Redefining Personal Credit Models: Strategies for Green Finance and Energy Efficiency Adoption

Diogo Mimoso

Dissertation written under the supervision of Professor Rute Xavier

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Author: Diogo Ferreira Mimoso

Abstract

Sustainability and environmental responsibility have become a priority in the world we live in, that affects all of us and all businesses. Financial companies are also included in this behavioural change, and right now they must rethink their credit models, to keep up with governmental rules and consumer tastes. This study aims to how UNIBANCO can adapt or create new offerings to embrace its green sustainable financial ideas.

This thesis examines three research questions: the existing gaps and opportunities in the green finance market (RQ1), consumer perceptions and attitudes regarding green credit for energy-efficient projects (RQ2), and the optimization of marketing and communication strategies to improve consumer engagement with sustainable financial products (RQ3).

203 valid answers were used in the quantitative survey elaborated for this thesis. To complement the survey, an intensive literature review was also done to bring relevant data to this study. The statistical investigation showed that the people are highly motivated about the environment and its perceived financial and social advantages. The consumers are really interested in green financing even though its adoption is low, and the lack of information and marketing campaigns influence their decision to change their costumes.

This study offers pragmatic recommendations for UNIBANCO to provide competitive green credit solutions, improve communication transparency, and utilize digital platforms for targeted engagement. These strategies seek to establish UNIBANCO as an essential player in sustainable finance, aligning its credit offerings with global sustainability objectives and customer demands.

Keywords: Green finance, sustainable credit, consumer perceptions, marketing strategies, energy efficiency.

Título: Redefinir Modelos de Crédito Pessoal: Estratégias de Financiamento Verde e Implementação de Soluções Energéticas Eficientes

Autor: Diogo Ferreira Mimoso

Abstrato

A sustentabilidade e a responsabilidade ambiental tornaram-se uma prioridade no mundo em que vivemos, que nos afeta a todos e a todas as empresas. As empresas financeiras também estão incluídas nesta mudança comportamental e neste momento devem repensar os seus modelos de crédito, para acompanharem as regras governamentais e os gostos dos consumidores. Este estudo visa como o UNIBANCO pode adaptar ou criar ofertas para abraçar novas ideias financeiras verdes sustentáveis.

Esta tese examina três questões de investigação: as lacunas e oportunidades existentes no mercado financeiro verde (RQ1), as perceções e atitudes dos consumidores em relação ao crédito verde para projetos de eficiência energética (RQ2), e a otimização das estratégias de marketing e comunicação para melhorar o envolvimento do consumidor com produtos financeiros sustentáveis (RQ3).

Foram utilizadas 203 respostas válidas no levantamento quantitativo elaborado para esta tese. Para complementar a pesquisa, foi também feita uma revisão intensiva da literatura para trazer dados relevantes para este estudo. A investigação estatística demonstrou que as pessoas estão altamente motivadas em relação ao ambiente e às suas vantagens financeiras e sociais percebidas. Os consumidores estão realmente interessados no financiamento verde, embora a sua adoção seja baixa e a falta de informação e de campanhas de marketing influenciem a sua decisão de mudar os seus hábitos.

Este estudo oferece recomendações para o UNIBANCO fornecer soluções competitivas de crédito verde, melhorar a transparência da comunicação e utilizar plataformas digitais para um envolvimento direcionado. Estas estratégias procuram estabelecer o UNIBANCO como uma entidade essencial nas finanças sustentáveis.

Palavras-chave: Finanças verdes, crédito sustentável, perceções do consumidor, estratégias de marketing, eficiência energética.

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Pain is temporary: it may last for a minute, or an hour, or a day, or even a year, but eventually it will subside, and something else will take its place... if you quit however, it will last forever – Eric Thomas

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1. Introduction

Environmental, social, and governance (ESG) concerns have transformed the global banking system like never before. Businesses that previously prioritized profit are now recognizing the importance of sustainability. Current research states that "the concept of long-term value creation means that a company aims to optimise its financial, social, and environmental value in the long term, making it prepared for the transition to a more sustainable economic model" (Schoenmaker & Schramade, 2019 The demand for products that improve society and the environment while making money makes this transformation crucial. The private sector is mobilising novel financial mechanisms that generate profit and social and environmental advantages to achieve the Sustainable Development Goals (SDGs) (Gallicchio & Marszalek, 2023).

Financial institutions, particularly UNIBANCO, a subsidiary of UNICRE, a major source of personal loans without purpose, are at a critical moment. To meet the goals for survival, something needs to change. Going green with loans and other credit goods that are aligned with ESG needs to happen so that we can deal with global environmental problems and changing consumer tastes. Personal credit at UNIBANCO is handled in a way that is both standard and helpful. In this market, UNIBANCO needs a new plan. But how can they make that happen?

New market regulations are now promoting ESG principles in banking. EBA and ECB have issued that banks must incorporate ESG elements into their management and future endeavours (La Torre et al., 2024). This makes the financial institutions and banks to rethink their models and products, where the main objective is to run away from the conventional credit models, and to adapt into a sustainable one.

The European Green Deal’s 2050 carbon neutrality goal is pushing this swift rapidly. Also, the EU is supporting numerous financial institutions to achieve sustainability goals, including green credit loans to fund green projects related to energy-efficiency and renewable energy. These solutions help UNIBANCO to meet their requirements and in the promotion of a carbon-neutral economy.

This thesis will analyse a green and sustainable financial solution using energy-efficient technologies that satisfies UNIBANCO’s positioning. It will be easier to finance energy-saving equipment like electric vehicle chargers and heat pumps for example, using green credit. With this new product UNIBANCO’s reputation will increase with the customers and will also

encourage the clients to start using sustainable technologies. Additionally, competitive interest rates and flexible periods will make this a tempting option for consumers. Thus, this new product requires a review of maximum interest rates, paperwork criteria, and credit categories to comply with Bank of Portugal standards.

This product differentiates itself from typical green loans by meeting Portuguese consumers' unique needs, especially given Portugal's 8.8% energy reliance in 2021 (Eurostat). To follow the European Green Deal, this new product is in line with the transition to reach carbon neutrality by 2050.

1.1 About UNIBANCO

UNIBANCO is a financial institution, empowered by UNICRE, specialized in personal credit and credit card issuance. UNIBANCO distinguishes itself from the competition with their personal loans without a specific purpose, therefore giving much more liberty to their clients compared to other banks or financial institutions (UNICRE, 2024).

UNIBANCO provides an extensive selection of credit card solutions in addition to personal credit, designed to increase consumer purchasing power while ensuring financial flexibility. This financial institution’s customer-centric strategy has established it as a reputable entity in the industry, recognised for its innovation, transparency, and dedication to delivering customised financial services that address the changing requirements of its customers (UNICRE, 2024).

1.2. Problem Statement

The financial industry is making big sustainable changes and more ESG principes are being adapted to their operations. UNIBANCO will need to change or create a new personal credit model to adapt to the sustainable goals that have been set, while making profit and following European regulation.

Also, the attitudes of consumers related to green financial products remain unclear and with a few studies. That makes the transition even harder for energy-efficient technologies. There is an increasing necessity to comprehend these perceptions to facilitate product adoption. Failure to address these consumer concerns and knowledge gaps could impede the market acceptance of even well-structured sustainable finance products.

This thesis examines the multiple challenges of connecting UNIBANCO's personal credit offerings with sustainability goals while effectively engaging consumers. The research examines how UNIBANCO may enhance its product line to comply with changing regulatory requirements and consumer expectations for sustainable financial solutions. Additionally, it examines the success of marketing and communication methods in developing consumer awareness and supporting the adoption of green credit products. By addressing these elements, this research intends to provide actionable insights to position UNIBANCO as a competitive and reputable participant in the sustainable financing market.

1.2.1. Purpose of study and research questions

This study intends to investigate the redefinition of the current personal credit model to effectively incorporate principles of green and sustainable finance, especially regarding the financing of energy-efficient technologies. It seeks to analyse consumer perceptions and attitudes regarding sustainable financial products that enhance energy efficiency, highlighting critical factors that affect their adoption. Marketing and communication enhancing strategies are an important path to success to attract customers to green credit products.

RQ 1: How can the existing personal credit model be redefined to effectively integrate green and sustainable finance principles, with a focus on financing energy-efficient technologies?

RQ 2: What are the consumer perceptions and attitudes towards green and sustainable financial products, specifically in the context of financing energy-efficient solutions?

RQ 3: How can marketing and communication strategies be optimized to better educate and attract consumers towards green and sustainable credit offerings for energy-efficient projects?

1.2.2. Academic and Managerial Relevance

This study is important for both academics and managers because it connects the idea of sustainable finance with how it is used in the financial services industry. There is already a lot of research on how to add ESG principles to regular financial goods. This work adds to that research and fills in the gaps in sustainable finance, environmental economics, and the smart

use of ESG in credit models (Schoenmaker & Schramade, 2019; La Torre et al., 2024.) This thesis analyses the theory behind sustainable finance and a future implementation of green financial principles in institutions like UNIBANCO.

It also offers insights that will help UNIBANCO to adjust their personal credits to a more sustainable offering that follows regulations of European Green Deal. This will help the institutions to get to know customer perceptions and attitudes related to green products, that will help the communication and marketing strategies between institution and client. To make UNIBANCO a valued player in the financial industry, those are the steps that are contributing to a more green and financial respected entity.

2. Literature Review

2.1. Integration of Green Finance and ESG Principles in Personal Credit Models

The financial sector is experiencing a substantial transition as Environmental, Social, and Governance (ESG) principles are included into financial products, such as personal credit. This transition is driven by regulatory requirements and increasing consumer demand for sustainability. Institutions such as UNIBANCO must modify their credit models to conform to international sustainability goals (Edmans & Kacperczyk, 2022). There is a strategic opportunity to follow rules while appealing to consumers that care about the environment when we talk about green credit and ESG models (Horn, 2024).

