INSTITUTO
UNIVERSITÁRIO
DE LISBOA

The rise of FinTech
A case study of Klarna - a Buy Now Pay Later company

Mariana Casanova

Master's in Business Economics and Competition

Supervisor:
Assistant Professor Vítor Hugo dos Santos Ferreira
ISCTE Lisbon University Institute

October, 2023

iscte BUSINESS SCHOOL

Department of Economics

The rise of FinTech
A case study of Klarna - a Buy Now Pay Later company

Mariana Casanova

Master’s in Business Economics and Competition

Supervisor:
Assistant Professor Vítor Hugo dos Santos Ferreira
ISCTE Lisbon University Institute

October, 2023

Acknowledgments

A finalização desta tese marca a conclusão de mais uma fase da minha vida e, ainda que exigente, foi uma caminhada feita com tranquilidade e junto das pessoas certas.

Gostaria de começar por agradecer ao meu orientador, Professor Doutor Vítor Ferreira, que ao longo deste percurso sempre mostrou disponibilidade e sentido crítico, contribuindo positivamente para a conclusão deste trabalho.

Depois, e por saber bem o enorme desafio que é estudar e trabalhar a tempo inteiro ao mesmo tempo, importa deixar um especial agradecimento aos meus colegas de trabalho – e, principalmente, àqueles que hoje posso chamar de amigos - que sempre mostraram compreensão e apoio.

A todos os meus amigos, que estão comigo incondicionalmente, agraço a paciência, força e positivismo, muito necessários em momentos mais desmotivantes. Por acompanharem de perto e mostrarem preocupação genuína pelo meu bem estar, não posso deixar de agradecer à Mariana, Sofia, Raquel, Inês, Bia e Margarida. Por fim, e por saberem melhor que ninguém o quanto queria isto, deixo um agradecimento especial e com carinho à Mel e à Nia que me fazem sentir uma verdadeira sortuda por tê-las como amigas.

À família do João, que também considero minha, um agradecimento pela ternura, preocupação e apoio. A vossa força e boa disposição ajudou-nos muito e foi importante para nos mantermos motivados.

Aos meus pais e à minha irmã, a família que tenho a sorte de poder chamar minha, porque sem vocês seria muito mais difícil. Por nunca terem questionado as minhas escolhas, por me darem força e estarem sempre ao meu lado – refletem o verdadeiro significado da palavra família. O resto tenho a sorte de lhes poder dizer presencialmente.

Por fim, resta-me agradecer ao João, o meu maior apoiante, que acredita em mim mais que ninguém. Caminhar lado a lado com ele será sempre um dos meus maiores orgulhos.

Resumo

O panorama financeiro mundial tem vindo a sofrer uma profunda transformação, impulsionada pelo aparecimento de empresas de tecnologia financeira – FinTechs – e pelas suas abordagens inovadoras de pagamentos e serviços financeiros. Uma das perturbações mais proeminentes no setor de pagamentos é o advento de métodos de pagamento alternativos, nomeadamente o modelo “Buy Now, Pay Later” (BNPL). Esta tese aprofunda não só a dinâmica das FinTechs e o seu papel importante na remodelação dos sistemas de pagamento tradicionais, como engloba também um caso de estudo da Klarna, uma participante ativa na indústria de BNPL.

Nesta investigação, embarca-se numa análise aprofundada da evolução das FinTechs e examina-se a indústria de BNPL, sendo esses os dois principais pilares de uma perspetiva teórica. Adicionalmente, usa-se a Klarna como caso de estudo representativo no sentido de compreender como uma FinTech, que opera através do modelo BNPL, evolui e se estabelece. Os resultados desta análise foram amplamente reforçados por um questionário que permitiu obter um melhor entendimento acerca da perceção do consumidor relativamente aos temas acima mencionados.

Com a realização deste estudo, foi possível compreender que o ecossistema das FinTechs assim como a indústria de BNPL estão em constante evolução, sendo acompanhados pelas evidentes mudanças nas preferências do consumidor que tendem a valorizar cada vez mais a conveniência e segurança. Por fim, a aceitação do método BNPL quando analisada, provou também ser alta especialmente entre gerações mais novas, ainda que possa variar conforme condições geográficas e financeiras, assim como da preferência pessoal do consumidor.

Palavras-chave: FinTech, Métodos de pagamento alternativos, Buy Now Pay Later, Klarna

Classificação JEL: G21; E42; D14; G24

Abstract

The global financial landscape has been undergoing a profound transformation, driven by the emergence of financial technology companies - FinTechs - and their innovative approaches to payments and financial services. One of the most prominent disruptions in the payments industry is the advent of alternative payment methods, namely the "Buy Now, Pay Later" (BNPL) model. This thesis explores not only the dynamics of FinTechs and their important role in reshaping traditional payment systems, but also encompasses a case study of Klarna, an active participant in the BNPL industry.

In this research, we embark on an in-depth analysis of the evolution of FinTechs and examine the BNPL industry, which are the two main pillars of a theoretical perspective. In addition, Klarna is used as a representative case study to understand how a FinTech operating through the BNPL model evolves and establishes itself. The results of this analysis were largely reinforced by a questionnaire that allowed us to gain a better understanding of consumer perceptions of the aforementioned issues.

Through this study, it was possible to realise that the FinTech ecosystem and the BNPL industry are constantly evolving, accompanied by evident changes in consumer preferences, which tend to increasingly value convenience and security. Finally, when analysed, acceptance of the BNPL method also proved to be high, especially among younger generations, although it can vary according to geographical and financial conditions, as well as the consumer's personal preference.

Keywords: FinTech, Alternative payment methods, Buy Now Pay Later, Klarna
JEL Classifications: G21; E42; D14; G24

Table of Contents

Figure Index

Table Index

CHAPTER 1

Introduction

1.1 Background and relevance of the investigation

This dissertation was developed as part of the Master's programme in Business Economics and Competition and came from an interest in studying FinTechs and alternative payment methods on a deeper level

In order to highlight the economic relevance of this study, it is important to start by contextualising what has led to so many changes in payment systems. The driver was the 2008 financial crisis, which led to changes in consumer behaviour, regulation and technology as a whole, and a redefinition of the financial environment (Pinto, 2020).

Regulators sought to improve the safety and soundness of the financial system in order to protect the economy from new financial crises, which led to a sharp increase in the regulatory burden on financial institutions. They were therefore forced to divert their attention and internal resources to risk management and compliance initiatives that were deemed mandatory, causing product and process innovation to be neglected. As a result, entry opportunities arose for new competitors, including FinTech, which we will discuss throughout the dissertation (Arslanian & Fischer, 2019).

FinTechs were introduced with the aim of reshaping the financial sector, focusing on new digital technologies, use of algorithms, collection of data and with data process it to study new business models which allow them to be more effective and advantageous (Dhar & Stein, 2016). Therefore, since then, we have been observing a digital revolution that has been transforming the financial industry, introducing convenience, accessibility and efficiency.

Within the FinTech industry, this study will also focus on a business model used by companies called Buy Now Pay Later and more specifically on one of the most European well-known FinTech companies, Klarna.

This study is relevant in the sense that it has become essential to understand the new financial paradigm in which we are immersed, given the changes in consumer behaviour, the regulatory and security challenges and the growing agility and innovation associated with the financial industry.

1.2 Objectives and Investigation Questions

With the development of this project, some objectives have been set. Although several topics are covered, it is important to note that the focus of the study is more on the consumer side and the extent to which they react to the "new" financial paradigm that challenges traditional methods.

Therefore, first, it is important to understand how the emergence of FinTechs has revolutionized financial services, and why this has happened. We will go through FinTech as an ecosystem and its global landscape, to have a better overview of the current situation.

Then, it's relevant to have some context on what is the Buy Now Pay Later industry, how this method works, how it has been gaining popularity and its limitations.

Finally, the introduction of Klarna as a representative example of a BNPL FinTech with the goals of understanding how they have been growing, in what they innovated and their current status in Portugal. The results from the analysis of the case study will also be reinforced by the questionnaire that was done and that contributed to the study.

At the end of this study, it is important to be able to answer, firstly, the question "With the rise of FinTechs and the increase in the supply of alternative ways of payments, what does the consumer value more?" and secondly the question "What is the consumer's acceptance of the BNPL method?".

1.3 Dissertation Structure

This dissertation is organised into six chapters, the first of which is the introductory section, in order to better understand what is being studied, to present the general framework and relevance of the research, as well as the main thrust of it.

The second part focuses on the Literature Review, which in this case is divided into two subchapters, FinTech and the Buy Now Pay Later method. In the first one, I begin by chronologically explaining the emergence and evolution of the concept, its definitions, how it works as an ecosystem, ending with a contextualisation of the current and future scenario of these companies. In the second one, I start by explaining how the method works, how it has been gaining popularity, compare it with traditional payment methods and lastly its limitations, such as the lack of regulation.

Then, I explore the methodological approach chosen to answer the research questions that were defined. I present the practical and technical aspects of the methodology and scientifically justify the choice of each one.

In Chapter 4, I present the case study of the company Klarna. The strategy here is to make a general analysis, exploring the evolution of the company, the business model, the expansion model and the sources of income, moving on to a brief analysis of the particular case of Portugal and how they established themselves here in 2021.

The second methodological approach is quantitative, with a questionnaire being drawn up and the results analysed. I tried to segment the questionnaire into 4 levels (plus a socio-demographic characterisation of the respondents), starting by understanding the extent to which FinTech was perceived by the respondent, moving on to alternative means of payment and, of course, to our case study, Buy Now Pay Later method. This segmentation was done so that the respondent would have a line of reasoning and understand the origin of the various concepts introduced. Finally, in order to complement the case study, the questionnaire had a last part with some questions about Klarna and the extent to which the sample already knew and used the company's services.

Finally, I end the dissertation with some conclusions and recommendations, presenting the main results of the thesis and characterising the extent to which the work has enabled me to respond to the objectives initially set. I add a critical analysis with possible limitations that may have arisen as well as some topics on which future research in the area analysed should focus.

CHAPTER 2

Literature Review

2.1 Emergence and growth of FinTech

2.1.1 Main Eras of FinTech

Regarding the rise and evolution of the FinTech concept, it is important to distinguish three main eras, where authors Arner et al. (2015) use FinTech as an acronym for "financial technology", thus considering the word as a new term for an old sector. The Iyer Report (2017) aligns with the chronological sequence of events described by Arner et al. (2015), although it refrains from calling the time intervals phases, stages or episodes. The three phases are the following: (1) precursors to the digital age financial services (1866-1967), (2) digital age financial services (1967-2008), and (3) new age financial services (2008-present). For a better understanding of FinTech evolution milestones from 1830-1999 and 2000-2020, see appendix A.

The first era, FinTech 1.0, goes back from 1866 to 1967 and focuses on the infrastructure development of economic globalisation. This phase saw the construction of infrastructures to support globalised financial services. Various technologies were developed (telegraph, railways, among others), which allowed the rapid transmission of financial information, transactions and payments worldwide. The first trans-Atlantic cable in 1866, mentioned by Hills (2002), and Fedwire in 1918 in the USA allowed the first electronic funds transfer system using technologies such as the telegraph and Morse code (Arner et al., 2015).

Adding to this, according to Lerner (2013), in 1967 the first ATM was deployed by Barclays in the UK, thus marking the passage from analogue to financial digitisation. Therefore, the combination of several developments ended up strongly marking the beginning of the FinTech 2.0 era, which goes back from 1967 to 2008 (Arner et al., 2015).

This phase saw, as Bollen (2017) mentions, the emergence of automated clearing houses in the US and UK from 1968 to 1970, the creation of NASDAQ[1] in 1971 marking the advent of electronic trading. Additionally, this phase included the rise of online trading and banking, with Wells Fargo introducing the first online current accounts in 1995 (The Iyer Report, 2017).

[1] Acronym for National Association of Securities Dealers Automated Quotations.

Continuing on the chronological path of evolution and growth of the term FinTech, the period already considered FinTech 3.0, starts from 2008, in which new start-ups and other established technology companies began to provide financial products and services directly to businesses and the general public (Arner et al., 2015). Other factors strongly influenced the turning point of this era, such as public perception, regulatory scrutiny, and economic conditions, in particular the 2008 global financial crisis. There are a few reasons which can be presented as to why the crisis was a game changer as far as FinTech is concerned (Arner et al., 2015).

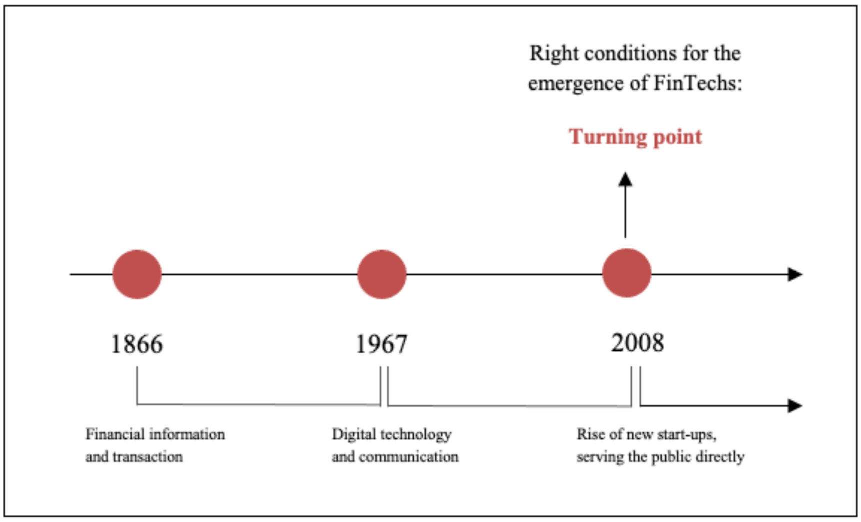
Firstly, the public perception of banks has deteriorated. In a report about the global financial crisis Mohan (2009:5) describes a "complete loss of confidence" after the Lehman Brothers collapse of in September 2008, resulting in a "complete lack of confidence and trust amongst market participants". Moosa (2022), in his book about a critical evaluation of FinTech, also notes that the crisis acted as a turning point for individuals, especially younger generations, who have come to prefer tech companies like Facebook, Google, Amazon, among others, over conventional financial institutions.

