business Economics and Law

Dear Aaron

Re Ethics Application: **22/82 Buy Now Pay Later: Young Adults and Problem Debt**

Thank you for providing evidence as requested, which satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC).

Your ethics application has been approved for three years until 5 April 2025.

**Standard Conditions of Approval**

1. The research is to be undertaken in accordance with the [Auckland University of Technology Code of Conduct for Research](#) and as approved by AUTEC in this application.
2. A progress report is due annually on the anniversary of the approval date, using the EA2 form.
3. A final report is due at the expiration of the approval period, or, upon completion of project, using the EA3 form.
4. Any amendments to the project must be approved by AUTEC prior to being implemented. Amendments can be requested using the EA2 form.
5. Any serious or unexpected adverse events must be reported to AUTEC Secretariat as a matter of priority.
6. Any unforeseen events that might affect continued ethical acceptability of the project should also be reported to the AUTEC Secretariat as a matter of priority.
7. It is your responsibility to ensure that the spelling and grammar of documents being provided to participants or external organisations is of a high standard and that all the dates on the documents are updated.
8. AUTEC grants ethical approval only. You are responsible for obtaining management approval for access for your research from any institution or organisation at which your research is being conducted and you need to meet all ethical, legal, public health, and locality obligations or requirements for the jurisdictions in which the research is being undertaken.

Please quote the application number and title on all future correspondence related to this project.

For any [enquiries](#) please contact [ethics@aut.ac.nz](mailto:ethics@aut.ac.nz). The forms mentioned above are available online through <http://www.aut.ac.nz/research/researchethics>

(This is a computer-generated letter for which no signature is required)

The AUTEC Secretariat  
Auckland University of Technology Ethics Committee

Cc: Ayesha Scott

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