The EU Taxonomy and the European Green Deal highlight sustainable finance as a major player to combat climate change (Brühl, 2021). The European Central Bank (ECB) and the European Banking Authority (EBA) recommend the integration of ESG considerations into financial products (La Torre et al., 2024). For UNIBANCO, commitment to these principles is essential for complying with emerging sustainability criteria.

Regulatory restrictions present problems but also show the strategic advantages of providing sustainable loan products. When an institution embraces ESG norms becomes appealing to the consumers and investors that prioritize green finance and sustainability. (Bhatnagar & Sharma, 2022; Krastev & Krasteva-Hristova, 2024). Reduced interest rates for green behaviours by institutions might amplify sustainable credit offerings (Kumar et al., 2024).

Millennials and Gen Z are more favourable in pursuing financial goods that match with green principles (Horn, 2024). Providing environmentally friendly personal finance choices, such as loans for energy-efficient home enhancements or electric vehicles, enables institutions like UNIBANCO to align with consumer expectations and increase market share (Yameen et al., 2024). Even if ensuring that the funds are allocated for sustainable products is more difficult compared to the tracking of credit without a finality, institutions must have ways of creating adaptable credit products that seek sustainability, like energy-efficient enhancements (Dadabada, 2024; Mandas et al., 2024). In addition, consumer behaviour frequently diverges from stated sustainability choices, highlighting the need for effective communication techniques to enhance knowledge and involvement (Gonzalez-Ruiz et al., 2024). Incentives such as diminished interest rates or prizes for achieving environmental objectives may promote adoption (Gherghina, 2024).

Technological improvements, especially in FinTech, provide options to assess and analyse the environmental impact of credit products. Big data and machine learning enable institutions to implement dynamic interest rates that reduce as borrowers reach sustainability milestones (Kumar et al., 2024; Edmans & Kacperczyk, 2022).

2.1.1. Evolution of Green Finance and ESG in the Financial Sector

Green finance has become a more common name in the last few years due to the climate change, having evolved from financing renewable energy to becoming an important component of conventional financial strategies (Bhatnagar & Sharma, 2022). The reason to this change is driven by problems with policies and the demand of the clients for long-term investments (Edmans & Kacperczyk, 2022). Green finance now includes more ESG factors within financial solutions, which attracts more investors. The European Green Deal has created a legislative framework that requires financial institutions to meet global sustainability goals, keeping them competitive in an environmentally conscious market (La Torre et al., 2024).

Financial institutions and banks are being affected by their sustainable profiles nowadays. La Torre et al. (2024) relates that the adherence to ESG standards is related to the investors trust and loyalty to them. Financial institutions that offer green finance may attract sustainable consumers and investors (Krastev & Krasteva-Hristova, 2024).

The increasing awareness that financial institutions like UNIBANCO are important to a healthy economy promotes green financing. A quick way to UNIBANCO increase and improve its

personal credits is to combine sustainable practices, regulations and technology to succeed (Gherghina, 2024).

2.1.2. Challenges and Opportunities in Redefining Credit Models

Both businesses and costumers are trying to be greener, so they try to find financing goods that will fulfil that need of being more responsible with the environment, while earning money (Roy, 2023).

The biggest challenge right now is the uncertainty of ESG principles in the conventional financial systems. Right now, a complexity arises: ESG factors might change the borrower risk profile without modifying their repayment capability (Tsao et al., 2017). Studies indicate that firms with inadequate environmental performance encounter elevated expenses and regulatory hazards, potentially impacting their financial status (Chen et al., 2017).

A significant obstacle in modifying credit models to integrate green finance principles is the requirement for accurate, standardized metrics to evaluate ESG performance. As of today, there is no organized framework for evaluating the environmental or social impact of a company, even though the growing demand for green products (Roy, 2023). With that being said, the clients' judgments will become more inconsistent due to the lack of uniformity of ESG data in the credit scoring models.

However, accessing the constant growth of sustainable products in the market, makes this a great opportunity for the sector since consumers are becoming more environmental conscious (La Torre et al., 2024).

2.1.3. Regulatory Frameworks and Compliance in Green Finance

The rising demand for sustainability in the financial sector led to the quick creation of regulatory frameworks designed to align investment and credit models with environmental objectives. The European Union's Green Deal represents a significant advancement in this domain, providing explicit guidelines for the financial sector to foster environmental sustainability. Sustainable investments are crucial to the European Green Deal to achieve the goal of climate neutrality by the year 2050 (Brühl, 2021).

The regulation of green finance varies from country to country, as emphasize by Nedopil et al. (2021). The European Union follows one set of sustainable regulations, like the EU taxonomy, while China's framework is state imposed environmental objectives. With, it poses as a

challenge to put in practice a more sustainable set of regulations that can be applied world-wide.

A full disclosure is major when talking about green finance regulations, that's why Steuer and Tröger (2022) emphasize it by saying that the more transparency exists, the more the market control by the institutions. One way of becoming more responsible is making the companies being open about the activities that they practice. As a result of the EU Sustainable Finance Disclosure Regulation (SFDR), financial companies must give information's about their investments and if there are following the sustainable framework previous agreed upon. Also, the significance of international regulatory frameworks such as the Task Force on Climate-related Financial Disclosures (TCFD) and the International Sustainability Standards Board (ISSB) highlights the global initiative to establish uniform standards for green finance (Nedopil et al., 2021). These frameworks seek to standardise the reporting of climate-related risks and opportunities by financial institutions, which is essential for directing global capital towards sustainable investments.

2.2. Consumer Perceptions and Attitudes Towards Green and Sustainable Financial Products

In recent years, there has been an increased demand for green products, including financial services (Vehmas et al., 2024; Hael et al., 2023), as consumers are more aware of the consequences of their actions for the environment. Although many consumers express a preference for sustainable products, their willingness to pay (WTP) for these products does not always match their preferences, especially when they are priced higher (Vehmas et al., 2024).

The study by Vehmas et al. (2024) on consumer attitudes towards sustainable business models in Finland, based on a qualitative approach, revealed that the use of green practices by consumers is influenced by some barriers, such as price and trust in products. This discovery corresponds with extensive research that recognises price sensitivity as a considerable obstacle to the adoption of green products, particularly within the financial sector (Vehmas et al., 2024; Hael et al., 2023).

Additionally, the willingness to pay for sustainable products differs among product categories and consumer demographics. Since the consumer knows that by purchasing green products they are helping the environment, they are willing to pay more. In order to get to more people, change their traditional habits and shift for a greener behaviour, UNIBANCO will need to educate and show that the sustainable way is the only way that makes sense in the future.

2.2.1. Factors Influencing Consumer Adoption of Green Financial Products

A key factor influencing the adoption of green financial products is environmental awareness and commitment to sustainability on the part of consumers. Individuals who value sustainability in their daily routines tend to more readily adopt green financial products, especially when they are aligned with their values. Personal values, such as environmental responsibility and commitment to climate change mitigation, have a significant influence on green consumer behaviour (Sangroya & Nayak, 2017).

Furthermore, research by Tseng et al. (2020) highlights the importance of the triple approach—people, planet and profit—in consumer decision-making. Consumers are attracted to green financial products that cover these three dimensions, offering both financial returns and positive impacts on society and the environment. For financial institutions like UNIBANCO, this reinforces the need to create products that harmonize financial incentives with explicit environmental benefits to promote their adoption.

Social influence constitutes another crucial element in the acceptance of green financial products. Confetto et al. (2023) point out that younger generations, especially Generation Z, are more likely to adopt green products when they are recommended by peers or social networks that promote sustainability. Social media significantly amplifies sustainability messages, as consumers are increasingly influenced by the actions and opinions of their peers regarding environmental issues. UNIBANCO could increase interest in green financial products by using social media platforms to create communities focused on sustainability.

Sangroya and Nayak (2017) found that social norms and peer behaviour substantially influence consumers' propensity to adopt green energy products. This observation also applies to green financial products, as consumers may be more inclined to sign up to these products if they see other members of their community doing so. This social dynamic is particularly relevant when the target audience is younger, socially conscious consumers such as millennials and Generation Z.

Finally, Sangroya and Nayak (2017) say that the people who buy ecological products believe they are valued and useful. For financial institutions like UNIBANCO, this underlines the need to clearly communicate the financial advantages of green financial products in addition to their ecological benefits. Products that integrate sustainability with economic benefits are more likely to succeed in a competitive market.

2.2.2. Role of Consumer Awareness and Education in Sustainable Finance

A crucial factor affecting consumers' behaviour towards sustainable financial products is financial literacy. Consumers with a superior understanding of financial concepts are more likely to recognize the long-term benefits of sustainable financial products. Chen et al. (2020) state that sustainable financial education significantly improves consumers' ability to evaluate and select products that correspond to their principles of sustainability and financial responsibility.

Studies show that the more the people are educated about money and how to use it, the more the consumer is satisfied. Chen et al. (2020) supports that financial institutions should invest their money into educate people about the benefits of green finance, encouraging them to use it more often. Making people aware of sustainable financial products is an essential way to encourage them to use them. The research by Ellahi et al. (2023) demonstrates that individuals who have knowledge about green banking practices are more predisposed to adopt environmentally responsible financial solutions.

Stauropoulou et al. (2022) concluded that customers tend to be more loyal and trust more to financial institutions that support sustainable initiatives, like SDG's (Sustainable Development Goals). When consumers are informed about the broad environmental and social implications of their financial decisions, they are more likely to participate in green financial products and align their investments with sustainability goals.