In addition, the lay-off of significant groups of highly skilled financial professionals during the crisis led them to explore other employment options (Moosa, 2022). Also, as can be read in the European Commission report on "Employment in the European Union in 2010", and using Portugal as an example, it is estimated that unemployment, was one of the hardest hit and the unemployment rate rose from 7.7% in 2008 to 9.6% in 2009 and 10.8% in 2010 (European Comission, 2010). It points out that the greatest impact of the crisis on employment in these states was due to the structure of the economies and the importance of the worst hit sectors (European Comission, 2010).

The aforementioned report also mentions that it was young people, between 15 and 24 years of age, who were most affected by the loss of work, and in Portugal the youth unemployment rate rose to 20% in 2009 (European Comission, 2010). So, once again, this new generation saw an opportunity to apply their skills in FinTech, as their high education equipped them with tools to understand the financial markets (Arner et al., 2015).

It’s also worth mentioning that regulators sought to improve the safety and soundness of the financial system in order to protect the economy from new financial crises, leading to a dramatic increase in the regulatory burden on financial institutions. In this way, they were forced to divert their internal attention and resources to risk management and compliance initiatives deemed "mandatory", resulting in product and process innovation taking a back seat. Thus, opportunities arose for the entry of new competitors, among them FinTech (Arslanian & Fischer, 2019). Figure 1 summarises the main FinTech eras as explained by Arner et al. (2015).

Figure 1 - FinTech eras



Source: Adapted from Chihimi (2018)

It is also important to note that there is also other labelling of the different phases of the rise of FinTech besides Arner et al. (2015). Even some authors argue that the origins of FinTech extend well beyond the 19th century, such as Palmer-Derrien (2020) that traces the origin of FinTech back to the invention of the abacus (a calculation tool also known as a “counting board”) around 700 b.C.. Besides him, also Alt et al. (2018: 235) points out that “the evolution of FinTech already suggests that financial technologies have a longer legacy than the term FinTech itself”, describing the period between 1500 and 1860 as phase 1.

On a recent report from Boston Consulting Group, the evolution of FinTech is divided into four distinct phases. Phase One (1998-2008) witnessed the digitalization of financial services with the rise of internet-enabled devices, introducing online banking, lending, and e-commerce, along with innovative online payment solutions. Phase Two (2009-2014) emerged after the 2008 financial crisis, capitalizing on mobile and cloud technologies for real-time access to financial services, prioritizing user experience and data-driven personalization. Phase Three (2015-2021) was marked by smartphone adoption, experiencing rapid growth, which intensified during the COVID-19 pandemic. Looking forward in Phase Four (2022 and beyond), BCG foresees a more favorable regulatory environment which is expected to fuel global innovation and infrastructure investments, while emerging technologies like generative AI will likely shape the industry's trajectory (Goyal et al., 2023).

2.1.2 Definitions of FinTech

With that being said, and in view of the diversity of services, there is no clear and unanimous definition of FinTech. It initially emerged to describe how financial services operators used information and technology to make their product and service offerings more efficient, cost-effective and customer-centric (Breidbach et al., 2020).

However, Gomber et al. (2017) stated that the term "FinTech" is a neologism which originates from the words "financial" and "technology" and describes in general the connection of modern and, mainly, Internet-related technologies (e.g., cloud computing, mobile Internet) with established business activities of the financial services industry (e.g., money lending, transaction banking). Still based on these authors, FinTech refers to innovators and disruptors in the financial sector who, through the internet and automated information processing, develop new business models that promise more flexibility, security, efficiency, and opportunities than established financial services. The innovation can come from a start-up, a technology company, or an established and consolidated service provider (Gomber et al., 2017).

If we take in consideration the World Economic Forum (2015: 3), it describes FinTech as "a contraction of finance and technology", defining it as "the use of technology and innovative business models in financial services". In this report about the future of FinTech, World Economic Forum (2015: 10) also describes the companies as the ones that "provide or facilitate financial services by using technology" and mention "Fintech is marked by technology companies that disintermediate formal financial institutions and provide direct products and services to end user, often through online and mobile channels". Hence, according to them, FinTech encompasses both the utilization of technology and the sector that delivers financial services through technological means (World Economic Forum, 2015).

Although various literature sources have engaged in discourse regarding the meaning of FinTech, and among the widely acknowledged definitions, the one provided by the Financial Stability Board holds significant acceptance (Moosa, 2022). Financial Stability Board (2022: 1) define FinTech as "technologically enabled financial innovation that could result in new business models, applications, processes or products with an associated material effect on financial markets and institutions and the provision of financial services".

2.1.3 FinTech ecosystem

In his report on FinTech as the new era of financial services, Varga (2018) starts by making a reference to at least three distinct evolutionary forces, which may explain the exponential growth in the number of FinTech companies. Firstly, companies already realised that technology, and particularly software, was creating a great opportunity to innovate and launch new services and products. Building an ecosystem around IT technology, the internet and all mobile devices gave companies room to grow rapidly while lowering marginal costs per new user. Then, secondly, the fact that companies using new technologies in their business are so successful proves that new business models as well as openness to cooperation with the ecosystem and other industries represent more profitable business opportunities. And lastly, the fact that the new services that are being developed are mainly based on price, design, user-friendliness and, especially, intuitiveness, has allowed them to be more successful and reach a greater number of users (Varga, 2018).

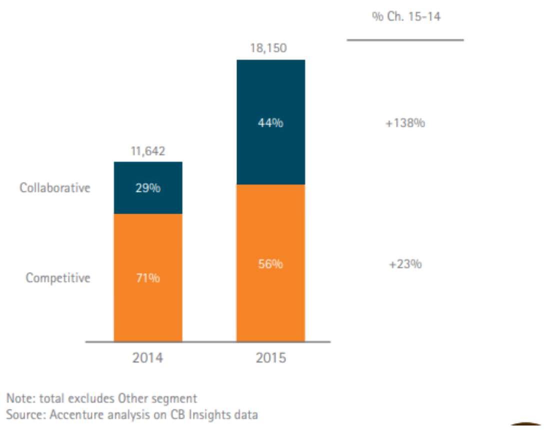
Although there is no specific definition found in literature in regard to the FinTech ecosystem, Lee & Shin (2018) identified in their study 5 main elements that are part of a FinTech ecosystem. They are the FinTech startups, the technology creators, the government (in the form of regulator or the different legislatures), the financial customers and finally the traditional or incumbent financial institutions. FinTech startups are at the core of the ecosystem, driving innovations in payments, wealth management, lending, crowdfunding, capital markets and insurance. The fact that they have an entrepreneurial nature, cost-efficiency, niche targeting and personalized services allows them to challenge traditional financial firms. Technology developers, on the other hand, are the ones that provide the digital platforms (e.g. for big data analytics or artificial intelligence) and create a favourable environment for the accelerated launch of services. Customers represent the source of revenue for these companies and can be either individuals or organisations, while financial institutions can be banks, insurance companies, stock brokerage firms or venture capitalists (Lee & Shin, 2018).

Also, on the basis of the evolutionary analysis by Arner et al. (2015) explained above, the authors developed a comprehensive topology of the FinTech industry which, for them, comprises five main areas: (1) finance and investment, (2) operations and risk management, (3) payments and infrastructure, (4) data security and monetisation, and (5) customer interface.

From another perspective, Accenture (2016) identifies two types of FinTech companies - competitive ones, which they define as direct challengers to incumbent financial services institutions, and collaborative ones - which offer solutions to improve the position of market players. Competitive companies have demonstrated some success by targeting less profitable segments by delivering a better service directly to customers.

At the same time there are also many institutions that can recognize the important role of collaborative FinTechs in order to drive their own evolution. The number of FinTechs that see incumbents as potential partners is increasing. In 2015, it was recorded that the level of investment in FinTechs that wanted to collaborate with industry increased by around 138%, accounting for 44% of all FinTech investment, up from 29% in the previous year. This increase reflects the willingness of both sides to collaborate (Accenture, 2016). Whereas investment from competitive FinTech companies only increased by 23% as shown in the Figure 2. So even though there continues to be more investment in the latter, there is a clear appetite on both sides to collaborate.

Figure 2 - Collaborative Investments vs Competitive Investments, 2014/15 ($M)



Source: (Accenture, 2016)

According to Urs Rohner (2016), former president of the Swiss bank Credit Suisse, collaboration seems to be the most promising option. On both sides there are advantages, since, for example, banks can alleviate cost pressures and enhance their operational efficiency, while FinTech startups can sustain their operations over the long haul, since they have shown strong growth over the years.

If we take into consideration Pollari (2016), he makes a distinction between companies between those that compete directly with existing financial institutions, calling them 'carnivores', those that seek to partner with or sell their services to financial institutions, calling them 'herbivores', which are attracting a more significant share of investment, and finally, as we observe some FinTechs maturing, we see the rise of another type of FinTech, which the authors name 'omnivores'. These seek both to disrupt incumbents in certain areas or markets, but also want to collaborate in others.

The afore mentioned author agrees with Urs Rohner and argues that there are benefits for both parties in a collaboration model. On the FinTech start-ups' side, they gain access to several important growth levers, such as customers, experience, data, capital and, of course, a much more accelerated ability to scale. Established players, on the other hand, get access to new ideas, innovative solutions, knowledge, and capacity, as well as potential investment opportunities in new players that are naturally more focused on a specific problem or opportunity.

As it was already possible to understand, FinTechs can differ a lot in terms of business model, services provided, or technologies used. Nevertheless, Chihimi (2018) identified some common points between them. First, it starts by noting that they are all information-based, being data-driven. Not only does the use of interconnected networks make it easier for them to exchange data and information between users Gimpel et al. (2018) but they also use data as a key piece to create and capture value, which drives their value proposition and business model (Caria, 2017).

Then, secondly, it finds that they have prioritised the digitisation of services, applying new technologies in innovative ways, enabling them to offer web-based and application-oriented solutions (Chihimi, 2018). With this, they are able to better respond to the social needs associated with the Millennials' generation, which is characterised by intense use of smartphones, social media and online platforms (Chen, 2022). Caria (2017) also mentions a characteristic that he associates with FinTechs: the fact that they relate directly with the user, not implying the existence of an intermediary, given the fact that they implement technology-driven solutions.

Third, they also manage to innovate at the financial level, and improve their products and services that are considered traditional by creating new instruments and redesigning technologies (Chihimi, 2018). Another feature highlighted by Gimpel et al. (2018) is the fact that FinTechs have the ability to bundle hybrid products by combining physical products and services, by enhancing their innovative nature.

Next, and as mentioned earlier, Chihimi (2018) states that there are many FinTechs looking to partner with other companies, a trend that is growing. They partner with banks by helping them become more dynamic, efficient and customer-oriented. They also form alliances with other FinTech and other types of companies to acquire new skills. This allows them to build a whole ecosystem that better meets customers' needs. As Caria (2017) explains, this is a trend to highlight, as it can be seen that many banks have not only established partnerships but also invested in and acquired FinTech in recent years.

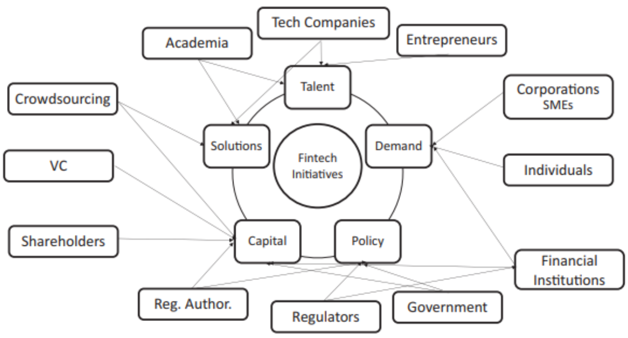
And, finally, in fifth place, Chihimi (2018) highlights that they are centred on the customer and their needs, as they mostly develop products and services that excel in simplicity, convenience, transparency, customisation, resulting then in differentiated experiences and increasingly to the customer's own personal taste. Caria (2017) also highlights the enormous capacity that this type of company must personalise and customise the services they offer according to consumer needs, this being one of the main factors that justifies the success of many FinTechs.

Lee et al. (2018) also emphasize that not only are FinTechs able to offer low-cost operations but they also prioritize the offer of personalized services. In their report on FinTech and Banking, Navaretti et al. (2017), in order to justify the low cost operations of FinTechs when compared to banks, show that some of the reasons that allow them to reduce these costs are technological advances, personalized services and products for consumers, limited regulatory requirements and lower cost and more secure transmission of information.

Still from the perspective of FinTech ecosystems, EY (2023)[2] has ranked the most relevant ones from a global perspective, identifying four core attributes of ecosystems, to which it is necessary to add "solutions" as the fifth element. The first attribute is customer demand among consumers, businesses and financial institutions. The second is related to talent, i.e. the availability of technology, financial services, among other business talent. Another attribute is capital, i.e. the availability of financial resources for internal initiatives or start-ups. Then, government policies on regulations, taxes and innovation initiatives, and finally, the creation of solutions, and the introduction of new technology, products, services and processes.