In the contemporary digital era, platforms like mobile banking applications and social media are vital instruments for enhancing consumer awareness regarding sustainable financial products. Ellahi et al. (2023) emphasise the significance of utilising digital platforms to facilitate consumer access to information regarding sustainable banking practices. By providing clear, accessible, and interactive educational content, financial institutions can more effectively engage consumers, thereby enhancing interest in sustainable finance. This digital strategy is especially pertinent for younger demographics, including millennials and Generation Z, who are more inclined to interact with financial institutions via digital platforms.

2.3. Strategic Marketing and Communication for Promoting Green Financial Products

Green marketing is not only about the promotion of green products but also includes being sincere and building reliability. Ottman (2011) believes that brands have the responsibility to show people how they feel about the world we are living in. Companies should avoid

greenwashing (when companies lie about their actual green behaviour), because they can and will lose the consumer's trust and it might be very difficult to getting it back. Right now, sustainability should be a main priority.

Dangelico and Vocalelli (2017) assert that effective green marketing enhances environmental quality while fulfilling customer expectations, thereby providing a competitive advantage. Effective promotion of green financial products necessitates the implementation of omnichannel marketing strategies. Chen et al. (2021) claim that the integration of traditional and digital marketing strategies improves green competitiveness through sustained customer engagement.

Digital platforms represent a huge responsibility in helping customers to understand how green finance can help our future lives and our own finances (Chen et al., 2021). Storytelling constitutes an essential element of green marketing. Ottman (2011) states that storytelling creates emotional connections between consumers and brands by communicating significant sustainability initiatives. Financial institutions can employ storytelling to convey the environmental and social ramifications of their green financial products, illustrating their contribution to sustained value for consumers and the planet. Attractive storytelling cultivates brand loyalty and establishes financial institutions as leaders in sustainable finance.

Incorporating sustainability into marketing strategies offers financial institutions a unique competitive edge. Green marketing distinguishes financial products in a marketplace where consumers increasingly value environmental accountability.

2.3.1. Effective Marketing Strategies for Sustainable Finance

Businesses should prioritise credible and consistent communication, highlighting the tangible environmental impacts of their products (Chen et al., 2021). An effectively implemented green marketing strategy that articulates the enduring environmental advantages of financial products such as green loans is crucial for cultivating consumer trust (Rahayu, 2024).

Digital marketing enables institutions to customise their green financial product offerings according to the distinct values and behaviours of their consumers. Digital tools can significantly enhance customer retention by providing real-time, personalised experiences across various platforms (Rahayu, 2024). Organisations that incorporate digital marketing tools, including CRM systems, to provide personalised content have experienced enhanced return on investment and heightened customer loyalty (Dangelico & Vocalelli, 2017).

Storytelling is one creative way of creating a sustainable future where people are green and how their actions improve our planet. A good story can make costumers connected in a deeper level (Ottman, 2011). This not only helps the brand, but also our future. A good communication and narrative are important to reduce the carbon footprint (Ottman, 2011; Rahayu, 2024).

2.3.2. Leveraging Technology and Digital Platforms for Consumer Engagement

Based on the topic here analysed, an article from Hollebeek and Macky (2019) claims that digital content marketing is the key for consumer engagement, since the communication can reach much more people compared to the traditional media. With a good marketing strategy, businesses and consumers can create a strong relation that connects them in perpetuity.

The usage of AI in marketing is almost a demand in all businesses. AI facilitate personalization based on consumers habits, creating a more personalized experience and therefore, a more pleasant connection and journey with the brand (Babatunde et al., 2024). If the business knows how the consumer behaves and what it likes, the marketing will be more effective (Viglia et al., 2018).

Another benefit of AI in the banking industry is the personalized marketing experience for the client, making it more adequate for each customer individually, with the finality of winning the loyalty and trust of the costumer (Viglia et al., 2017; Babatunde et al., 2024)

2.3.3. Measuring the Impact of Communication on Consumer Behaviour

The paper by Pérez et al. (2013) indicates that a good Corporate Social Responsibility (CSR) influences the costumer into be more loyal to the business, because they feel positive about their actions and communication. This indicates that efficient communication of CSR initiatives can improve customer satisfaction and reinforce brand loyalty, emphasising the essential function of transparent and credible corporate communication in influencing consumer behaviour.

Sama (2019) examines the subtopic "Measuring the Impact of Communication on Consumer Behaviour," demonstrating that various media platforms substantially affect consumer awareness, interest, and purchasing decisions. If the banks and financial institutions like UNIBANCO are aware of the platforms where their target audience spends more time, they can

create a better communication and therefore have better results with their campaigns, where the main objective is to promote green financial products (Sama, 2019).

2.4. The Role of Financial Incentives in Promoting Energy Efficiency

One of the main issues when we are talking about energy-efficient adoption is the investment that is behind that: Berkouwer and Dean (2022) tell us that low-income households face a bigger challenge in the adoption of green products since they are more expensive and also because their credit line is smaller compared to households who are more financially stable. Their solution to this problem is to make accessible loans to those people who have more difficulty on getting their loans accepted, since it's a green transition they are making (Berkouwer & Dean, 2022).

The European Union has the responsibility on making it easier for everybody to transition to green products who consume less energy and have less harm to the planet. For example, tax reductions can make it more seductive to consumers who are with doubts of making that transition. In Denmark and Italy, tax credits for boilers proved to be particularly effective, whereas in France and Poland, subsidies for compact fluorescent lamps (CFL bulbs) produced superior outcomes. The disparity in effectiveness indicates that UNIBANCO needs to account for country-specific consumer preferences and regulatory contexts when formulating its green credit products (Markandya et al., 2009).

Additionally, Risch (2020) analysed the influence of energy tax credits on renovation choices in France, discovering that although these incentives augmented renovation spending, their effect on the decision to renovate was minimal. This indicates that consumers predisposed to invest in energy efficiency are more likely to augment their expenditures when offered fiscal incentives.

Spain is a good example of incentives from the government. Tchorzewska (2024) tell us how Spain's Environmental Investment (EI) tax credit makes people wanting to shift to devices that use less energy, harming less the planet. This implementation helps the small businesses who usually have more difficulty in investing money.

2.5. Theory of Planned Behaviour

Ajzen (1991) came up with the Theory of Planned Behaviour (TPB) where he states that the behaviour is shaped by 3 primary factors: attitude towards the behaviour, subjective norms, and perceived behavioural control. All these behaviours can and will affect behavioural intentions

that predict their behaviour. Within this framework, attitude indicates an individual's positive or negative assessment of engaging in the behaviour; subjective norms include the perceived social pressure to either engage in or stay away from the action; and perceived behavioural control is related to the individual's perception of the simplicity or complexity associated with executing the behaviour (Ajzen, 1991).

Greenslade and White (2005) used the TPB model to predict volunteerism, demonstrating that the three components—attitude, subjective norms, and perceived behavioural control—substantially anticipated behavioural intentions and actual participation. Perceived behavioural control appeared as a significant predictor of intentions, consistent with findings that indicate its essential role in deciding whether individuals engage in environmentally helpful actions.

3. Methodology

In this chapter, the research methodology will be presented. It provides the methodological framework that has been designed to answer the related research questions:

RQ 1: How can the existing personal credit model be redefined to effectively integrate green and sustainable finance principles, with a focus on financing energy-efficient technologies?

RQ 2: What are the consumer perceptions and attitudes towards green and sustainable financial products, specifically in the context of financing energy-efficient solutions?

RQ 3: How can marketing and communication strategies be optimized to better educate and attract consumers towards green and sustainable credit offerings for energy-efficient projects?

3.1. Research Design

The initial phase of the research included performing a literature review to comprehend key concepts related to green credit, customer perceptions towards green financial products, strategic marketing and communication for their promotion, and energy efficiency. We formulated the survey questions for our data collection strategy based on this review.

The second phase required evaluating the current green credit products available in the market. An exhaustive examination of competitors was performed to find out the characteristics of the green credit products they provide as well as find sector best practices. The competitor's study analysis and interpretation with the literature review, helped us to answer Research Question 1. That analyses made us more aware of the market and how it runs.

A survey based on the Theory of Planned Behaviour was made in the third phase, to understand the consumer choices on green credit for energy-efficient products. The data obtained from this survey can help us to tackle Research Question 2 (RQ2), with also the help of secondary data previously analysed. To address Research Question 3 (RQ3), we will combine secondary data, mainly from the literature review, with the primary data obtained from the survey responses.

3.2. Theory of Planned Behaviour Application

The Theory of Planned Behaviour has been modified to correspond with the framework of sustainable finance for this research. The attitude component assesses consumer attitudes of green finance, highlighting its environmental advantages, financial savings, and conformity with sustainability standards (Bamberg, 2003; Moser, 2015).

Subjective forms have the focus on social factors with also society pressures to be accountable for the environment (Zhang et al., 2014). On the other hand, perceived behavioural control has been broadened to incorporate practical issues like the appliance for credit and how easy is to find green credit options (Wang & Wang, 2016).

3.3. Data Collection Methods

This section talks about the methodologies that were analysed and used for this thesis. 18 banks and financial institutions were analysed to look at their sustainable practises and trying to identify market deficiencies and what the future holds for UNIBANCO.

There was also developed an online quantitative survey, developed by Ajzen (1991), named the Theory of Planned Behaviour, to ask customers their opinions on green credit. The data collected was only for the ones living in Portugal who knew about personal credit products.

After, the data was analysed via SPSS, using descriptive and inferential statistics, to identify insights that will be valued in the future of green credit

3.3.1. Benchmarking

Reaching the benchmarking analyses, it was important for the study to have analysed UNIBANCO'S competitors, to identify green financial products in their offering. As previously said, 18 banks and financial institutions were analysed, to look at their interest rates, APR (TAN), APRC (TAEG) as well as other pertinent information. APR (Annual Percentage Rate) indicates the annual expense of a loan to the borrower, articulated as a percentage, including interest and some fees. APRC (Annual Percentage Rate of Charge) extends to include all expenses related to the credit, such as processing fees, so offering a more comprehensive understanding of the total cost to the borrower. This thorough analysis enabled us to enhance our market comprehension and verify how UNIBANCO could distinguish itself from rivals by developing sustainable financial products.

3.3.2. Online Survey

In order to find answers to this study, an online survey has been done to collect data from people who can help us reach important insights in the end of this thesis. Utilising Likert-scale questions facilitated uniform and standardised responses (Bamberg, 2003).

The survey was segmented into six sections. The initial segment concentrated on perceptions of green credit, evaluating participants' opinions regarding the utilisation of credit for energy-efficient and renewable energy initiatives. In the second part, subjective rules and social factors that might affect decision-making were looked at (Zhang et al., 2014). The third part looked at perceived behavioural control by asking people how easy they thought it was to get and use green credit (Wang & Wang, 2016). The fourth part of this poll is an attention checker to make sure that the people who are answering are paying attention and are motivated to do so. The fifth section evaluated environmental concern, emphasising the participants' dedication to environmental protection and its possible influence on their behaviour (Bamberg, 2003). The sixth section examined participants' intentions to utilise green credit, specifically for funding energy efficiency initiatives. The concluding section prior to the demographic questions evaluated participants' awareness and communication preferences concerning green credit for energy efficiency initiatives.

The purpose of these questions was to find out how much people knew about green credit choices, how clear they thought communication from financial institutions was, and how they liked to get information about these financial products. The goal of these questions is to find

out how well current communication strategies are at informing consumers and what platforms could be improved to better engage and teach them about green financial goods. Lastly, demographic questions were added to find out the participants' ages, genders, education, incomes, and occupations.

The idea of doing an online survey was to reach as many people as we could, to have a wider reach (Evans & Mathur, 2005). The participants were told that the survey was confidential, and that they would take 5 minutes to complete it. Before the respondents start the questionnaire, a small introduction was made with the meaning of green credit, energy efficiency and renewable energy, to make sure that the respondents are well informed and don't confuse the topics. In the form of incentive, we provided a 20€ FNAC gift card to the respondents that gave us their email address in the end of the survey

3.3.3. Sample of Study

The goal of this study is to find out how customers' opinions and choices affect the use of green credit products, particularly for funding energy-efficient projects. For this reason, the primary target group is people who live in Portugal and know about personal credit products, since this study is about green and sustainable finance.

3.3.4. Data Analysis

The survey data will be analysed utilising SPSS. SPSS will be utilised to perform descriptive statistics, including means and frequencies, to organise the principal variables. In addition, inferential statistical methods, including regression analysis, will be utilised to investigate the correlations among consumer perceptions, attitudes, and the intention to adopt green credit for energy efficiency. This methodology will facilitate the identification of key predictors of consumer behaviour and clarify the factors affecting the adoption of sustainable financial products.

4. Results Analysis

4.1. Benchmarking

18 banks and financial institutions were analysed based on how important and big they are in the Portuguese market. This list was also previously delivered to UNIBANCO and approved, since there are numerous financial institutions in Portugal.

The investigation indicated that merely four institutions — Cetelem, Caixa Geral de Depósitos, Millennium BCP, and Activo Bank — offer credit solely for energy efficiency projects. This study provides insights into optimal practices and market deficiencies, facilitating proposals to transform UNIBANCO's personal credit model to successfully integrate green and sustainable finance principles.

UNIBANCO	ABANCA	SANTANDER
BANCO CTT	CETELEM	MONTEPIO
BANKINTER	BANCO BEST	BPI
COFIDIS	UNIVERSO	NOVO BANCO
CREDIBOM	CAIXA GERAL DE DEPÓSITOS	CAIXA AGRÍCULA
WIZINK	MILLENNIUM BCP	ACTIVO BANK

Table 1. Analysed Financial Institutions

Financial Institution	Product	Minimum Amount of Credit	Maximum Amount of Credit	Minimum Term	Maximum Term	APR (TAN)	APRC (TAEG)	Interest Rate Regime
For 10,000.00€ credit at 30 months								
Cetelem	Energy Efficiency Credit	2,500.00€	75,000.00€	12	84	8.5	10.8	Fixed
Caixa Geral de Depósitos	Personal Credit - Environmentally Friendly House	2,500.00€	75,000.00€	24	84	5.956	9.1	Fixed
Millennium BCP	Sustainable Buildings	1,000.00€	75,000.00€	24	120	4.5	8.1	Fixed
Activo Bank	Eco Active Credit	1,000.00€	75,000.00€	24	48	5	6.8	Fixed

Table 2. Comparation Table between 4 Banks

A further disparity exists in interest rates and loan conditions. Competitors such as Millennium BCP and Caixa Geral de Depósitos offer more advantageous interest rates and adaptable terms, enhancing the appeal of their green credit products. UNIBANCO's conventional credit terms may lack attractiveness for financing energy-efficient projects. UNIBANCO should think about offering lower interest rates and longer terms for paying back loans. For instance, Millennium BCP offers terms up to 120 months with an APR as low as 4.5%. UNIBANCO could try to match or beat this deal to make its products more accessible.

UNIBANCO could also raise its starting fees and commissions. Some institutions, like Cetelem, charge big opening fees, while others, like Caixa Geral de Depósitos and Millennium BCP, offer choices without starting fees. By making opening accounts free or lowering initial

commissions by a large amount, UNIBANCO could make itself more competitive and make it easier for people to afford to invest in energy investing. (See Appendix 3)

A further potential improvement is the incorporation of adaptable and customizable insurance alternatives. Competitors like Cetelem and Activo Bank offer supplementary insurance with their credit offerings. UNIBANCO could offer customized insurance packages that safeguard both the investment in energy efficiency and the financial stability of the borrower, enhancing the overall appeal of the credit product to consumers. (Appendix 3)

Ultimately, the alignment of sustainability and branding constitutes a vital domain for enhancement. Cetelem and other banks reinforce their dedication to sustainability by participating in initiatives like the Net-Zero Banking Alliance and aligning their operations with climate objectives.

Since UNIBANCO is still not a financial institution that can be connected to green practises, they can proceed to adopt a new approach with a renewed green communication to the consumers. Having in mind the European Green Deal, UNIBANCO can incorporate its new green credit policies, improving their position in the eyes of the consumers. This project could be improved by using eco-friendly products and starting recycling programs for things like credit cards, like Cetelem does.

Features should be assessed to make UNIBANCO's green credit product more appealing and competitive. This includes competitive interest rates and prolonged terms, with an APR of 4.5%–6% and repayment durations up to 120 months. Reducing or eliminating opening costs would simplify and attract more customers. Value would also increase with sustainability incentives like refunds for energy-efficient investments or eco-friendly company discounts. Different loan amounts between €1,000 and €75,000 would accommodate different project sizes. Synchronizing marketing campaigns with UNIBANCO's commitment to sustainability and emphasizing product environmental and social impacts would boost product appeal.

A major deficiency in UNIBANCO’s existing credit model is the lack of a dedicated green credit product aimed at energy efficiency. This limitation is especially significant when contrasted with the four identified competitors, which offer distinctly defined green credit offerings. UNIBANCO can establish a specialized green credit line that encourages energy-efficient home enhancements and renewable energy initiatives, targeting environmentally aware consumers by promoting the product as a sustainable alternative.

The benchmarking analysis indicated that UNIBANCO's primary opportunity is to develop a specialized green credit product featuring competitive interest rates, reduced fees, adaptable insurance options, sustainability incentives, and robust branding aligned with environmental objectives. By implementing these best practices, UNIBANCO can establish itself as an example in sustainable finance while meeting the increasing need for energy-efficient financial solutions.

4.2. Survey Analysis

4.2.1 Survey Data Description

The survey initially received 268 answers. After the exclusion of 51 incomplete responses, the final response rate was 81%, resulting in 217 completed responses. Ten responses were discarded because not meeting the attention check question, and four were deleted because the participants were minors, resulting in 203 eligible results for analysis.

There were 203 accepted answers, and most of them were from women (55.2%, n=112). The age group with the most people was 18 to 24 years old (33.5%, n=68), followed by 45 to 54 years old (33.0%, n=67) (Table 1).

A bachelor's degree or equivalent was the most popular level of education (48.8%, n=99). A secondary education or equivalent came in second (24.6%, n=50), and a master's degree or equivalent came in third (24.6%, n=50). The most frequently reported income brackets were between €1501 and €2500 (19.7%, n=40), €2501 and €3500 (19.2%, n=39), and €501 to €1500 (15.3%, n=31), although a significant portion of respondents chose not to disclose their income (25.6%, n=52) (Table 1).

Most participants were full-time employees (53.7%, n=109), followed by students (22.7%, n=46). The majority resided in the Lisbon and Vale do Tejo region (82.8%, n=168) (Table 3).