In this way, in his book about the future of FinTech, Nicoletti (2017) highlights the importance of understanding the composition of a FinTech ecosystem, starting from the subsystems linked to the stakeholders and linked to the five core attributes, which are demand, talent, capital, political and the fifth, the solutions attribute. If we look at Figure 3, we can see that Nicoletti (2017) has created a scheme in which FinTech companies are at the center, and can benefit from the system, or not, depending on the specific structure, competence and capabilities of the company to profit from the environment, and also on the effectiveness of the channels that connect the different components of the whole ecosystem.

Figure 3 - FinTech ecosystem



Source: (Nicoletti, 2017)

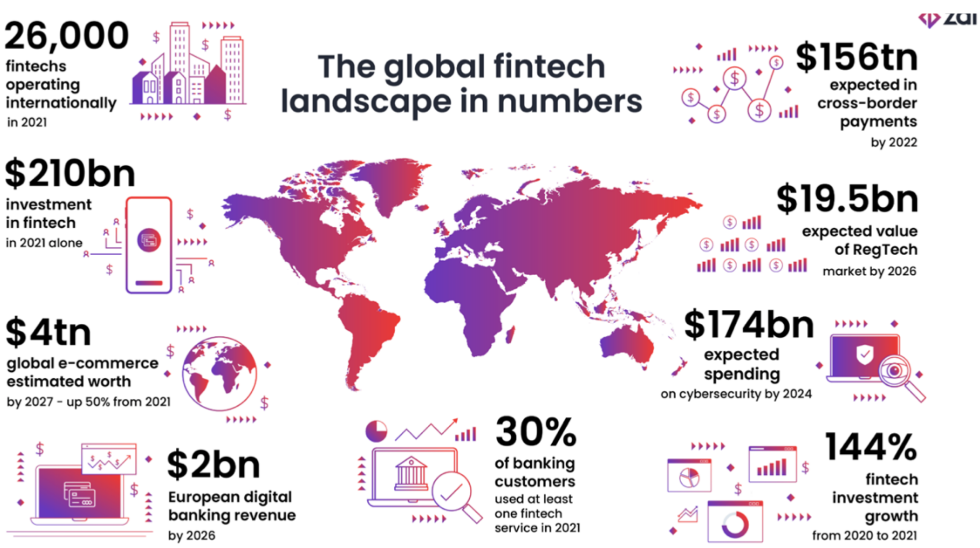
[2] Formerly Ernst & Young

2.1.4 Present and Future of FinTech

To give a better overview in numbers, as early as 2021, according to data provided by Statista (2022), the number of FinTechs worldwide exceeded 26,000. It can also be read that the total value of investments in FinTech companies worldwide increased dramatically between 2010 and 2019, when it reached $215.1 billion. Still, in 2020, these companies saw investments fall by more than a third, a figure that recovered in 2021 when it increased again and reached $226.5 billion. The Americas was the region that attracted the most investment in the sector, representing almost 80% of the total (Statista, 2023).

Overall, if we look at Figure 4 we can get an overview, in numbers, of the state of FinTech last year. We can see that the FinTech sector has been maturing more and more and evolving from a disruptive technology to an established technology.

Figure 4 - Global FinTech landscape in numbers



Source: (Zai, 2022)[3]

It is important to note that even though over the past decade FinTech companies have secured over $500 billion in funding, there has been a stark reality as valuations sharply declined across different sectors and regions. This can be explained by not only the escalation in interest rates that has been driven by ongoing inflation but also factors such as global tensions, supply chain disruptions and post-pandemic economic recovery (Goyal et al., 2023).

[3] Zai is a financial services provider based in Australia, catering to digital native enterprises by delivering comprehensive payment solutions encompassing cross-border transactions and reconciliation (Australian Trade and Investment Commission, 2022).

Notably, technological progress and innovation can be considered the driving forces behind FinTech evolution, shaping disruptive business models within financial services (Fong et al., 2021). As Gyori (2018) explains in his report "Ten Trends Defining the Next Decade of Banking", FinTechs are here to stay, with the aim of continuing to revolutionise the sector, optimising costs and investments, backed by the emergence of technologies such as artificial intelligence, blockchain, smart contracts, and machine learning, among other innovations. The improvement in the quality of services and a more diversified and competitive financial landscape draws the attention of more and more consumers and, in Goyal et al. (2023) report from Boston Consulting Group, it is estimated that as of May 2023 there are already about 32,000 FinTechs globally.

However, despite the promises of technology, FinTechs companies encounter certain challenging realities. Varga (2018), in his report on FinTech, notes that as the economic and social impact of FinTech grows, it is increasingly complicated for policymakers to clearly communicate their expectations of it, creating confusion and leading to dangerous breaches in the financial system. Thus, efforts are being made to 'fit' FinTech into existing legal frameworks. While too much regulation can undermine innovation efforts, at the same time under-regulation can also impose unfair advantages on new firms, given lower legal costs and overheads. This can also mean higher social costs, due to fraudulent activities and non-existent customer protection, as Varga (2018) explains. The lack of regulation will be slightly more detailed in the next chapter, on a Buy Now Pay Later perspective.

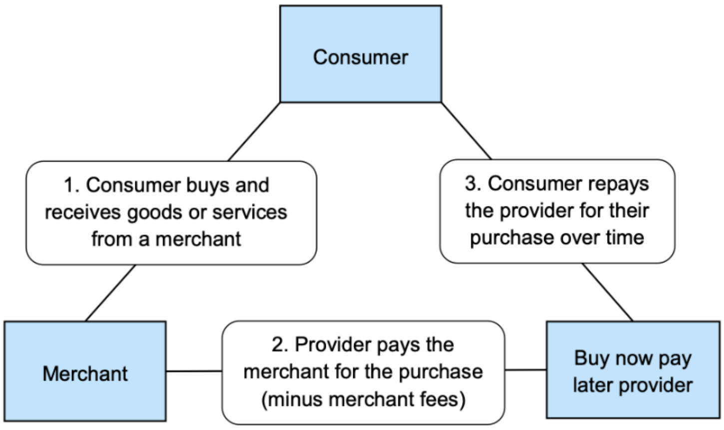
2.2 Buy Now Pay Later Industry

2.2.1 How the Buy Now Pay Later method works

Within the FinTech industry, it is important to highlight a business model used by companies called Buy Now Pay Later. Globally, it represents a market of USD 100 billion that concerns 2.1% of transactions in 2020 and this figure is expected to double by 2024 (Guttman-Kenney et al., 2022). In summary, this method can be defined as an arrangement between a consumer, a lender and a trader, whereby (1) the consumer buys and receives goods or services from the trader; (2) the lender pays the trader for the consumer's purchase; and (3) the consumer will repay the lender for their purchase over time (Australian Securities & Investments Commission, 2018).

The diagram in Figure 6 gives a better understanding of the situation where a consumer uses a Buy Now Pay Later agreement to buy goods or services, with the trader being paid by the supplier of the agreement. The supplier, over time, collects payments from the consumer to recover from the upfront payment they have made. In addition, consumers have the option of receiving the goods or services at the time of purchase, well before the full purchase price has been fully refunded (Australian Securities & Investments Commission, 2018).

Figure 5 - How a BNPL arrangement works



Source: (Australian Securities & Investments Commission, 2018)

Although it was initially used mainly for online shopping, it has now expanded to in-store purchases, eventually becoming a more popular payment option for buying electronic goods and appliances, clothing, fashion and furniture. It is also starting to be available for services such as travel and even healthcare (Alcazar & Bradford, 2021).

2.2.2 Types of Buy Now Pay Later products

BNPL products, according to Alcazar & Bradford (2021), fall into two main types, depending on how they are offered to consumers.

One type is when it is offered directly by the FinTech before the purchase is made and is usually of more interest to consumers with worse financial conditions, who are not able to have credit, namely Millennials and Generation Z[4]. It requires a less demanding credit check and the limit is naturally lower, and can increase as creditworthiness is proven (Alcazar & Bradford, 2021).

[4] The generation of People born from 1997 to 2012

The other type is when it is offered during a purchase through a merchant who partners with a FinTech or financial institution. It targets wider segments and offers long-term instalments, interesting not only Millennials and Generation Z consumers, but also Baby-Boomers[5], and customers who are more financially able. Credit limits and repayment terms are also higher (Alcazar & Bradford, 2021).

2.2.3 Comparing Buy Now Pay Later with other payment methods

Revenue for FinTech or financial institutions providing these services derives mainly from fees charged to merchants who accept the loans as a payment option from the buyer. In addition, revenue can also be generated by late fees or penalties charged to consumers who default on payment plans (Alcazar & Bradford, 2021).

Note that these arrangements share the structured payments of lay-by transactions and other credit arrangements (Consumer Protection, 2021). In a lay-by the consumer pays for goods in at least two instalments and does not receive them until the full price has been paid. In contrast, BNPL transactions satisfy the instant gratification or utility need among consumers with the goods and services received at the time, and subsequent instalment payments. In a sense, lay-by transactions are likened to saving for a purchase (or "save now buy later"), making regular deposits until the consumer has deposited enough with the lay-by provider to receive the good or service. Even if the consumption is postponed, the commitment is not (Consumer Protection, 2022).

Australia's National Online Retailers Association (NORA) sees these BNPL schemes as an improvement over lay-by as they offer benefits to the industry, notably by reducing or absorbing Card Not Present fraud. This fraud can happen when shoppers give credit card details via online or phone and do not present their card (Economics References Committee, 2019).

[5] Generation of people who were born between 1946 and 1964.

Yet if we compare this business model to credit cards, Gerrans et al. (2022) identified three major differences. The first is that there is (usually) no credit assessment in the traditional sense. According to the Economics References Committee (2019: 66) they apply "algorithms, which enable them to investigate consumers' financial circumstances and test their eligibility for funds" at point of sale. Next, BNPL spending limits and repayment schedules are more limited or restricted than those of credit cards. Finally, BNPLs are presented as being interest-free and accrue fees associated with missed or late payments, whereas credit cards have a predicted interest-free period and after which interest accrues on the outstanding balance (Gerrans et al., 2022).

2.2.4 Why has Buy Now Pay Later been gaining popularity

That said, and given the wide availability of consumer credit, it is important to understand the reasons that have led to a surge in popularity around these deals. Peng & Muki (2022) highlights three reasons that can be discerned.

Firstly, the fact that BNPL agreements are developed to meet the consumption habits of the Millennials generation, which is characterised by consumers entering the workforce and forming households, being willing to a higher level of consumption (Gapper, 2018).

This generation concerns those born between 1981 and 1996, having different spending habits compared to previous generations. An interesting point that Peng & Muki (2022) mention is that many BNPL providers start from the premise that Millennials, as they went through the 2008 Global Financial Crisis, are averse to traditional forms of credit, being more distrustful of traditional financial institutions. Moreover, they prefer to use debit cards for their payments, and choose to avoid expensive credit card interest and fees. Therefore, BNPL deals are seen by consumers as cheaper and less risky alternatives to traditional credit cards (Peng & Muki, 2022).

Second, the BNPL industry caters to the underbanked gig economy, those with less consistent working conditions, such as the self-employed, who are vulnerable to irregular income given the seasonal nature of their jobs. Inconsistent cash flow for these workers can result in delayed purchases of essential goods or living expenses, making them underbanked, i.e. they can no longer qualify for consumer credit, such as a traditional credit card. With some of these agreements or alternative payment methods, credit can be extended, under certain conditions, without credit checks. Still, to safeguard against consumers becoming over-committed, BNPL arrangements may have internal consumer credit limits, which can be increased later as the customer establishes a good credit history with the company (Peng & Muki, 2022).

Finally, the third reason is the fact that merchants can benefit from adopting BNPL arrangements. This is because consumers may be influenced to be more spontaneous in their purchases and spend more than they would if they did not have access to these alternative methods, as they are now able to make higher value purchases more conveniently. Merchants, for their part, are paid shortly after the customer purchases, minus a merchant fee imposed by the BNPL company, and will not take on credit risk arising from these arrangements. In other words, they benefit because they are able to grow their businesses and increase sales without having to worry about managing customer credit risks (Peng & Muki, 2022). In addition, merchants may also see this as an opportunity to gain or maintain competitive advantage, as consumers may opt for retailers that offer these services over those that do not (Alcazar & Bradford, 2021).

Lott (2021) explains that what is different and what has led to the growing popularity in the United States, for example, is the way FinTechs partner with retailers to provide this service and as an integral part of purchases on their websites. It also states that in a December 2020 survey of around 1,000 US adults, use of a BNPL service had been made by just over 40% of them, as well as that the service was most popular among Generation Z and young Millennials. It also indicated that female consumers were slightly more likely to use it, justified as a result of the initial push by fashion and cosmetics marketers. Another trend that reflects a change in e-commerce payment habits is the use of debit cards instead of credit cards (Lott, 2021).

2.2.5 Risks and limitations of BNPL

Yet, like other innovative and disruptive business models inserted by FinTechs into the market, they challenge existing regulation in that BNPL arrangements rely on "responsible spending" to provide a potentially cheaper option than credit card alternatives. In this way, they avoid legislative obligations associated with "responsible lending" that apply to other similar credit products (Gerrans et al., 2022).

At the moment, BNPL is exempt under most credit regulations in the UK, the European Union and the US. However, as a result of its sharp growth, these governments as well as consumer financial protection regulators are considering how to regulate these products. At the same time, Australia's financial regulator, for example, recently conducted a review and brought BNPL within its regulatory period (Guttman-Kenney et al., 2022).

Guttman-Kenney et al. (2022) argue that the collection of BNPL credit card debt is alarming for consumer financial protection as it raises doubts about the ability of some consumers to pay under this methodology. This is because it may lead them to enter a debt spiral, moving from a 0% interest debt that is easily amortised in a few instalments to a credit card debt that incurs higher amounts of interest rates.

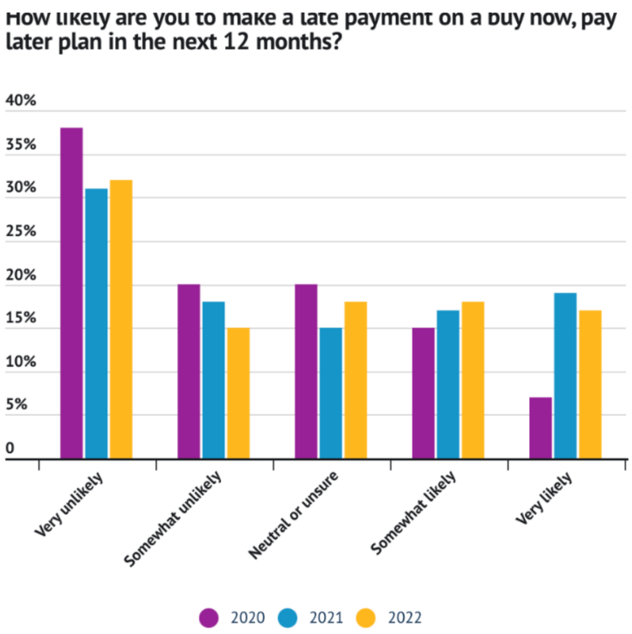
Still on risks to consumers, when talking about the availability of BNPL credit, it raises the issue of impulse buying. Purchases can be difficult to track in aggregate when dealing with multiple suppliers, and this can result in late or missed payment rates, accruing interest (Alcazar & Bradford, 2021).

As an example, on a study ran by C+R Research, 57% of US BNPL users have expressed remorse after making a BNPL purchase because the item turned out to be too costly. Approximately half of the users admit to being currently behind on a payment, and a nearly equal portion anticipates making a late payment in the future (C+R Research, 2021).

According to Consumer Financial Protection Bureau (2022) the majority of BNPL borrowers in the US who have experienced payment delays belong to Generation Z and a significant number of borrowers in the 25-33 age range also faced payment delays. At the same time, consumers aged between 51 and 64 years are less prone to falling behind on payments.

On another study by Caporal (2023) on the BNPL habits of 2000 Americans, it was revealed that 33% of respondents have ever made a late payment on a BNPL agreement. As stated before, consumers aged 18 to 24 are the most likely, according to the study, with 48% of these being in arrears. What was also found, and which is more alarming, is the fact that 17% of consumers say they're "very likely" to be late with a BNPL payment over the next 12 months, and 18% say they are "likely" to be late within a year. Therefore, 35% of consumers think there is a likelihood of making a late payment, compared to 32% of consumers who say it is "very unlikely", as we can see in Figure 7.

Figure 6 - Likeness of making a BNPL payment



Source: (Caporal, 2023)

Risks or limitations are also recognised on the part of retailers. The cost of a BNPL transaction for them ranges from 1.5% to 7% of the purchase value (taxes included), while the cost of a typical debit or credit card transaction ranges from 1 to 3%. Therefore, it is relevant to assess whether BNPL services suit what they are selling and whether it really justifies (Alcazar & Bradford, 2021).

Moreover, the diversity of options may lead customers away from payment options that are more beneficial for retailers and, if eventually, there is a change in purchasing habits, retailers cannot stop accepting, even if the cost has become higher than the benefit. This cost cannot decrease without some kind of regulatory intervention (Alcazar & Bradford, 2021).

Finally, it should be noted that, even if regulatory intervention is recent or non-existent, there are BNPL providers that report loans to credit bureaus, such as AfterPay, Affirm and Klarna. Shared information can appear on credit reports and in turn affect credit scores. This means that it can both benefit and 'harm' the consumer (Smyth, 2022).

Sezzle, as an example, offers a BNPL service that includes credit bureau reports if the buyer chooses to do so. In other words, if he makes all his payments on time, he benefits from a good credit history. At the same time, if it turns out otherwise, the credit score goes down. Afterpay, on the other hand, does not report payment history and therefore will not affect the score.

Therefore, it is up to consumers to choose the provider that is most convenient for them depending on whether or not they want to stick to payment plans, knowing that they run the risk of having their credit score affected (Lake, 2021).

CHAPTER 3

Methodological Approach

3.1 Research strategy and data collection

The methodology chapter aims to present, describe and justify all the processes used during the investigations, aligning with the research questions initially proposed.

The adoption of an approach that engages diverse sources of research seeks to achieve greater complexity, precision and extent in the scope of the study objectives (Woodside, 2010). Thus, the empirical research strategy of this dissertation will combine qualitative and quantitative methods, which in this case is a case study of the company Klarna and a questionnaire.

Since I'll be using two types of research sources, it is important to distinguish the perspective from which each will be approached. The questionnaire will be used to obtain the consumer's perspective and, in a nutshell, ascertain their perception and acceptance of FinTechs and the Buy Now Pay Later method. The case study will be from a company perspective, with the aim of understanding how Klarna became a leading company in the online payments industry and analysing its innovation and growth strategy.

An author who defends this dichotomy in qualitative/quantitative research is Yin (2001, 2003), as he stresses the importance of using, in certain research methods, qualitative and quantitative data at the same time, in order to look at both methodologies as complementary rather than rivals. Plus, better understanding can be obtained by triangulating one set of results with another and thereby enhancing the validity of inferences (Molina-Azorin, 2016). Greene et al. (1989) also highlight other aims and advantages of applying mixed methods research, these being complementarity, development (in the sense of a researcher using the results of one method to help develop another method) and expansion (i.e. extending the span of an investigation by using different methods).

3.2 Case Study

As already mentioned, firstly, a single case study of the company Klarna will be carried out. For Yin (2001: 32), the definition of case study consists of "an empirical investigation that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and the context are not clearly defined.".

Dooley (2002), on his case study research, also mentions that researchers from various fields use the case study research method to build on theory, produce new theory, challenge existing theory, explain a situation, provide a basis for applying solutions to different situations, to explore or even to describe an object or phenomenon.

Since this case study will be treated as a whole - holistic case - it is intended to examine only the global nature of an organisation (DePoy & Gitlin, 2016). Not only is this the case, but it will also serve as a theory-generating tool since the results obtained in this single case will be representative (also of other similar companies) and reinforced by the other strategies mentioned above (Yin, 2018).

It is also relevant to explain why the company chosen to do a case study on was Klarna. Taking into account the topics being studied in this dissertation, I chose a FinTech that works through the Buy Now Pay Later method and that reflects its significance through its growth and business success. It is a good example of a successful European FinTech and was considered one of the biggest Unicorns[6] in 2021, with a valuation over $45.6B (Wallach & Amoros, 2021). Beyond that, this company has, in a way, transformed the payment system, is the leading global payments and shopping service and supplies more intelligent and adaptable shopping experience to over 150 million active consumers through 450.000 merchants in 45 countries (Portugal Fintech, 2022). In addition, the brand's presence in Portugal has shown remarkable growth, making it a good and representative example of research.

Finally, the structure of the case study will follow an analysis from the general to the particular case, in which I will begin by addressing more global aspects of the company and then, more particularly in the Portuguese case, taking into account that the company settled in this country in 2021.

3.3 Quantitative Analysis - Questionnaire

The approach on this part of empiric evidence will be based on a quantitative methodology, with a survey by questionnaire, which is a technique commonly used in this type of research, since its structure is standardized, both in the text of the questions, and in their order (Gall et al., 2003). The analysis of the quantitative data obtained aims not only to describe the distribution of entities across the various values of the variables but also to highlight possible relationships between these variables (Lima & Pacheco, 2006).

[6] Term used in the venture capital industry to describe a startup company with a value of over $1 billion.

As Gil (2021: 137) explains, "Building a questionnaire basically consists of translating research objectives into specific questions. The answers to these questions will provide the data required to describe the characteristics of the research population (…)" so when creating the survey the approach was to ask only relevant questions (to not reduce the response rate) (Jones et al., 2013). This will allow me to understand, generally speaking, the consumer acceptance of the emergence of FinTech with alternative payment methods as well as to what extent he is tempted to consume more.

Moreover, Gil (2021) also highlights some advantages of applying a survey as a research method, such as making it possible to reach a larger number of people, even if they are dispersed over a larger geographical are – which was the case as there were answers not only from Portugal but also on a minor scale from other European countries. The questionnaire can also guarantee the anonymity of responses and allows people to answer it at a time that suits them best.

It also matters to take into consideration some limitations which can be the fact that it prevents knowledge of the circumstances in which the questions were answered, which can affect the assessment of the quality as well as the fact that it provides critical results in terms of objectivity as the items can have different meanings for each individual. Lastly, and this was verified in this survey, does not guarantee that the majority of people will return it duly completed, making the representativeness of the sample decline when the answers were analyzed (Gil, 2021).

The platform chosen to formulate the questionnaire was Qualtrics and the main reason was that I was looking for something that would allow the questionnaire to be available in Portuguese and English, in order to reach a greater number of people.

Before publishing the questionnaire, a pre-test was also carried out with a group of 11 individuals from different areas and, depending on the feedback obtained, I made some changes to the structure and small details in order to make it easier for the respondents to understand .

In regards to the size of the sample, it was shared with population over 18 years old, reaching not only Portugal but also other European countries (with less intensity) and it was shared in the most common social media, such as Facebook, LinkedIn and also Yammer.

The investigation on this survey was divided into five parts. The first part is the demographic characterization of respondents, to understand what type of individuals are responding to the survey.

Then, we get an overview on user's perception of FinTechs, to capture how familiar the user is with the term FinTech, if he has used their services and, mainly, seek to know what the acceptance of the consumer and the main reasons that still make him reticent to these companies.

Thirdly, we analyze consumer's shopping habits & user's perception of alternative payment methods, These questions are associated with the fact that the BNPL method may, or may not, drive users to make unbridled purchases because they have more flexibility in payment

After that, we introduce Buy Now Pay Later, whether the customer has already used it or not, what is the acceptance and perception of the consumer, to what extent he feels influenced to consume more in the existence of more flexible payment alternatives and, finally, the respondent's opinion regarding the lack of regulation of the BNPL market.

Finally, we go through Klarna to understand what is the public perception on our case study company, and to what extent consumers know about it and whether or not they use its services.

With the answers that were obtained, a characterization of the sample was made using the SPSS program, proceeding then to an extensive descriptive analysis of the results.

CHAPTER 4

Case Study of Klarna – a Buy Now Pay Later company

For this case study, the objectives are to understand how Klarna became a leading company in the online payments industry, its evolution and growth strategy. In this way, it is intended to follow an analysis from the general to the particular case, in which I will begin by addressing more global aspects of the company and then, more particularly in the Portuguese case, taking into account that the company settled in this country back in 2021.

In 2005, Klarna was founded in Stockholm, Sweden, with the intention of simplifying online shopping. Recognised as a global leader in shopping and payment services (the sector in which it operates), being its mission, according to its official website, to make payments as simple, secure and convenient as possible (Klarna, 2023).

This company's vision is to "transfer the power from the large corporations to the consumer and empower consumers to make fast and informed decisions." (Klarna, 2019).

As for its business concept, Klarna takes on the credit and fraud risks on behalf of the merchants, offering a payment solution that allows consumers to receive goods before making the payment. Their business model can be described as a combination of both business-to-business (B2B) and business-to-consumer (B2C) approaches (Wentrup, 2016).

Klarna has a few key sources of revenue which depend more on charging the merchant instead of the consumer. Most of the revenue comes from merchant transaction and variable percentage fees, which may vary based on the customer's payment method and country of origin. They have also interchange fees, coming for example from their partnership with Visa (FourWeekMBA, 2022). Moreover, they also introduce advertising options for the merchants it partners with which ends up being easy for the advertisers to know for example how many clicks have led to actual sales. The company facilitated collaborations between brand and influencer who endorse their products. This content is showcased directly within Klarna's shopping app, resembling the approach seen on platforms such as TikTok. Finally, the company also makes money through interest on cash, licensing fees and referral fees (Hendelmann, 2023).

In the almost two decades since launch, the company has made several major acquisitions, including in 2014, Germany's SOFORT for $150 million, which brought the Klarna Group (Failory, 2023).

In regard to their internationalization process, at first, Klarna followed a geographical path that meant gradually entering markets that were closer and easier to access before expanding into farther regions (Wentrup, 2016).

Klarna's market selection was also centered around the "follow-the-customer" principle, which involved targeting adjacent markets where existing e-commerce merchants operated. Their strategy aimed to establish strong partnerships with merchants in the Nordic countries and only after that, expanding into larger consumer markets globally (Wentrup, 2016).

These adjacent markets started with the Netherlands and Germany in 2010, followed by Austria in 2011. After that, the UK was entered, followed by the US, officially launching in September 2015. Even though the US market is geographically distant from Sweden, it held significant potential duo to its status as the world's largest e-commerce market and Sweden's fifth largest export market (Wentrup, 2016).

More recently, Klarna launched in Spain and Italy in 2020 and France, Poland, Ireland and Portugal in 2021. As for last year, it expanded to Canada, Greece and Czechia. It becomes clear that Klarna's technology has been integrated in more than 250.000 retail partners worldwide, enabling a better shopping experience for customers both online and in physical stores, at the same time it operates in 20 markets (Klarna, 2020a, 2020b, 2021a, 2021b, 2021c, 2021d).

It is also important to understand better how it works from a merchant and customer perspective. Merchants who are interested in partnering sign up for the service and add Klarna as a payment option in their online checkout systems. As for customers, they also need to sign up, undergoing an initial credit check and, if approved, can make purchases by choosing from three available payment options (this is not the case in all countries) (Failory, 2023).

From the merchant's perspective, even though they pay a flat fee and a percentage of the total cost of sale, it is strategic in the sense that it is a marketing ploy, as e-commerce sites using Klarna have been shown to receive around 44% more orders and 68% higher order volume (Failory, 2023).