Género	Feminino	112	55,2%
	Masculino	91	44,8%
Idade	18-24 anos	68	33,5%
	25-34 anos	20	9,9%
	35-44 anos	9	4,4%
	45-54 anos	67	33,0%
	55-64 anos	26	12,8%
	Mais de 65 anos	13	6,4%
Escolaridade	Menos do que o ensino secundário	2	1,0%
	Ensino secundário	50	24,6%
	Licenciatura ou equivalente	99	48,8%
	Mestrado ou equivalente	50	24,6%
	Doutoramento ou equivalente	2	1,0%
Rendimentos	Abaixo de 500€	19	9,4%
	501 - 1500€	31	15,3%
	1501 - 2500€	40	19,7%
	2501 - 3500€	39	19,2%
	3501 - 4500€	11	5,4%
	4501 - 5500€	5	2,5%
	Acima de 5500€	6	3,0%
	Prefiro não dizer	52	25,6%
Situação profissional	Empregado a tempo inteiro	109	53,7%
	Estudante	46	22,7%
	Trabalhador-Estudante	11	5,4%
	Trabalhador independente	15	7,4%
	Reformado	20	9,9%
	Prefiro não dizer	2	1,0%
Região	Alentejo	15	7,4%
	Algarve	2	1,0%
	Centro	9	4,4%
	Lisboa e Vale do Tejo	168	82,8%
	Norte	3	1,5%
	Não resido em Portugal	2	1,0%
	Prefiro não dizer	4	2,0%

Table 3. Absolute frequency (n) and percentage (%) of respondents by demographic data. Source: Survey Data

4.2.2. Sources of Information

Among the various options for seeking information about green credit, renewable energy, and energy efficiency, social media was the most frequently mentioned (71.4%, n=145), followed by television (59.6%, n=121) and websites (53.2%, n=108) (Table 4).

Newsletters por email	53	26,1%
Sites	108	53,2%
Televisão	121	59,6%
Redes sociais	145	71,4%
Outros	10	4,9%

Table 4. Absolute frequency (n) and percentage (%) of respondents by sources of information. Source: Survey Data

4.2.3. Green Credit Perceptions

The majority strongly agreed with the statement “I like the idea of using green credit to finance renewable energy” (59.6%, n=121), with an average response of 6.16±1.292. Another answer that got a strong yes from these individuals was "I like the idea of using green credit to finance energy efficiency" (54.7%, n=111), with an average score of 6.16±1.202. “I have a positive

attitude toward using green credit to finance sustainable projects" was strongly agreed with by 55.7% of participants (n=113), with an average answer of 6.15±1.247. Also, a lot of them highly agreed with the statement "I like the idea of using green credit to fund environmentally friendly projects" (60.6%, n=123), with an average score of 6.34±1.019 (Table 5).

		n	%	Média	Desvio Padrão
Eu gosto da ideia de utilizar crédito verde para financiar energias renováveis	2	8	3,9%	6,16	1,292
	3	2	1,0%		
	4	12	5,9%		
	5	27	13,3%		
	6	33	16,3%		
	Concordo Totalmente	121	59,6%		
Eu gosto da ideia de utilizar crédito verde para financiar eficiência energética	2	4	2,0%	6,16	1,202
	3	6	3,0%		
	4	12	5,9%		
	5	20	9,9%		
	6	50	24,6%		
	Concordo Totalmente	111	54,7%		
Tenho uma atitude favorável em relação ao uso de crédito verde para financiar projetos sustentáveis	2	6	3,0%	6,15	1,247
	3	6	3,0%		
	4	8	3,9%		
	5	24	11,8%		
	6	46	22,7%		
	Concordo Totalmente	113	55,7%		
Acredito que o crédito verde pode contribuir para um futuro mais sustentável	2	2	1,0%	6,34	1,019
	3	2	1,0%		
	4	10	4,9%		
	5	20	9,9%		
	6	46	22,7%		
	Concordo Totalmente	123	60,6%		

Table 5. Absolute frequency (n) and percentage (%) of respondents' answers regarding green credit. Source: Survey Data

4.2.4. Green Credit Opinion of Family and Friends

When asked, "I think that the people who matter to me think it is important for me to think about green financing for renewable energy," "strongly agree" came in first (26.1%, n=53), then "strongly disagree" (25.1%, n=51) and finally "strongly disagree" (41.92%, n=39), for a total of 5 responses with an average of 5.26±1.513.

Similarly, for the statement, "I believe that the people who are important to me think it is essential for me to consider green financing for energy efficiency," the most common response was "strongly agree" (26.6%, n=54), followed by 6 (22.7%, n=46) and 4 (20.2%, n=41), with an average response of 5.19±1.531. Regarding the statement, "The people whose opinions I value would prefer that I choose green credit," the most common response was "strongly agree" (25.6%, n=52), followed by 6 (25.1%, n=51) and 4 (20.7%, n=42), with an average response of 5.30±1.447. For the statement, "The people around me encourage the use of sustainable credit options," the most common response was 6 (23.6%, n=48), followed by 4 (23.2%, n=47) and 5 (18.7%, n=38), with an average response of 4.82±1.583 (Table 6).

		n	%	Média	Desvio Padrão
Considero que as pessoas	2	14	6,9%	5,26	1,513
que são importantes para	3	12	5,9%		
mim pensam que seria	4	39	19,2%		
essencial eu considerar	5	34	16,7%		
financiamento verde para	6	51	25,1%		
energias renováveis	Concordo Totalmente	53	26,1%		
Considero que as pessoas	2	10	4,9%	5,19	1,531
que são importantes para	3	22	10,8%		
mim pensam que seria	4	41	20,2%		
essencial eu considerar	5	30	14,8%		
financiamento verde para	6	46	22,7%		
eficiência energética	Concordo Totalmente	54	26,6%		
As pessoas cujas opiniões	2	12	5,9%	5,30	1,447
valorizo prefeririam que eu	3	8	3,9%		
optasse por crédito verde	4	42	20,7%		
	5	38	18,7%		
	6	51	25,1%		
	Concordo Totalmente	52	25,6%		
As pessoas à minha volta	Discordo Totalmente	4	2,0%	4,82	1,583
incentivam o uso de opções	2	18	8,9%		
de crédito sustentáveis	3	16	7,9%		
	4	47	23,2%		
	5	38	18,7%		
	6	48	23,6%		
	Concordo Totalmente	32	15,8%		

Table 6. Absolute frequency (n) and percentage (%) of respondents' answers regarding the opinions of family and friends about using green credit financing. Source: Survey Data

4.2.5. Ability to Apply for Green Credit Financing

For the statement, "I believe I have the ability to apply for green credit to finance a renewable energy project," the most common response was "strongly agree" (25.1%, n=51), followed by 6 (19.2%, n=39), 5 (18.2%, n=37), and 4 (17.7%, n=36), with an average response of 5.00±1.696.

For the statement, "I believe I have the ability to apply for green credit to finance an energy efficiency project," the most common response was "strongly agree" (34.0%, n=69), followed by 4 (16.7%, n=34), 5 (15.8%, n=32), and 6 (15.8%, n=32), with an average response of 5.20±1.732.

For the statement, "If it were up to me, I would certainly use green credit," the most common response was "strongly agree" (40.9%, n=83), followed by 5 (20.2%, n=41), 5 (19.2%, n=39), and 6 (11.8%, n=24), with an average response of 5.68±1.438.

For the statement, "I have the resources, time, and willingness to apply for green credit for renewable energy," the most common response was 4 (25.1%, n=51), followed by 5 (20.7%, n=42) and "strongly agree" (17.2%, n=35), with an average response of 4.49±1.727.

For the statement, "I have the resources, time, and willingness to apply for green credit for energy efficiency products," the most common response was 5 (23.6%, n=48), followed by 4 (18.2%, n=37) and 6 (16.7%, n=34), with an average response of 4.48±1.727.

Finally, for the statement, “Green credits are available at the financial institutions I usually use,” the most common response was 4 (26.1%, n=53), followed by “strongly agree” (19.2%, n=39) and 6 (17.7%, n=36), with an average response of 4.81±1.563 (Table 7).

		n	%	Média	Desvio Padrão
Acredito que tenho a capacidade de solicitar crédito verde para financiar um projeto de energia renovável	Discordo Totalmente	6	3,0%	5,00	1,696
	2	14	6,9%		
	3	20	9,9%		
	4	36	17,7%		
	5	37	18,2%		
	6	39	19,2%		
	Concordo Totalmente	51	25,1%		
Acredito que tenho a capacidade de solicitar crédito verde para financiar um projeto de eficiência energética	Discordo Totalmente	4	2,0%	5,20	1,732
	2	16	7,9%		
	3	16	7,9%		
	4	34	16,7%		
	5	32	15,8%		
	6	32	15,8%		
	Concordo Totalmente	69	34,0%		
Se dependesse apenas de mim, eu certamente utilizaria um crédito verde	Discordo Totalmente	2	1,0%	5,68	1,438
	2	6	3,0%		
	3	8	3,9%		
	4	24	11,8%		
	5	41	20,2%		
	6	39	19,2%		
	Concordo Totalmente	83	40,9%		
Tenho recursos, tempo e disposição para solicitar crédito verde para energias renováveis	Discordo Totalmente	12	5,9%	4,49	1,727
	2	18	8,9%		
	3	22	10,8%		
	4	51	25,1%		
	5	42	20,7%		
	6	23	11,3%		
	Concordo Totalmente	35	17,2%		
Tenho recursos, tempo e disposição para solicitar crédito verde para produtos de eficiência energética	Discordo Totalmente	10	4,9%	4,48	1,727
	2	26	12,8%		
	3	20	9,9%		
	4	37	18,2%		
	5	48	23,6%		
	6	34	16,7%		
	Concordo Totalmente	28	13,8%		
Créditos verdes estão disponíveis nas instituições financeiras que costumo utilizar	Discordo Totalmente	4	2,0%	4,81	1,563
	2	8	3,9%		
	3	30	14,8%		
	4	53	26,1%		
	5	33	16,3%		
	6	36	17,7%		
	Concordo Totalmente	39	19,2%		

Table 7. Absolute frequency (n) and percentage (%) of respondents' answers regarding their ability to apply for green credit financing. Source: Survey Data

4.2.6. Environmental Concerns

The majority strongly agreed with the statement, “I am concerned about the environmental impact of my consumption decisions” (57.1%, n=116), followed by 6 (17.2%, n=35) and 5 (12.8%, n=26), with an average of 6.14±1.219.