Their technology includes algorithms that can determine whether the buyer is creditworthy. The data that is used to calculate risk is a combination of different data, such as credit score and consumer behaviour (The Economist, 2016). Furthermore, taking into account the industry in which they operate, it is important to know the customers better in order to provide products and services that meet their needs (Petrovski et al., 2017).

As for financial results, the Swedish FinTech made profit until 2019 but during the Covid-19 pandemic there was a decline in consumption due to inflation, leading to credit becoming more expensive and consumers defaulting on payments, generating losses (Milne &

Venkataramakrishnan, 2023). By 2022 they are estimated to have risen to 47 per cent, to around €940 million, thus recording the largest annual losses in history (Carvalho, 2023).

Still, the last quarter of 2022 saw a pullback in losses to €172 million, compared to losses of €416 million in the homologous quarter (Expresso, 2023).

Credit losses, meanwhile, fell 18% in the last quarter of last year to €127m, which translates into more people paying back what they owed Klarna (Expresso, 2023).

In December 2022, the US became their most profitable market, overtaking Germany, with a 71% increase in Gross Merchandise Volume year-on-year. Finally, they have also just announced that UK customers will now have a late payment fee, for better protection against defaults (Halliday, 2023).

As far as Klarna Funding, Valuation and Revenue is concerned, according to Crunchbase (2023), Klarna has raised a total of $4.5 billion in 33 rounds of debt and equity financing. It is currently valued at $6.7 billion, and was down 85% from the $45.6 billion valuation it accumulated just a year earlier. In fiscal 2021, it generated $1375 billion in revenue and meanwhile posted a net loss of $709 million (Hendelmann, 2023).

Coming now to our more particular case of Portugal, it launched in November 2021 and allows Portuguese consumers to shop online and split their purchases intro three interest-free equal payments – 'Pay in 3'. This payment feature is available not only through the Klarna app but also during the checkout process at partnered retailers. They also claim to work on making shopping easier by allowing to unlock deals and price drop alerts, manage payments and view delivery tracking (Klarna, 2021d).

In an interview with Expresso newspaper, the country manager, Alexandre Fernandes, shared that the company already has 400,000 users with an active account in Portugal, a market where it records about a thousand transactions a day (Carvalho, 2023).

More recently, and in an attempt to get closer to consumers looking for brands with more responsible environmental practices, they have also developed a new feature that allows the customer to know if the shop selling an electronic device is environmentally friendly or not (Carvalho, 2023).

In an interview given to BusinessIT, Klarna's country manager in Portugal, mentions that the country has one of the lowest credit card penetration rates in Europe (around 35%), namely because of the high interest rates charged. It also mentions that the number of credit cards has decreased by 1.6% according to the Bank of Portugal Report on Payment Systems 2019. This explains the evolution in the use of BNPL solutions, not forgetting also the appetite for flexibility and for increasing purchasing power (Marvão, 2023).

Since the company is inserted in a highly competitive sector - of payments and online shopping - Alexandre Fernandes also refers that in the company's business model, BNPL is only a part, since 40% of its clients globally pay for their purchases immediately and in full. What really sets them apart from the competition is the user experience of the mobile application, which allows them to have useful information such as returns, budget tracking, among others, leading consumers to prefer it because they can save time, money and control their finances (Marvão, 2023).

CHAPTER 5

Analysis and Discussion of Results

After presenting and describing the research methodology, this chapter aims to analyse, process and interpret the data collected in order to better understand how to answer to our research questions.

5.1 Characterisation of the sample of respondents

There were 231 responses to the survey, all of which were considered valid, with no missing values. The questionnaire started by including some questions about the individual's sociodemographic data such as gender, age, highest level of education obtained, country of residence and gross monthly income, which we will now analyse. This information not only will allow us to characterize the sample but will also be helpful to correlate with other questions.

As can be seen in Table 1, the respondents are mostly female, representing a percentage of about 66.7% of the total sample, while 32.9% are male and 0.4% prefer not to say.

Table 1 - Distribution of the sample by gender

	Frequency	Percentage
Female	154	66.7
Male	76	32.9
Prefer not to say	1	0.4

Regarding age ranges of the respondents, and observing Table 2, it is verified that the sample was concentrated in the age group of 25 to 34 years, and in the 18 to 24 years, representing 39.4% and 33.8%, respectively. These values are expected given that the topics covered, whether FinTechs or the Buy Now Pay Later method, generate more curiosity for younger age groups.

Table 2 - Distribution of the sample by age ranges

	Frequency	Percentage
18-24	78	33.8
25-34	91	39.4
35-44	34	14.7
45-54	15	6.5

55-64	10	4.3
65+	3	1.3
Total	231	100

If we observe the educational qualifications of the respondents, shown below in Table 3, we notice that the majority obtained a bachelor's degree, with 53.7% of the sample. There was also one respondent with the postgraduate level and two others with a doctorate. The remaining respondents concentrated more on the master's degree, with 15.2% having secondary education.

Table 3 - Distribution of the sample by level of education obtained

	Frequency	Percentage
Secondary School	35	15.2
Bachelor's Degree	124	53.7
Master's Degree	69	29.9
PhD	2	0.9
Others	1	0.4
Total	231	100

As for the country of residence of the sample, although there is a considerable variety of respondents from different countries, it is verified that the vast majority, that is, 72.7%, is concentrated in Portugal, with about 7.4% of respondents residing in Germany and 3.9% in the United Kingdom.

Table 4 – Distribution of the sample by country of residence

	Frequency	Percentage
Belgium	2	0.9
China	3	1.3
Colombia	1	0.4
Czech Republic	2	0.9
France	1	0.4
Germany	17	7.4
India	4	1.7
Indonesia	1	0.4
Italy	5	2.2

Malaysia	2	0.9
Netherlands	4	1.7
Poland	1	0.4
Portugal	168	72.7
Saudi Arabia	1	0.4
Singapore	1	0.4
Spain	1	0.4
Switzerland	3	1.3
Taiwan	1	0.4
United Kingdom	9	3.9
USA	4	1.7
Total	231	100

If we take into account the gross monthly income of the respondent, we find that the respondents are mostly distributed in the ranges of less than €1,000 per month and between €1,000 and €1,499, representing percentages of 35.1% and 27.3%, respectively. However, 9.5% of the individuals are also in the range of more than €3,500.

Table 5 - Distribution of the sample by gross monthly income

	Frequency	Percentage
< €1,000	81	35.1
€1,000-1,499	63	27.3
€1,500-1,999	22	9.5
€2,000-2,499	15	6.5
€2,500-2,999	13	5.6
€3,000-3,499	15	6.5
> 3,500€	22	9.5
Total	231	100

Regarding professional situation, we can see that more than half of the sample of respondents is employed, and there is also about 27.3% of the sample that combines studies with work, and almost 19% are students.

Table 6 - Distribution of the sample by professional occupation

	Frequency	Percentage
Student	43	18.6
Working Student	63	27.3
Employed	122	52.8
Unemployed	3	1.3
Total	231	100

5.2 User's perception of FinTechs

Once the sample has been characterized, it is important to move on to the most important questions for the analysis and this first chapter seeks to know the perception of respondents about the term FinTech.

If we look at Table 7, we conclude that of the 231 respondents, the majority is familiar with the term FinTech, thus representing about 58% of the sample.

Table 7 - Have you ever heard of FinTechs?

	Frequency	Percentage
No	97	42.0
Yes	134	58.0
Total	231	100

After understanding to what extent, the sample was or was not familiar with the term FinTech, in Table 8 we can observe the distribution of responses by age groups. This crossing of information allows us to conclude that, as expected, in younger age groups the number individuals who know the term is higher than that of those who do not. This is expected, given the fact, and as explained throughout this dissertation, younger generations are not only more exposed to the internet, but also are more familiarized and show less aversion to technology risks when compared to age ranges like 55-64 or 65+. The result in this last age range was expected since of the 3 individuals who responded, not one knew what a FinTech is.

Table 8 - Have you ever heard of FinTechs X How old are you

	How old are you?						
	18-24	25-34	35-44	45-54	55-64	65+	Total

Have you ever heard of FinTechs?	No	35	30	17	8	4	3	97
	Yes	43	61	17	7	6	0	134
Total		78	91	34	15	10	3	231

I then proceeded to make a distinction between who is aware and who's not of the term, differentiating the questions.

To those who knew what a FinTech is, I asked if they have ever used financial services offered by one of these companies. Of the 134 individuals, about 70% (94) of them answered Yes, leaving 40 individuals to not ever using them before.

Then, to these 94 respondents who have used, I asked what they considered to be the main advantages offered by these financial services, according to their personal experience. Of the options available (of which they could select more than one) - convenience, innovation, security, financial access and credibility - convenience prevailed and around 84 people - out of 94 - selected this option. This was followed by innovation and financial access, which had each one around 21% of adherence.

From the point of view of the disadvantages, from the available options - lack of security, lack of reliability, user experience, regulation, lack of historical background - as expected, regulation and lack of historical background when compared with traditional financial institutions predominated, with each one having around 25% adherence. Lack of security and reliability also came next with 19% and 16%, respectively. This only shows that even those who use these type of services have concerns, especially when it comes to regulation which can affect consumer protection and financial security. In addition, about 10% of this sample reported finding no disadvantages.

If we now pay attention to the part that is unfamiliar with the term or even knows it but never used it, the next question was if they considered using financial services from this type of company in the future. Of the 137 individuals answering, 91 said Yes. This also shows that even people who are not as informed, can see the potential of using these services.

Those who answered No were also asked about the reasons why they were reticent. The predominant answers were the comfort already felt with traditional services, preference for personal relationships, lack of trust and, as expected, privacy and security issues. In the free-response section, their unfamiliarity on the subject prevailed.

5.3 Consumer's shopping habits & User's perception of alternative payment solutions

In this chapter, we dive into a more specific type of financial services FinTech and the alternative payment solutions will be introduced, starting by taking into account the consumer shopping habits. When asked how often they make impulse purchases and 45% of the respondents revealed that they do it sometimes, while about 37% do it rarely. On a smaller scale, 6% never do it and 11% do it often. This helped me understand if the tendency is for people to be or not to be thoughtful about the purchases they do.

After this, I ask what the main reasons are why a person would see herself using alternative payment methods (in this question, I give some examples such as proximity or mobile payments). As can be seen in Table 9, even when being able to select more than one option, people value the most the velocity of the transactions which is in a way related to convenience.

Table 9 - What are the main reasons why you use alternative payment methods?

	Frequency	Percentage
More security	42	11.2
Faster transactions	127	33.9
Lower fees	35	9.3
Convenience	139	37.1
Never used alternative payment methods	26	6.9
Others	6	1.6
Total	375	100

There is also a small percentage of people who have never used alternative payment methods, which also shows us that the sample is in its majority are used to payment solutions more convenient and accessible. This comes in hand with the rise of FinTechs as a reflection of some innovation in financial behaviour alongside the less dependency on physical cash and post-crisis scenario, which was already explored before in this dissertation.

When asked about the most important factor when choosing a payment method, as expected, people prioritize Security and Convenience, with 56% and 23% of adherence respectively. I have also asked about their opinions in regard to alternative payment methods when compared to traditional payments such as credit cards or debit cards, 60 people said it was much better and 81 mentioned it was somewhat better, having also 29% of them saying it was about the same. Finally, as we can see in Table 10, the main disadvantages people found were the lack of acceptance by many merchants and the limited security potential. This can be transversal to many payment methods and is clearly something that worries the consumer and, as shown before, is not something which he directly correlates with alternative payment solutions (Table 9 shows low adherence of more security as an advantage).

Table 10 - What are the main disadvantage you see in alternative payment methods?

	Frequency	Percentage
Lack of acceptance by many merchants	111	35.0
Limited security potential	97	30.6
Lack of familiarity with the method	65	20.5
Transaction limitations	28	8.8
I don't see any disadvantage	9	2.8
Others	7	2.2
Total	317	100

5.4 Buy Now Pay Later

In this part of the questionnaire, we move on to a more specific payment method and introduce the Buy Now Pay Later method. I start by asking them if they have ever used it to make a purchase. As observed in Table 11, the majority of the sample never used this method to make a purchase. This is an expected result and can be explained by some factors such as that it is a relatively new concept in many regions and there's lack of familiarity with the method.

Table 11 - Have you ever used the BNPL method to make a purchase?

	Frequency	Percentage
Yes, frequently	15	6.5
Yes, sometimes	32	13.9
I have, but not anymore	8	3.4
Never used it	176	76.2
Total	231	100

I continue by asking what would be the main reason why the respondent would use this method. Given the options - Better ability to pay for products and services, Better payment flexibility, Better access to credit, Lower fees and Convenience – about 47% of people highlighted the better payment flexibility, followed by convenience. There was also the possibility to insert their own options to which 19 out of 25 who selected this mentioned they would not use it.

After that, the user had to select the main disadvantages encountered and 146 individuals mentioned the risk of excessive debt, followed by 83 selecting lack of clarity on loan terms and 76 selecting high interested rates. There was also a small amount (16 persons) who did not see any disadvantage.

I have also explored how concerned the consumer was with using BNPL, giving examples of impact on credit score, excessive debt or hidden fees. In this case, about 40% of people said they were somewhat concerned and 20% very concerned. This results, when analysed alongside with Table 11, can also help to explain in part why 76% of the respondents never used this method.

When asked if the consumer would be more likely to make a purchase from a retailer if they offer alternative payment methods, of the 231 respondents, 158 said "No, it does not encourage me to spend more" – this represents about 68% of the sample, as observed in Table 12. This follows the logic from previous answers and is an expected result, as consumers seem apprehensive and unfamiliar with Buy Now Pay Later method.