They also strongly agreed with the statement, “I would be willing to reduce my energy consumption to help protect the environment” (51.2%, n=104), followed by 6 (30.0%, n=61), with an average of 6.19±1.106.

For the statement, “Green credit can contribute to the energy transition and carbon emission reduction,” the most common response was “strongly agree” (42.4%, n=86), followed by 6 (34.5%, n=70), with an average of 6.04±1.114.

Lastly, they strongly agreed with the statement, “I believe protecting the environment is everyone’s responsibility” (87.7%, n=178), with an average of 6.79±0.637 (Table 8).

		n	%	Média	Desvio Padrão
Eu estou preocupado com o impacto ambiental das minhas decisões de consumo	2	4	2,0%	6,14	1,219
	3	2	1,0%		
	4	20	9,9%		
	5	26	12,8%		
	6	35	17,2%		
	Concordo Totalmente	116	57,1%		
Estaria disposto a reduzir o meu consumo de energia para ajudar a proteger o meio ambiente	2	4	2,0%	6,19	1,106
	3	2	1,0%		
	4	12	5,9%		
	5	20	9,9%		
	6	61	30,0%		
	Concordo Totalmente	104	51,2%		
O crédito verde pode contribuir para a transição energética e redução de emissões de carbono	2	2	1,0%	6,04	1,114
	3	8	3,9%		
	4	8	3,9%		
	5	29	14,3%		
	6	70	34,5%		
	Concordo Totalmente	86	42,4%		
Acredito que proteger o meio ambiente é responsabilidade de todos	4	6	3,0%	6,79	,637
	5	6	3,0%		
	6	13	6,4%		
	Concordo Totalmente	178	87,7%		

Table 8. Absolute frequency (n) and percentage (%) of respondents' answers regarding environmental concerns. Source: Survey Data

4.2.7. Consideration of Applying for Green Credit Financing

The most popular answer to the statement "I plan to think about using green credit to pay for renewable energy in the coming months" was 4, which came in at 23.6% (n=48). It was followed by "extremely likely," which came in at 19.2% (n=39), and "extremely unlikely," which came in at 18.2% (n=37). The average answer was 4.22±2.028.

For the statement, "I'm thinking about using green credit to pay for energy efficiency improvements in the next few months," the most popular answer was 4, given by 50 people (24.6%). This was followed by "extremely likely," which came in at 20.2% (41 people), and "extremely unlikely," which came in at 18.2% (37 people). The average answer was 4.17±2.065.

When asked, "I am willing to switch to more sustainable credit options, such as green credit, for environmental reasons," "extremely likely" came in first (31.0%, n=63), then 4 (23.2%, n=47), and finally 5 (18.7%, n=38), for a mean score of 5.20±1.683.

People who answered, "I plan to choose green credit for my next renovation project or clean energy installation" mostly said "extremely likely" (28.6%, n=58), then 6 (20.7%, n=42) and 5 (18.7%, n=38), for a mean score of 5.08±1.853.

Finally, for the statement, “I plan to use green credit in the near future due to its positive contribution to the environment,” the most common response was “extremely likely” (27.6%, n=56), followed by 5 (23.6%, n=48) and 4 (17.7%, n=36), with an average response of 5.01±1.750 (Table 9).

		n	%	Média	Desvio Padrão
Pretendo considerar o uso de crédito verde ao financiar energias renováveis nos próximos meses	Extremamente improvável	37	18,2%	4,22	2,028
	2	4	2,0%		
	3	25	12,3%		
	4	48	23,6%		
	5	28	13,8%		
	6	22	10,8%		
	Extremamente provável	39	19,2%		
Pretendo considerar o uso de crédito verde ao financiar melhorias de eficiência energética nos próximos meses	Extremamente improvável	37	18,2%	4,17	2,065
	2	10	4,9%		
	3	21	10,3%		
	4	50	24,6%		
	5	24	11,8%		
	6	20	9,9%		
	Extremamente provável	41	20,2%		
Estou disposto a mudar para opções de crédito mais sustentáveis, como o crédito verde, por motivos ecológicos	Extremamente improvável	10	4,9%	5,20	1,683
	2	8	3,9%		
	3	4	2,0%		
	4	47	23,2%		
	5	38	18,7%		
	6	33	16,3%		
	Extremamente provável	63	31,0%		
Tenho a intenção de escolher crédito verde para meu próximo projeto de renovação ou instalação de energia limpa	Extremamente improvável	20	9,9%	5,08	1,853
	2	4	2,0%		
	3	8	3,9%		
	4	33	16,3%		
	5	38	18,7%		
	6	42	20,7%		
	Extremamente provável	58	28,6%		
Planeio utilizar um crédito verde no futuro próximo devido à sua contribuição positiva ao meio ambiente	Extremamente improvável	12	5,9%	5,01	1,750
	2	10	4,9%		
	3	12	5,9%		
	4	36	17,7%		
	5	48	23,6%		
	6	29	14,3%		
	Extremamente provável	56	27,6%		

Table 9. Absolute frequency (n) and percentage (%) of respondents' answers regarding their consideration of applying for green credit financing. Source: Survey Data

4.2.8. Familiarity with Green Credit and the Communication of Information by Financial Institutions.

When asked about their level of familiarity with green credit options specifically designed to support energy efficiency projects, the most common response was “very unfamiliar” (27.1%, n=55), followed by 5 (17.7%, n=36), 3 (16.7%, n=34), and 4 (15.3%, n=31) (Table 10).

For the question, “To what extent do you consider financial institutions’ communication clear in conveying the benefits of green credit for energy efficiency projects,” the most common response was 4 (26.1%, n=53), followed by 3 (17.7%, n=36), and 2 (16.7%, n=34) (Table 8).

		n	%	Média	Desvio Padrão
Qual o seu nível de familiaridade com as opções de crédito verde especificamente concebidas para apoiar projetos de eficiência energética	Muito pouco familiar	55	27,1%	3,11	1,711
	2	28	13,8%		
	3	34	16,7%		
	4	31	15,3%		
	5	36	17,7%		
	6	19	9,4%		
Até que ponto considera que a comunicação das instituições financeiras é clara em transmitir os benefícios do crédito verde para projetos de eficiência energética	Discordo Totalmente	23	11,3%	3,61	1,614
	2	34	16,7%		
	3	36	17,7%		
	4	53	26,1%		
	5	28	13,8%		
	6	22	10,8%		
	Concordo Totalmente	7	3,4%		

Table 10. Absolute frequency (n) and percentage (%) of respondents' answers regarding familiarity with green credit and the communication of information by financial institutions. Source: Survey Data

4.2.9. Correlational analysis

Using Pearson's correlation test, with a significance level of 5%, a positive correlation was observed between respondents' familiarity with green credit options specifically designed to support energy efficiency projects and the other variables studied, except for the statements “I believe green credit can contribute to a more sustainable future,” “I am concerned about the environmental impact of my consumption decisions,” “Green credit can contribute to the energy transition and reduction of carbon emissions,” and “I believe protecting the environment is everyone’s responsibility,” where the significance probabilities (p) were greater than 5% (Table 11).

The more familiar respondents were with green credit options designed to support energy efficiency projects, the higher their agreement with using green credit, their environmental awareness, their appreciation of the opinions of family and friends about green credit, and the

likelihood of applying for green credit and using it for energy efficiency and renewable energy solutions.

Regarding how respondents perceived the clarity of financial institutions' communication about the benefits of green credit for energy efficiency projects, a positive correlation was observed with the other variables studied, except for "I believe protecting the environment is everyone's responsibility" (Table 11).

The more people who said that financial institutions clearly explained the benefits of green credit for energy efficiency projects, the more likely they were to agree with using green credit, care about the environment, and value what family and friends had to say about it. They were also more likely to apply for green credit and use it for energy efficiency and renewable energy solutions.