Table 12 - Would you be more likely to make a purchase from a retailer if they offer alternative payment methods?

	Frequency	Percentage
Yes, it encourages me to spend more	73	31.6
No, it does not encourage me to spend more	158	68.4
Total	231	100

I have also asked how do they think the availability of BNPL affects merchants' risk of consumers failing their payment dates or even not paying, to which 51% of the sample said that they believe it increases the risk of non-payment or defaults, as consumers may overextend themselves financially. There was also the option where the risk would decrease but only about 7% agreed with that. Furthermore, when asked about potential risks in the market with the increased availability of BNPL (being possible to select multiple options) the majority of respondents agreed that consumers may become overextended financially and accumulate debt. This was followed by merchants which may suffer from increased default rates and lower profit margins and both consumers and merchants that may suffer from increased fraud and security risks.

There was also a question about how the user thinks the availability of BNPL affects consumers' perception of the affordability of products, to which 75% of the respondents agreed that it makes products appear more affordable, as consumers can spread out the cost over time. Only a small percentage – about 5% - agreed on the opposite, saying it makes products appear less affordable, as consumers are paying interest on the purchase price.

I have also addressed the issue of the yet lack of regulation in the BNPL industry, asking what they think might be the main concerns. In this case there were two that stood out with more votes, which were lack of transparency regarding the rated and interest charged and the risk of consumers getting into excessive debt. Following that was lack of protection for consumers in case of issues with BNPL providers and also fraud potential.

Besides that, 58% of the sample believes the lack of regulation is, or might become, a problem, 24% agree it is a problem but not of great concern, 2% thinks there is not a problem and 16% are not sure.

Finally, when questioned about if they thing government regulation is necessary for the BNPL industry, the majority, as in 74% agreed that it is necessary, 22% were not sure and 4% don't think it is necessary.

5.5 Klarna

Going into the last subchapter of this survey, its purpose is to understand what's the user perception on the company Klarna. The first is exactly to understand if the respondent has ever user their services before, to which 84% answered No and 16% said they have used it.

In this case there is also a differentiation of question to who has used it and to hasn't. For the 193 persons who answered No before, it was asked the reason to not having used it, as can be seen below in Table 13. We can observe that most of the consumers are not familiar with Klarna or with what they offer, but there's also a considerate amount of people who actually prefers to pay for purchases in full upfront. In a smaller scale, there's also 23 persons not comfortable with the idea of using a BNPL service.

Table 13 - What is the primary reason why you have not used Klarna services?

	Frequency	Percentage
I am not familiar with this company and which services they offer	91	47.1

I prefer to pay for purchases in full upfront	70	36.3
I am not comfortable with the idea of using a Buy Now Pay Later service	23	11.9
Others	9	4.7
Total	193	100

Still in these group of people, it was asked if, in case they were to use their services, what they consider to be the most appealing aspects and the interest-free payment option was the one which was mostly selected, followed by the ability to pay for purchases over time and convenience and ease of use. As for concerns, people highlighted accumulating debt or overspending and also hidden fees or charges.

For the 38 persons who answered that they have used Klarna services, it was asked how often, as observed in Table 14. The majority of the answers were inserted in the middle as to sometimes and rarely.

Table 14 - How often do you use Klarna services?

	Frequency	Percentage
Every time I make a purchase	0	0.0
Every time I want to make a purchase with a higher value	4	10.5
Sometimes, but not always	15	39.5
Rarely	15	39.5
Never	4	10.5
Total	38	100

This group also had to answer if they would be more likely to purchase something from a retailer if they had Klarna BNPL service as a payment option, to which 16 said Yes, 16 said it wouldn't affect their purchasing decision and 6 answered No. They have also highlighted the payment schedule flexibility and easiness of use to the most important factors when deciding whether to use Klarna BNPL services.

Finally, when asked if any of them have ever had difficulty paying back a Klarna BNPL instalment, only one answered Yes and the remaining 37 said No. This means that even the few persons of the sample who use this service, use it carefully.

CHAPTER 6

Final Remarks

Coming to the final part of this dissertation, it’s important to discuss the main results and conclusions.

The subject of FinTechs and its evolution has already been widely discussed but nevertheless it was important to contextualise how this concept came about, the breaking points and the potential drivers for these financial services to enter the market. We were able to see that there are various approaches to labelling the stages of FinTech evolution, even views that date back to antiquity.

There are also several definitions of FinTech, and while there is no unanimity, only the general understanding that it is an intersection between finance and technology. Having the perspective of this type of service through several different entities has strengthened our understanding of the concept and its usefulness.

Plus, understanding the composition of the FinTech ecosystem was crucial, involving stakeholders and core attributes like demand, talent, capital, and solutions (Lee & Shin, 2018). Its evolutionary forces, the distinction between collaboration and competition in this environment as well as the business model, which can vary depending on the service or technology used, have positively reinforced the analysis of this industry.

Following Gyori (2018) it is, therefore, possible to conclude that FinTech is constantly evolving and currently has a substantial impact on the global financial landscape. Despite being a sector that is maturing and moving from a disruptive technology to an established technology, it faces several challenges, namely its volatility and regulatory issues.

If we take into account the sample of the questionnaire used for analysis, we can say that the majority are familiar with the term and that this familiarity is higher in the younger age groups, in line with greater exposure to technology and less aversion to technological risks. For those who are familiar with the term, most have already used its services, and for those who have never used it or don't know what it is, there is also a willingness to use these financial services in the future.

As for alternative means of payment, the results suggest that consumers are quite used to alternative payment solutions, and most people consider them to be better than traditional methods such as credit cards. This consumer behaviour is in line with the rise of FinTechs as a reflection of innovation in financial behaviour and the decrease in dependence on physical cash, as discussed earlier in the dissertation.

In general, the growth of FinTech and the increase in alternative means of payment has changed consumer preferences and, as can be seen in the questionnaire, convenience of services is the most reported preference.

In addition, they prioritise the speed of transactions, which we can say is related to convenience. This is because fast financial transactions, easier payment, quick access to funds, reduced bureaucracy and greater payment flexibility are all factors that represent greater convenience for the consumer. In other words, the faster and more efficient the payment process and financial operations, the more convenient it will be for them and the better the shopping experience will be.

The last preference that users report most is security, which is a critical factor in financial services. In a competitive market like this, and given consumer preferences, security can be the differentiating factor, which is being prioritised by FinTechs in order to protect personal and financial data, prevent fraud and comply with regulations. However, in analysing the results of the questionnaire, it was concluded that consumers refer to the limited security potential of alternative means of payment as one of the biggest disadvantages in this industry.

It was also possible to conclude that Buy Now Pay Later is playing an increasingly important role in the payments landscape, offering consumers the flexibility to purchase goods and services immediately and pay for them over time, while at the same time driving the growth of the FinTech industry. Still, it should be noted that this model can affect consumers' financial behaviour and the regulations surrounding it to ensure consumer protection, as we were able to see throughout this thesis.

This method offers an alternative payment model that differs from credit cards in relation to, for example, credit assessment, spending limits and interest accrual, thus offering a distinct payment option in the financial market, as explained by Gerrans et al. (2022). We were also able to conclude that the growing popularity of this method is due to various reasons, as described by Peng & Muki (2022) and Lott (2021), such as the fact that these agreements cater for changing consumer habits and that merchants can benefit from and attract purchases without taking credit risks, as well as gaining a competitive edge.

The questionnaire, when observed, gives a better insight into consumer acceptance of this payment method. Although FinTech and alternative payment methods as a whole are well accepted, the same is not yet true for the BNPL method. The majority of respondents have never used this alternative and consumers show some reluctance and concern, with a number of people saying they would never use BNPL.

The main disadvantage pointed out was the risk of excessive debt, followed by the lack of clarity in the terms of the loan and the high interest rates. They also mentioned their belief that the increased availability of BNPL increases the risk of non-payment or default on the part of consumers, due to possible over-indebtedness. It can also be concluded that the majority of consumers believe that BNPL make products seem more affordable, as consumers can spread the cost over time.

As for consumer perceptions, they still see this payment alternative as risky in terms of the lack of regulation, the lack of transparency in the fees and interest charged and the lack of consumer protection in the event of fraud. Most individuals believe that government regulation is necessary in this industry in order to mitigate these risks and promote more transparent and secure practices in the BNPL industry.

To summarise, during this dissertation it has been possible to understand the extent to which this industry has become relevant to consumers, while also realising its current risks and limitations. Acceptance of this alternative is, in general, relatively high, particularly among younger generations, however this acceptance is not universal, as we were able to verify by analysing the answers to the questionnaire - we can conclude that it may vary depending on financial circumstances, preferences and awareness of the potential risks involved.

Finally, having a better understand of a company which operates through Buy Now Pay Later, Klarna, representing how the organizations in this industry work and how they grew in such a dynamic market was crucial to conclude this study. In addition, analysing the specific case of Portugal, a country with one of the lowest credit card penetration rates, allowed us to have a better perception of how a FinTech can be present in a small country which was explained by Carvalho (2023). The company already has about 400,000 users with an active account in Portugal, and of the sample present in the questionnaire only 16% of respondents answered that they had already used Klarna's services. This result turns out to be in agreement with the answers given in the previous chapter, and the main reasons given was not being familiar with their services, and there were even those who preferred to pay in full for the purchases at the time of purchase.

As a whole, this thesis has contributed to a more comprehensive understanding of FinTechs and their impact, while also delving into the Buy Now Pay Later payment method. It has also contributed to a better understanding of consumer behaviour in relation to alternative payment methods, as well as their preferences. Security was the differentiating factor, with the lack of regulation and the risk of possible indebtedness being the main consumer concerns. These findings allow for the future development of the industry and the enhancement of the costumer experience, while also having practical implications for companies and regulators wishing to meet the evolving needs of the consumers.

With the main conclusions of the study already stated, it is important to note that there were limitations that prevented the achievement of better results. Although the existing information on FinTech is extensive and is a topic already widely studied, the same is doesn't apply to Buy Now Pay Later and the lack of evidence on the impact on the market of the lack of regulation that occurs in this system, limited the results in this area. In addition, although Klarna is a company with an already considerable presence, especially in Europe, the information was often limited to news, articles and interviews given by management, thus limiting the obtaining of information for the case study.

When using the online questionnaire method, the constitution of the sample, regardless of the number of answers obtained, will never be sufficient to ascertain the accuracy of the analysis. Then, in order to reinforce the case study, it was initially intended to conduct an interview with a Klarna Portugal collaborator. However, and as mentioned by the contacted collaborator, due to the company's policy, they were not allowed to give any information.

Thus, it is suggested, for future studies on this topic, to try to analyse, at a more in-depth level, the possible impact on the market of the lack of regulation that still occurs in the Buy Now Pay Later industry. In addition, to study to what extent the increased availability of this method increases, or not, the consumption by the population, in order to also be able to adapt legislative measures and protect the consumer.

Bibliography

Accenture. (2016). *Fintech and the evolving landscape: landing points for the industry*.

Alcazar, J., & Bradford, T. (2021). *The Rise of Buy Now, Pay Later: Bank and Payment Network Perspectives and Regulatory Considerations*.

Alt, R., Beck, R., & Smits, M. T. (2018). FinTech and the transformation of the financial industry. *Electronic Markets*, *28*(3), 235–243. https://doi.org/10.1007/s12525-018-0310-9

Arner, D., Barberis, J., Buckley, R., Law, U., Arner, D. W., & Buckley, R. P. (2015). *The Evolution of FinTech: A New Post-Crisis Paradigm?*

Arslanian, H., & Fischer, F. (2019). *The Future of Finance: The Impact of FinTech, AI, and Crypto on Financial Services*.

Australian Securities & Investments Comission. (2018). *Review of buy now pay later arrangements*.

Australian Trade and Investment Commission. (2022, February 14). *Australian payments specialist, Zai, a new force in global fintech*. Australian Trade and Investment Commission. https://www.austrade.gov.au/news/success-stories/australian-payments-specialist-zai-a-new-force-in-global-fintech

Bollen, B. (2017, May 19). *The history of Nasdaq from creation in 1971 to the present*. Capital.Com. https://capital.com/the-history-of-nasdaq-from-creation-in-1971-to-the-present

Breidbach, C. F., Keating, B. W., & Lim, C. (2020). Fintech: research directions to explore the digital transformation of financial service systems. *Journal of Service Theory and Practice*, *30*(1), 79–102. https://doi.org/10.1108/JSTP-08-2018-0185

C+R Research. (2021). *Buy Now, Pay Later Statistics and User Habits*. https://www.crresearch.com/blog/buy-now-pay-later-statistics/

Caporal, J. (2023). *Study: Buy Now, Pay Later Use Declines for Third Straight Year*. https://www.fool.com/the-ascent/research/buy-now-pay-later-statistics/

Caria, P. da C. (2017). *FinTech: an explorative study into the characteristics of their business models*. https://doi.org/10.13140/RG.2.2.28224.53767

Carvalho, P. S. (2023, March 17). *Klarna atinge 400 mil utilizadores em Portugal e aposta nas compras sustentáveis*. Expresso. https://expresso.pt/sustentabilidade/2023-03-17-Klarna-atinge-400-mil-utilizadores-em-Portugal-e-aposta-nas-compras-sustentaveis-a2fc7963

Chen, J. (2022, July 13). *Millennials: Finances, Investing, and Retirement*. Investopedia. https://www.investopedia.com/terms/m/millennial.asp

Chihimi, K. (2018). FinTechs & The Banking Industry: Disruption or Evolution? *Escola de Administração de Empresas de São Paulo*.

Consumer Financial Protection Bureau. (2022). *Buy Now, Pay Later: Market trends and consumer impacts*.

Consumer Protection. (2021). *Layby? Buy now, pay later? Learn how to use these payment methods safely*.