		Qual o seu nível de familiaridade com as opções de crédito verde especificamente concebidas para apoiar projetos de eficiência energética	Até que ponto considera que a comunicação das instituições financeiras é clara em transmitir os benefícios do crédito verde para projetos de eficiência energética
Eu gosto da ideia de utilizar crédito verde para financiar energias renováveis	r	,169*	,267**
Eu gosto da ideia de utilizar crédito verde para financiar eficiência energética	r	,148*	,245**
Tenho uma atitude favorável em relação ao uso de crédito verde para financiar projetos sustentáveis	r	,171*	,207**
Acredito que o crédito verde pode contribuir para um futuro mais sustentável	r	,016	,202**
Considero que as pessoas que são importantes para mim pensam que seria essencial eu considerar financiamento verde para energias renováveis	r	,297**	,343**
Considero que as pessoas que são importantes para mim pensam que seria essencial eu considerar financiamento verde para eficiência energética	r	,319**	,319**
As pessoas cujas opiniões valorizo prefeririam que eu optasse por crédito verde	r	,259**	,346**
As pessoas à minha volta incentivam o uso de opções de crédito sustentáveis	r	,400**	,415**
Acredito que tenho a capacidade de solicitar crédito verde para financiar um projeto de energia renovável	r	,345**	,339**
Acredito que tenho a capacidade de solicitar crédito verde para financiar um projeto de eficiência energética	r	,332**	,370**
Se dependesse apenas de mim, eu certamente utilizaria um crédito verde	r	,207**	,230**
Tenho recursos, tempo e disposição para solicitar crédito verde para energias renováveis	r	,352**	,424**
Tenho recursos, tempo e disposição para solicitar crédito verde para produtos de eficiência energética	r	,409**	,436**
Créditos verdes estão disponíveis nas instituições financeiras que costumo utilizar	r	,297**	,549**
Eu estou preocupado com o impacto ambiental das minhas decisões de consumo	r	,009	,191**
Estaria disposto a reduzir o meu consumo de energia para ajudar a proteger o meio ambiente	r	,172*	,236**
O crédito verde pode contribuir para a transição energética e redução de emissões de carbono	r	,127	,216**
Acredito que proteger o meio ambiente é responsabilidade de todos	r	,035	-,014
Pretendo considerar o uso de crédito verde ao financiar energias renováveis nos próximos meses	r	,318**	,444**
Pretendo considerar o uso de crédito verde ao financiar melhorias de eficiência energética nos próximos meses	r	,393**	,463**
Estou disposto a mudar para opções de crédito mais sustentáveis, como o crédito verde, por motivos ecológicos	r	,271**	,364**
Tenho a intenção de escolher crédito verde para meu próximo projeto de renovação ou instalação de energia limpa	r	,381**	,355**
Planeio utilizar um crédito verde no futuro próximo devido à sua contribuição positiva ao meio ambiente	r	,249**	,373**

*Legenda: r –coeficiente de correlação; p – probabilidade de significância; *p<0,05; **p<,01.*

Table 11. Correlation between familiarity with green credit and financial institutions' communication with the other variables. Source: Survey Data

Because the p-values were less than 5%, there was a positive correlation seen between the green credit questions and the other factors. The more people agreed with using green credit, the more they valued their family and friends' opinions about it, the more environmentally conscious they were, and the more likely they were to apply for green credit and use it for energy efficiency and renewable energy solutions (Table 12).

		Eu gosto da ideia de utilizar crédito verde para financiar energias renováveis	Eu gosto da ideia de utilizar crédito verde para financiar eficiência energética	Tenho uma atitude favorável em relação ao uso de crédito verde para financiar projetos sustentáveis	Acredito qu o crédito verde pode contribuir para um futuro mais sustentáve
Considero que as pessoas que são importantes para mim pensam que seria essencial eu considerar financiamento verde para energias renováveis	r	,407**	,369**	,535**	,541**
Considero que as pessoas que são importantes para mim pensam que seria essencial eu considerar financiamento verde para eficiência energética	r	,440**	,387**	,563**	,450**
As pessoas cujas opiniões valorizo prefeririam que eu optasse por crédito verde	r	,507**	,467**	,507**	,515**
As pessoas à minha volta incentivam o uso de opções de crédito sustentáveis	r	,452**	,398**	,455**	,303**
Acredito que tenho a capacidade de solicitar crédito verde para financiar um projeto de energia renovável	r	,432**	,404**	,520**	,494**
Acredito que tenho a capacidade de solicitar crédito verde para financiar um projeto de eficiência energética	r	,413**	,289**	,444**	,470**
Se dependesse apenas de mim, eu certamente utilizaria um crédito verde	r	,552**	,471**	,535**	,604**
Tenho recursos, tempo e disposição para solicitar crédito verde para energias renováveis	r	,456**	,348**	,475**	,367**
Tenho recursos, tempo e disposição para solicitar crédito verde para produtos de eficiência energética	r	,496**	,444**	,503**	,424**
Créditos verdes estão disponíveis nas instituições financeiras que costumo utilizar	r	,246**	,214**	,277**	,274**
Eu estou preocupado com o impacto ambiental das minhas decisões de consumo	r	,304**	,241**	,403**	,536**
Estaria disposto a reduzir o meu consumo de energia para ajudar a proteger o meio ambiente	r	,381**	,260**	,410**	,510**
O crédito verde pode contribuir para a transição energética e redução de emissões de carbono	r	,625**	,501**	,654**	,676**
Acredito que proteger o meio ambiente é responsabilidade de todos	r	,245**	,162*	,340**	,310**
Pretendo considerar o uso de crédito verde ao financiar energias renováveis nos próximos meses	r	,183**	,170*	,208**	,210**
Pretendo considerar o uso de crédito verde ao financiar melhorias de eficiência energética nos próximos meses	r	,213**	,174*	,211**	,200**
Estou disposto a mudar para opções de crédito mais sustentáveis, como o crédito verde, por motivos ecológicos	r	,386**	,366**	,504**	,492**
Tenho a intenção de escolher crédito verde para meu próximo projeto de renovação ou instalação de energia limpa	r	,311**	,252**	,384**	,381**
Planeio utilizar um crédito verde no futuro próximo devido à sua contribuição positiva ao meio ambiente	r	,321**	,230**	,450**	,422**

*Legenda: r –coeficiente de correlação; p – probabilidade de significância; *p<0,05; **p<,01.*

Table 12. Correlation between the use of green credit and the likelihood of applying for the same credit and using it for energy efficiency and renewable energy solutions. Source: Survey Data

A positive correlation was observed between the opinions of family and friends about green credit and the other variables, as the significance probabilities (p) were below 5%. This indicates that the greater the agreement and appreciation of the opinions of family and friends regarding the use of green credit, the higher the environmental awareness and the likelihood of applying for the same credit and using it for energy efficiency and renewable energy solutions (Table 13).

		Considero que as pessoas que são importantes para mim pensam que seria essencial eu considerar financiamento verde para energias renováveis	Considero que as pessoas que são importantes para mim pensam que seria essencial eu considerar financiamento verde para eficiência energética	As pessoas cujas opiniões valorizo prefeririam que eu optasse por crédito verde	As pessoas à minha volta incentivam o uso de opções de crédito sustentáveis
Acredito que tenho a capacidade de solicitar crédito verde para financiar um projeto de energia renovável	r	,475**	,528**	,501**	,459**
Acredito que tenho a capacidade de solicitar crédito verde para financiar um projeto de eficiência energética	r	,466**	,525**	,522**	,486**
Se dependesse apenas de mim, eu certamente utilizaria um crédito verde	r	,563**	,623**	,703**	,518**
Tenho recursos, tempo e disposição para solicitar crédito verde para energias renováveis	r	,501**	,599**	,611**	,565**
Tenho recursos, tempo e disposição para solicitar crédito verde para produtos de eficiência energética	r	,540**	,594**	,609**	,574**
Créditos verdes estão disponíveis nas instituições financeiras que costumo utilizar	r	,339**	,355**	,413**	,404**
Eu estou preocupado com o impacto ambiental das minhas decisões de consumo	r	,517**	,439*	,445**	,336**
Estaria disposto a reduzir o meu consumo de energia para ajudar a proteger o meio ambiente	r	,451**	,359**	,398**	,356**
O crédito verde pode contribuir para a transição energética e redução de emissões de carbono	r	,472**	,457**	,579**	,443**
Acredito que proteger o meio ambiente é responsabilidade de todos	r	,360**	,372**	,403**	,256**
Pretendo considerar o uso de crédito verde ao financiar energias renováveis nos próximos meses	r	,485**	,504**	,451**	,440**
Pretendo considerar o uso de crédito verde ao financiar melhorias de eficiência energética nos próximos meses	r	,483**	,527**	,468**	,490**
Estou disposto a mudar para opções de crédito mais sustentáveis, como o crédito verde, por motivos ecológicos	r	,635**	,637**	,624**	,515**
Tenho a intenção de escolher crédito verde para meu próximo projeto de renovação ou instalação de energia limpa	r	,552**	,584**	,572**	,466**
Planeio utilizar um crédito verde no futuro próximo devido à sua contribuição positiva ao meio ambiente	r	,526**	,533**	,546**	,462**

*Legenda: r –coeficiente de correlação; p – probabilidade de significância; *p<0,05; **p<,01.*

Table 13. Correlation between the opinions of family and friends about the use of green credit and the likelihood of applying for the same credit and using it for energy efficiency and renewable energy solutions. Source: Survey Data

A positive correlation was observed between the possibility of accessing green credit and the other variables, as the significance probabilities (p) were below 5%. This indicates that the greater the agreement regarding the possibility of obtaining green credit, the higher the environmental awareness and the likelihood of applying it to energy efficiency and renewable energy solutions (Table 14).