Consumer Protection. (2022). *Laybys and buy now, pay later*. Ministry of Business, Innovation & Employment. https://www.consumerprotection.govt.nz/general-help/ways-to-buy-and-pay/laybys-and-buy-now-pay-later/

Crunchbase. (2023). *Klarna*. Crunchbase. https://www.crunchbase.com/organization/klarna/company_financials

DePoy, E., & Gitlin, L. N. (2016). *Introduction to research : understanding and applying multiple strategies* (5th ed.). Elsevier.

Dhar, V., & Stein, R. M. (2016). *FinTech Platforms and Strategy*. https://ssrn.com/abstract=2892098http://creativecommons.org/licenses/by-nc/4.0/https://ssrn.com/abstract=2892098Electroniccopyavailableat:https://ssrn.com/abstract=2892098

Dooley, L. M. (2002). Case Study Research and Theory Building. *Advances in Developing Human Resources*, *4*(3), 335–354. https://doi.org/10.1177/1523422302043007

Economics References Committee. (2019). *Credit and hardship: report of the Senate inquiry into credit and financial products targeted at Australians at risk of financial hardship*. Commonwealth of Australia.

European Comission. (2010). *Employment in Europe 2010*. http://ec.europa.eu/social/e-newsletterwww.facebook.com/socialeurope

Expresso. (2023, February 28). *Klarna, uma das mais populares "startups" da Europa, acumula 940 milhões de prejuízos (mas CEO aumenta salário em 35%)*. Expresso. https://expresso.pt/economia/economia_tecnologia/2023-02-28-Klarna-uma-das-mais-populares-startups-da-Europa-acumula-940-milhoes-de-prejuizos--mas-CEO-aumenta-salario-em-35--a15ca28f

EY. (2023). *FinTech and Ecosystems*. EY.

Failory. (2023, February 3). *Klarna's Business Model: How Do They Make Money in 2023*. https://www.failory.com/blog/klarna-business-model

Financial Stability Board. (2022, May 5). *FinTech*. https://www.fsb.org/work-of-the-fsb/financial-innovation-and-structural-change/fintech/

Fong, D., Han, F., Liu, L., & Shek, A. (2021, November 9). *Seven technologies shaping the future of fintech*. McKinsey & Company. https://www.mckinsey.com/cn/our-insights/our-insights/seven-technologies-shaping-the-future-of-fintech

FourWeekMBA. (2022). *Tech Business Models: The Master Guide to the Business World in 2030*.

Gall, M. D., Borg, W. R., & Gall, J. P. (2003). *Educational Research: An Introduction* (7th ed.). Arnis E. Burvikovs.

Gapper, J. (2018, June 6). *How millennials became the world's most powerful consumers*. Financial Times. https://www.ft.com/content/194cd1c8-6583-11e8-a39d-4df188287fff

Gerrans, P., Baur, D. G., & Lavagna-Slater, S. (2022). Fintech and responsibility: Buy-now-pay-later arrangements. *Australian Journal of Management*, *47*(3), 474–502. https://doi.org/10.1177/03128962211032448

Gil, A. C. (2021). *Métodos e Técnicas de Pesquisa Social* (7th ed.). Atlas.

Gimpel, H., Rau, D., & Röglinger, M. (2018). Understanding FinTech start-ups – a taxonomy of consumer-oriented service offerings. *Electronic Markets*, *28*(3), 245–264. https://doi.org/10.1007/s12525-017-0275-0

Gomber, P., Koch, J. A., & Siering, M. (2017). Digital Finance and FinTech: current research and future research directions. *Journal of Business Economics*, *87*(5), 537–580. https://doi.org/10.1007/s11573-017-0852-x

Goyal, D., Varma, R., Rada, F., Pande, A., Jauregui, J., Corelli, P., Tripathi, S., Sénant, Y., Dab, S., Erande, Y., Choi, J., Koserski, J., Carrubba, J., Morris, N., Rotman, F., Risley, M., & Suri, S. (2023). *Reimagining the Future of Finance*.

Greene, J. C., Caracelli, V. J., & Graham, W. F. (1989). Educational Evaluation and Policy Toward a Conceptual Framework for Mixed-Method Evaluation Designs. In *Analysis Fall* (Vol. 11, Issue 3).

Guttman-Kenney, B., Firth, C., & Gathergood, J. (2022). *Buy Now, Pay Later (BNPL)...On Your Credit Card*. http://arxiv.org/abs/2201.01758

Gyori, D. (2018). Ten Trends Defining the Next Decade of Banking. *InforBanca: Revista Do Instituto de Formação Bancária*, 13–21. www.ifb.pt/cursos-ifb/formacao-intermedia

Hendelmann, V. (2023). *How Does Klarna Make Money? Dissecting Its Business Model*. https://productmint.com/the-klarna-business-model-how-does-klarna-make-money/

Hills, J. (2002). *The Struggle for Control of Global Communication: The Formative Century*. University of Illinois.

Jones, T. L., Baxter, M., & Khanduja, V. (2013). A quick guide to survey research. *Annals of the Royal College of Surgeons of England*, *95*(1), 5–7. https://doi.org/10.1308/003588413X13511609956372

Klarna. (2019, November 20). *Dare to be courageous at Klarna and you'll find a world of possibilities.* Klarna. https://www.klarna.com/careers/life-at-klarna/dare-to-be-courageous-at-klarna-and-youll-find-a-world-of-possibilities/

Klarna. (2020a, June 30). *Klarna says "Hola" in Spain*. Klarna. https://www.klarna.com/international/press/klarna-says-hola-in-spain/

Klarna. (2020b, October 20). *Klarna says "Buongiorno" in Italy and launches "Pay in 3."* Klarna. https://www.klarna.com/international/press/klarna-says-buongiorno-in-italy-and-launches-pay-in-3/

Klarna. (2021a, June 8). *Klarna says "Salut!" to France with unique shopping experience*. Klarna. https://www.klarna.com/international/press/klarna-says-salut-to-france-with-unique-shopping-experience/

Klarna. (2021b, August 18). *Klarna says "Cześć!" to Poland with "Pay in 30 days."* Klarna. https://www.klarna.com/international/press/klarna-says-czesc-to-poland-with-pay-in-30-days/

Klarna. (2021c, November 9). *Klarna says 'Dia dhuit' to Ireland and launches pay in 3*. Klarna. https://www.klarna.com/international/press/klarna-says-dia-dhuit-to-ireland-and-launches-pay-in-3/

Klarna. (2021d, November 17). *Klarna says 'Olá' to Portugal and launches 'Pay in 3.'* Klarna. https://www.klarna.com/international/press/klarna-says-ola-to-portugal-and-launches-pay-in-3/

Klarna. (2023). *Sobre nós*. Klarna. https://www.klarna.com/pt/sobre-nos/

Lee, I., & Shin, Y. J. (2018). Fintech: Ecosystem, business models, investment decisions, and challenges. *Business Horizons*, *61*(1), 35–46. https://doi.org/10.1016/j.bushor.2017.09.003

Lerner, T. (2013). *Mobile Payment*.

Lima, J. Á. de, & Pacheco, J. A. (2006). *Fazer Investigação: Contributos para a elaboração de dissertações e teses* (Vol. 6). Porto Editora.

Lott, D. (2021, March 8). *Now in the U.S.: Buy Now, Pay Later*. Federal Reserve Bank of Atlanta. https://www.atlantafed.org/blogs/take-on-payments/2021/03/08/now-in-the-us-buy-now-pay-later

Marvão, S. (2023, February 2). *«A Klarna nasceu para romper com o tradicionalismo do sector bancário»*. Business.IT. https://business-it.pt/2023/02/02/a-klarna-nasceu-para-romper-com-o-tradicionalismo-do-sector-bancario/

Milne, R., & Venkataramakrishnan, S. (2023, February 28). *Klarna's annual loss widens to $1bn but chief's pay jumps 35%*. Financial Times. https://www.ft.com/content/a3af3bbf-18a7-480c-ac42-f242c8c4eb57

Mohan, R. (2009). *Global financial crisis – causes, impact, policy responses and lessons*. London Business School.

Molina-Azorin, J. F. (2016). Mixed methods research: An opportunity to improve our studies and our research skills. *European Journal of Management and Business Economics*, *25*(2), 37–38. https://doi.org/10.1016/j.redeen.2016.05.001

Moosa, I. A. (2022). *Fintech - A Revolution or a Transitory Hype* (Inc. Edward Elgar Publishing, Ed.).

Navaretti, G. B., Calzolari, G., Franco, A., Numbers, P., Mansilla-Fernández, J. M., Dermine, J., Vives, X., Bofondi, M., Gobbi, G., Ferrarini, G., Xiang, X., Lina, Z., Yun, W., & Chengxuan, H. (2017). *FinTech and Banking, friends or foes?*

Nicoletti, B. (2017). *The Future of FinTech: Integrating Finance and Technology in Financial Services*. Palgrave Studios. http://www.springer.com/series/14627

Palmer-Derrien, S. (2020, July 27). *From the abacus to ApplePay: SmartCompany's brief history of fintech*. SmartCompany. https://www.smartcompany.com.au/startupsmart/analysis/history-of-fintech/

Peng, S. K., & Muki, C. T. (2022). *Recent Developments: Buy Now Pay Later in Singapore: Regulatory Gaps and Reform*. https://www.mas.gov.sg/news/speeches/2020/powering-the-next-stage-of-singapore-fintech

Petrovski, D., Pedro, J., & Neto, P. (2017). *The Importance of Target Audience Selection for Kano Model Effectiveness: A Case Study of Klarna Group*.

Pinto, F. A. C. (2020). *O Fenómeno das FinTech: O Caso da Revolut em Portugal*. Faculdade de Economia da Universidade do Porto.

Pollari, I. (2016). The Rise of FinTech: opportunities and challenges. *JASSA The Finsia Journal of Applied Finance*.

Portugal Fintech. (2022). *Portugal Fintech Report 2022*.

Sandra Halliday. (2023, March 1). *Klarna mantém-se no vermelho, mas aproxima-se da rentabilidade*. Fashion Network. https://pt.fashionnetwork.com/news/Klarna-mantem-se-no-vermelho-mas-aproxima-se-da-rentabilidade,1491888.html

Smyth, S. (2022). Can Buy Now Pay Later affect my credit score? *ClearScore*. https://www.clearscore.com/au/learn/credit-cards/can-buy-now-pay-later-affect-my-credit-score

Statista. (2023, February). *Total value of investments into fintech companies worldwide from 2010 to 2022*. Statista. https://www.statista.com/statistics/719385/investments-into-fintech-companies-globally/

The Economist. (2016). Getting more ambitious. *The Economist*. https://www.economist.com/finance-and-economics/2016/02/04/getting-more-ambitious

The Iyer Report. (2017, July 23). *FinTech: Where did it start?* The Iyer Report: Understanding FinTech . http://www.theiyerreport.com/2017/fintech-where-did-it-start/

Urs Rohner. (2016). *Why partnerships are appealing*.

Varga, D. (2018). FinTech, The New Era of Financial Services. *BUDAPEST MANAGEMENT REVIEW*. https://doi.org/10.14267/V

Wallach, O., & Amoros, R. (2021, December 8). *The World's Biggest Startups: Top Unicorns of 2021*. Visual Capitalist. https://www.visualcapitalist.com/the-worlds-biggest-startups-top-unicorns-of-2021/

Wentrup, R. (2016). The online–offline balance: internationalization for Swedish online service providers. *Journal of International Entrepreneurship*, *14*(4), 562–594. https://doi.org/10.1007/s10843-016-0171-2

Woodside, A. G. (2010). Bridging the chasm between survey and case study research: Research methods for achieving generalization, accuracy, and complexity. *Industrial Marketing Management*, *39*(1), 64–75. https://doi.org/10.1016/j.indmarman.2009.03.017

World Economic Forum. (2015). *The Future of FinTech: A Paradigm Shift in Small Business Finance*.

Yin, R. K. (2001). *Estudo de caso: planejamento e métodos*. Bookman.

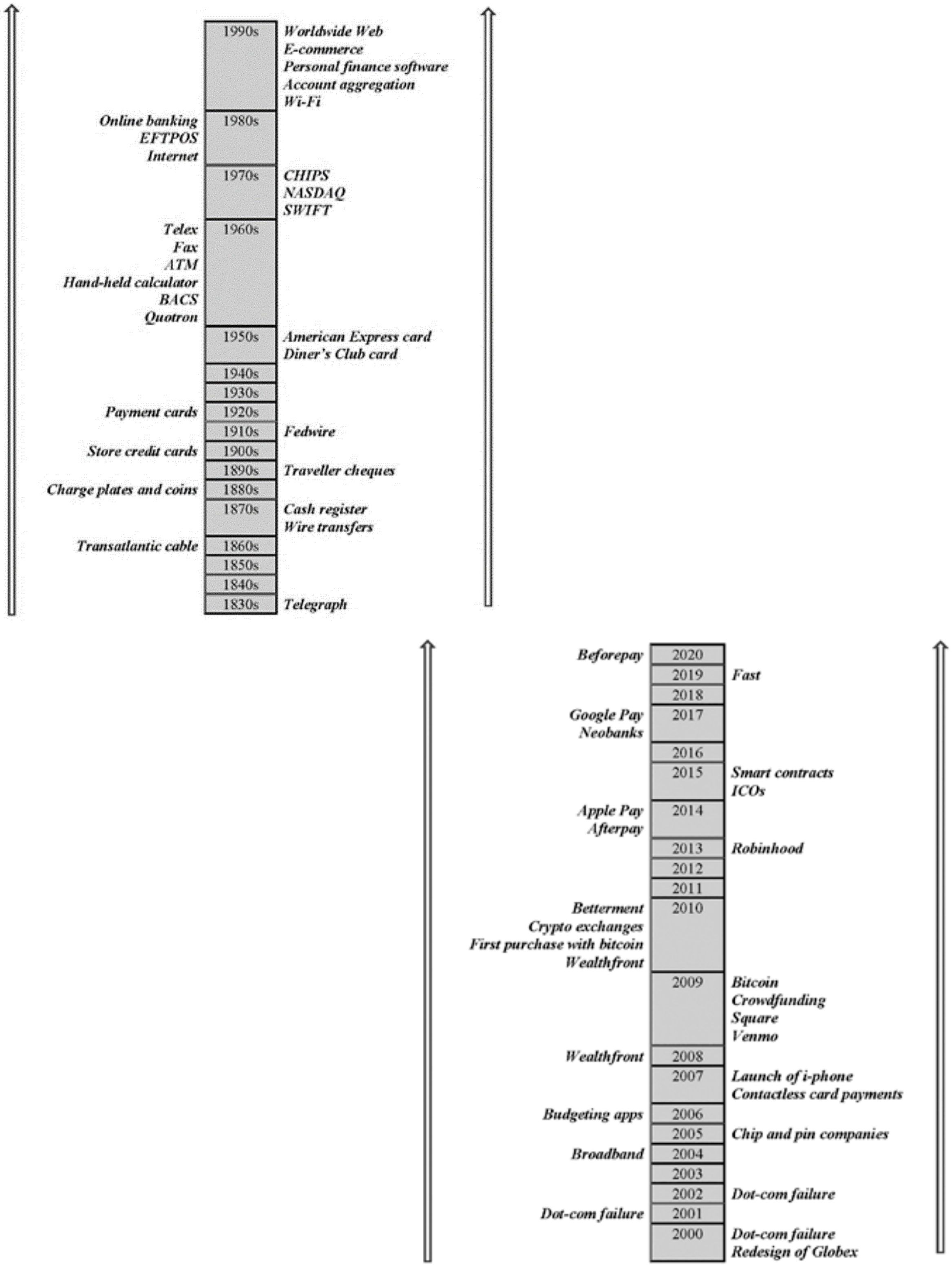
Yin, R. K. (2003). *Applications of Case Study Research* (Vol. 34). Sage Publications.

Yin, R. K. (2018). *Case Study Research and Applications: Design and Methods*. Sage Publications.

Zai. (2022). *The outlook for the global financial technology (fintech) industry*. Zai. https://www.hellozai.com/blog/the-outlook-for-the-global-financial-technology-fintech-industry

Appendix

Appendix A – Chronological time of the evolution of FinTech



Appendix B – Questionnaire

English (United Kingdom)

Introduction

User's perception on FinTechs and Buy Now Pay Later method

This survey is part of a research project within the scope of a Master's thesis in Business Economics and Competition. The main objectives of this study are to analyse consumers' perceptions of FinTechs and alternative payment methods, with emphasis on the Buy Now Pay Later (BNPL) method. In addition, a case study of the FinTech Klarna will also be done.

Thus, for the success of the research, I request your participation, taking into consideration that all information and data collected is confidential and anonymous, and will be used for academic purposes only. This survey can take up to 10 minutes to answer.

I thank you in advance for the cooperation, participation and honesty of your answers.

Note: it is possible to answer this survey either in English or Portuguese. If you want to change, select the entry on top where it says "Português" or "English (UK)" and modify to the one you prefer.

Mariana Casanova

Demographics

Demographics

What is your gender?

- Male
- Female
- Prefer not to say

How old are you?

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+

What is your highest level of education obtained?

- Secondary School
- Bachelor's Degree

- ○ Master's Degree
- ○ PhD
- ○ [ ] Other(s), please specify:

What is your country of residence?

[ ]

What is your monthly gross income?

- ○ < €1,000
- ○ €1,000-1,499
- ○ €1,500-1,999
- ○ €2,000-2,499
- ○ €2,500-2,999
- ○ €3,000-3,499
- ○ > 3,500€

What is your professional occupation?

- ○ Student
- ○ Working Student
- ○ Employed
- ○ Unemployed
- ○ [ ] Other(s), please specify:

User's perception of FinTechs

User's perception of FinTechs

FinTech (financial technology) refers to companies that use technology in a disruptive and innovative way to provide financial products, services or solutions that are more efficient, accessible and user-friendly. An example of one of the most well-known FinTechs in Europe is Revolut.

Have you ever heard of FinTechs?

- ○ No
- ○ Yes

Have you ever used financial services offered by a FinTech company?

- ○ No
- ○ Yes

Would you consider using financial services from a FinTech company in the future?

- ◯ No
- ◯ Yes

If you answered No, can you explain why?

- ☐ Lack of trust
- ☐ Preference for personal relationships
- ☐ Need for specialized services
- ☐ Risk aversion
- ☐ Comfort with traditional services
- ☐ Lack of access to technology
- ☐ Privacy and security issues
- ☐ Other(s), please specify:

According to your personal experience, what do you consider to be the main advantages of the financial services offered by FinTechs? (Select all that apply)

- ☐ Convenience
- ☐ Inovation
- ☐ Security
- ☐ Financial Access
- ☐ Reliance
- ☐ Other(s), please specify:

As a consumer, what are the main reservations you still have about FinTechs? (Select all that apply)

- ☐ Lack of Security (financial information, data security)
- ☐ Lack of Reliability (e,g, when compared to traditional financial institutions)
- ☐ User Experience (e.g. interface less intuitive)
- ☐ Regulation (which can affect consumer protection and financial security)
- ☐ Lack of Historical Background (e,g, when compared to traditional financial institutions)
- ☐ Other(s), please specify:
- ☐ I don't have any reservations

Consumer's shopping habits & User's perception of alternative payment solutions

Consumer's shopping habits & User's perception of alternative payment solutions

As a consumer, which of the following factors most influences your buying decisions? Please rate from most to least important when purchasing something.

Price

Quality

Brand

Friend's recommendation

Other(s) (please specify):

How often do you often make impulsive purchases?

Note: an impulse purchase can be defined as a purchase made without prior planning, influenced by momentary emotions or immediate desires.

- Never
- Rarely
- Sometimes
- Often
- Always

Retailers can boost online sales by offering much-needed financial flexibility through alternative payment methods, such as proximity payments (e.g. NFC, QR code), mobile payments (e.g. Apple Pay), Buy Now Pay Later. What are the main reasons why you use alternative payment methods? (Select all that apply)

- More security
- Faster transactions
- Lower fees

- [ ] Convenience
- [ ] Other(s), please specify:
- [ ] Never used alternative payment methods

Which of the following is most important to you when choosing a payment method?

- ○ Security
- ○ Transaction speed
- ○ Availability of costumer support
- ○ Low fees
- ○ Convenience

Which of the following describes your opinion of alternative payment methods compared to traditional payment methods (credit cards, debit cards, etc)?

- ○ Much better
- ○ Somewhat better
- ○ About the same
- ○ Somewhat worse
- ○ Much worse

What are the main disadvantages you see in alternative payment methods? (select all that apply)

- [ ] Lack of acceptance by many merchants

- ☐ Limited security potential
- ☐ Lack of familiarity with the method
- ☐ Transaction limitations
- ☐ ________ Other(s), please specify:
- ☐ I don't see any disadvantage

Buy Now Pay Later

Buy Now Pay Later

Under the FinTech umbrella, there's a financial service called Buy Now Pay Later (BNPL) method. BNPL is an alternative payment method that allows customers to purchase goods and services and then pay for them over time, often with little or no interest.

Have you ever used the "Buy Now Pay Later" (BNPL) method to make a purchase?

- ○ Yes, frequently
- ○ Yes, sometimes
- ○ I have, but not anymore
- ○ Never used it

What is the main reason why you would use the BNPL method?

- ○ Better ability to pay for products and services

- ◯ Better payment flexibility
- ◯ Better access to credit
- ◯ Lower fees
- ◯ Convenience
- ◯ ______ Other(s), please specify:

What are the main disadvantages you see in the BNPL method? (select all that apply)

- ☐ High interest rates
- ☐ Risk of excessive debt
- ☐ Lack of clarity on loan terms
- ☐ Negative impact on credit score
- ☐ ______ Other(s), please specify:
- ☐ I don't see any disadvantage

How concerned are you about the potential risks of using BNPL, such as impact on credit score, excessive debt or hidden fees?

- ◯ Very concerned
- ◯ Somewhat concerned
- ◯ Neutral
- ◯ Not very concerned
- ◯ Not at all concerned

Would you be more likely to make a purchase from a retailer if they offer alternative payment methods?

- Yes, it encourages me to spend more
- No, it does not encourage me to spend more

How do you think BNPL has affected the relationship between merchants and consumers?

- It has strengthened the relationship, as consumers are more likely to make purchases with BNPL
- It has weakened the relationship, as BNPL encourages impulsive purchases that consumers may later regret
- It has had no significant impact on the relationship
- I am not sure

How do you think the availability of BNPL affects merchants' risk of consumers failing their payment dates or even not paying?

- It increases the risk of non-payment or defaults, as consumers may overextend themselves financially
- It decreases the risk of non-payment or defaults, as merchants have more information about consumers' creditworthiness
- It has no significant impact on the risk of non-payment or defaults
- I am not sure
- Other(s), please specify:

What do you believe are the potential risks in the market which are associated with the increased availability of BNPL? (Select all that apply)

- ☐ Merchants may suffer from increased default rates and lower profit margins
- ☐ Consumers may become overextended financially and accumulate debt
- ☐ Both consumers and merchants may suffer from increased fraud and security risks
- ☐ I am not sure
- ☐ ______ Other(s), please specify:

How do you think the availability of BNPL affects consumers' perception of the affordability of products?

- ○ It makes products appear more affordable, as consumers can spread out the cost over time
- ○ It makes products appear less affordable, as consumers are paying interest on the purchase price
- ○ It has no significant impact on consumers' perception of affordability
- ○ I am not sure

One of the main questions about the BNPL industry is its yet lack of regulation. What do you think might be the main concerns? (Select all that apply)

- ☐ Lack of transparency regarding the rates and interest charged
- ☐ Risk of consumers getting into excessive debt
- ☐ Lack of protection for consumers in case of issues with BNPL providers
- ☐ Fraud potential

☐ Other concerns (please specify):

Do you believe this lack of regulation is (or might become) a problem?

- Yes, it is a significant problem
- Yes, it is a problem, but it is not of great concern
- No, it is not a problem
- I am not sure

Do you believe that the lack of regulation in the BNPL industry affects the financial stability of the market?

- Yes, it does affect
- No, it does not affect
- I am not sure

Do you think that government regulation is necessary for the BNPL industry?

- Yes, it is necessary
- No, it is not necessary
- I am not sure

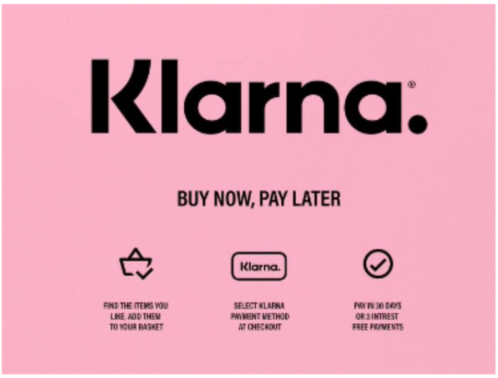
What type of solutions you think can help dealing with the lack of regulation in the BNPL industry? (select all that apply)

- [ ] Introduction of government regulation
- [ ] Self-regulation of BNPL companies (e.g. by creating codes of conduct, standards, recommended practices)
- [ ] More transparency when sharing information with consumers (e.g. with interest rates)
- [ ] Promote consumer education (to help consumers better understand how BNPL works)
- [ ] ____________ Other(s), please specify:

Klarna

Klarna

One company that has experienced rapid growth in recent years and which offers BNPL services is Klarna. It is a Swedish FinTech company that provides payment processing services for merchants and partners with major retailers such as H&M, Adidas, Sephora. Have you used Klarna's BNPL service before?



- ◯ Yes
- ◯ No

If you answered "No" to the previous question, what is the primary reason why you have not used Klarna services?

- ◯ I am not familiar with this company and which services they offer
- ◯ I prefer to pay for purchases in full upfront
- ◯ I am not comfortable with the idea of using a Buy Now Pay Later service
- ◯ ________ Other, please specify:

If you were to use Klarna services, what would be the most appealing aspects of the service to you? (Select all that apply)

- ☐ Ability to pay for purchases over time
- ☐ Interest-free payment option

☐ Convenience and ease of use
☐ ______ Other, please specify:

If you were to use Klarna services, what would be your primary concern?

○ Accumulating debt or overspending
○ Hidden fees or charges
○ Negative impact on credit score
○ ______ Other, please specify:

How often do you use Klarna services?

○ Every time I make a purchase
○ Every time I want to make a purchase with a higher value
○ Sometimes, but not always
○ Rarely
○ Never

Would you be more likely to make a purchase from a retailer if they offer Klarna BNPL service as a payment option?

○ Yes
○ No
○ It wouldn't affect my purchasing decision

Which of the following factors are important to you when deciding wether to use Klarna BNPL service? (Select all that apply)

- ☐ Interest rates and fees
- ☐ Payment schedule flexibility
- ☐ Ease of use
- ☐ Reputation of the company offering the service
- ☐ _____ Other, please specify:

Have you ever had difficulty paying back a Klarna BNPL installment?

- ○ Yes
- ○ No

If you answered yes, what was the reason?

- ○ I didn't have enough money to make the payment
- ○ I didn't understand the payment schedule or terms
- ○ _____ Other, please specify:

In case of any questions please contact: mffac@iscte-iul.pt