		Acredito que tenho a capacidade de solicitar crédito verde para financiar um projeto de energia renovável	Acredito que tenho a capacidade de solicitar crédito verde para financiar um projeto de eficiência energética	Se depende esse apenas de mim, eu certamente utilizaria um crédito verde	Tenho recursos, tempo e disposição para solicitar crédito verde para energias renováveis	Tenho recursos, tempo e disposição para solicitar crédito verde para produtos de eficiência energética	Créditos verdes estão disponíveis nas instituições financeiras que costumo utilizar
Eu estou preocupado com o impacto ambiental das minhas decisões de consumo	r	,319**	,329**	,451**	,321**	,333**	,157*
Estaria disposto a reduzir o meu consumo de energia para ajudar a proteger o meio ambiente	r	,235**	,262**	,370**	,286**	,321**	,259**
O crédito verde pode contribuir para a transição energética e redução de emissões de carbono	r	,456**	,462**	,624**	,444**	,442**	,349**
Acredito que proteger o meio ambiente é responsabilidade de todos	r	,302**	,249**	,429**	,229**	,206**	,133
Pretendo considerar o uso de crédito verde ao financiar energias renováveis nos próximos meses	r	,264*	,278**	,353**	,349**	,362**	,290**
Pretendo considerar o uso de crédito verde ao financiar melhorias de eficiência energética nos próximos meses	r	,290**	,312**	,342**	,405**	,426**	,343**
Estou disposto a mudar para opções de crédito mais sustentáveis, como o crédito verde, por motivos ecológicos	r	,430**	,462**	,588**	,510**	,517**	,349**
Tenho a intenção de escolher crédito verde para meu próximo projeto de renovação ou instalação de energia limpa	r	,345**	,445**	,506**	,485**	,487**	,274**
Planeio utilizar um crédito verde no futuro próximo devido à sua contribuição positiva ao meio ambiente	r	,300**	,383**	,503**	,479**	,451**	,272**

*Legenda: r –coeficiente de correlação; p – probabilidade de significância; *p<0,05; **p<,01.*

Table 14. Correlation between the likelihood of applying for green credit, environmental awareness, and using the credit for energy efficiency and renewable energy solutions. Source: Survey Data

A positive correlation was observed between environmental awareness and the likelihood of applying for energy efficiency and renewable energy solutions, as the significance probabilities (p) were below 5%. This indicates that the greater the agreement regarding environmental awareness, the higher the likelihood of applying for energy efficiency and renewable energy solutions (Table 15).

		Eu estou preocupado com o impacto ambiental das minhas decisões de consumo	Estaria disposto a reduzir o meu consumo de energia para ajudar a proteger o meio ambiente	O crédito verde pode contribuir para a transição energética e redução de emissões de carbono	Acredito que proteger o meio ambiente é responsabilidade de todos
Pretendo considerar o uso de crédito verde ao financiar energias renováveis nos próximos meses	r	,184**	,207**	,287**	,079
Pretendo considerar o uso de crédito verde ao financiar melhorias de eficiência energética nos próximos meses	r	,191**	,229**	,296**	,077
Estou disposto a mudar para opções de crédito mais sustentáveis, como o crédito verde, por motivos ecológicos	r	,566**	,520**	,518**	,298**
Tenho a intenção de escolher crédito verde para meu próximo projeto de renovação ou instalação de energia limpa	r	,396**	,355**	,413**	,250**
Planeio utilizar um crédito verde no futuro próximo devido à sua contribuição positiva ao meio ambiente	r	,396**	,354**	,452**	,189**

*Legenda: r –coeficiente de correlação; p – probabilidade de significância; *p<0,05; **p<,01.*

Table 15. Correlation between environmental awareness and the application of credit for energy efficiency and renewable energy solutions. Source: Survey Data

Finding correlations in this study gave us important information about how people act and think about green funding and energy-saving solutions: At first, knowing about other green credit options that can be used for energy-saving projects is seen as a key factor in determining acceptance.

The ones that have more familiarity with financial solutions are the ones that are more inclined no use them. Not only that but also people that care about the environment and do take attention to comments on green financing of family and friends. These are the niches that are more inclined to employ green credit for sustainable practices. With, this is a representation of how crucial it is to educate people about green credit

The transparency of financial organizations' communication of the advantages of green credit is essential. Consumers are more likely to support the use of green credit, show more environmental awareness, and listen to what their circle of friends has to say about the issue if they know that financial institutions communicate clearly about the benefits of green credit for energy efficiency. This shows that financial institutions like UNIBANCO need to improve their communication and marketing strategies and make sure that the language they use is clear and in line with what customers want and value.

The results show how social rules and how other people see you can affect what you buy. A positive association exists between the perceptions of family and friends regarding green credit and the propensity for adoption, indicating that social influence substantially affects consumer behaviour. Financial institutions must capitalize on this by developing community-oriented campaigns and promoting word-of-mouth support that will boost confidence and credibility.

Also, the perceived availability of green finance is positively associated with environmental awareness and the propensity to apply for such credit. This suggests that simplifying the application process and enhancing the accessibility of green credit products might successfully draw more clients. Using practical strategies, like making processes more efficient and offering custom solutions, could greatly reduce the problems people see as hurdles and encourage more participation.

Finally, caring about the earth is strongly linked to wanting to get green credit. This means that consumers who care about the environment are more likely to choose sustainable financial choices. However, it does mean that educational and promotional activities that raise awareness about the environment may indirectly help the use of green credit products.

4.3. Consumer Perceptions and Attitudes Towards Green and Sustainable Financial Products

Survey responses reveal a largely positive disposition towards green credit. Most respondents expressed significant agreement with phrases such as “I support the use of green credit to finance renewable energy” and “I possess a positive attitude toward utilizing green credit for sustainable projects,” with average scores surpassing 6 on a 7-point Likert scale. This indicates that customers acknowledge the prospective advantages of green financing in promoting sustainability.

Despite these favourable attitudes, awareness of green credit alternatives continues to pose a considerable obstacle. More than 27% of respondents indicated they were "very unfamiliar" with green credit programs intended to promote energy efficiency, underscoring a significant necessity for enhanced consumer knowledge. We can verify in the literature review the findings that support this idea. The main solution to the "attitude-behaviour gap" is education. This idea is when people say that they want to buy sustainable products but don't because they don't think that they can afford it or because of the lack of information they possess (Vehmas et al., 2024; Chen et al., 2020).

One of the biggest things that impact consumer emotions are most definitely social influences, including the views of family and friends. These influences are correlated to consumers' willingness to embrace green financing alternatives. "The individuals whose opinions I esteem would favour my selection of green credit” had an average score of 5.30. This shows us the importance of social approval and peer impact on the acceptance of green credit.

Although there are relevant solutions in this study, there are still a few barriers that can prevent the success of this strategy, like logistical and financial problems. Moderate responses to comments about resources, time, and motivation to acquire green credit show realistic barriers to consumer participation, even though attitudes are positive in general.

4.4. Optimizing Marketing and Communication Strategies

The survey results offer practical insights for optimizing marketing and communication tactics to enhance consumer education and attraction towards green and sustainable credit options. Social media (71.4%), television (59.6%), and websites (53.2%) emerged as the predominant sources for acquiring information regarding green credit; yet the clarity of communication from financial institutions received a moderate rating, averaging 4.81 on a 7-point scale. This

indicates an opportunity for financial institutions such as UNIBANCO to enhance their communication and outreach strategies.

The literature identifies many techniques to mitigate these deficiencies. Transparency and authenticity in communication are paramount. Preventing "greenwashing" and delivering realistic, evidence-based assertions regarding the environmental and financial advantages of green credit can establish trust and enhance consumer loyalty (Ottman, 2011). Utilizing storytelling to emphasize the tangible effects of green credit—such as funding renewable energy projects or mitigating carbon emissions—can stimulate emotional ties and improve customer involvement (Chen et al., 2021).

Digital marketing methods are equally crucial. Financial institutions can utilize AI and data analytics to provide personalized content aligned with specific consumer values and interests (Babatunde et al., 2024). This approach can help people interact better and make green credit more appealing and relevant. Partnerships with environmental advocates and people who have a lot of followers on platforms like TikTok, Instagram or YouTube can help get these messages across better, especially to younger, more socially aware audiences.

4.5. Hypothesis Analysis

Using Cronbach's alpha, good internal consistency was observed across the five groups of questions, as the alpha values exceeded 0.8 (Table 16)

	Alfa de Cronbach	N de itens
Q1	,890	4
Q2	,918	4
Q3	,898	6
Q5	,836	4
Q6	,913	5

Table 16. Internal Consistency (Cronbach's Alpha Analysis). Source: Survey Data

4.5.1. Hypothesis 1

H_1: Integrating green finance principles into personal credit models increases consumer adoption for energy-efficient technologies.

Participants had powerful positive sentiments on green credit, demonstrating significant concurrence with assertions such as "I appreciate the concept of utilizing green credit to fund energy efficiency" and "I possess a favourable disposition toward employing green credit for sustainable initiatives." Social effect was significant, as respondents noted that the opinions of family and friends favourably affected their propensity to adopt green credit. In addition, knowledge of green financial options was favourably associated with the propensity to adopt, highlighting the significance of awareness.

But problems still exist after a deeper analysis: a lot of people who answered said they moderated agreed with their ability to apply for green credit, which suggests that there are some practical or financial problems. A lot of the people who answered didn't know about green credit options, and the clarity of financial institutions' communication about these products was rated as moderate.

In conclusion, although the integration of green finance concepts promotes favourable attitudes and intentions, it is essential to address obstacles such as limited awareness, accessibility issues, and ambiguous communication to facilitate comprehensive adoption. Financial institutions must improve consumer education, facilitate access, and provide substantial incentives to close the gap between intention and action.

4.5.2. Hypothesis 2

H_2: Consumer perceptions and attitudes towards green financial products are driven by environmental awareness, social influence, and perceived economic benefits.

Participants exhibited significant environmental consciousness, with most agreeing that safeguarding the environment is a shared obligation and acknowledging the contribution of green credit to mitigating carbon emissions. Social influence emerged as an important issue, with numerous respondents recognizing the impact of family and friends' viewpoints on their attitudes toward green financing.

Still, the expected economic benefits weren't as big of a deal because people weren't completely sure about their resources and ability to pursue green financing. Also, people didn't know much about green credit options (27.1% said they were "very unfamiliar"), and financial institutions' communication were not always clear, which limited the overall effect of the economic benefits.

4.5.3. Hypothesis 3

H_3: Effective and transparent marketing strategies increase consumer interest in green credit for energy-efficient projects.

After analysing the results of the survey, there was a consensus regarding the clarity of financial institutions' communication of the advantages of green credit for energy efficiency, since there was a 26.1% rating it as “neutral”. This mean that there is still a long way to go regarding transparency and messaging.

There was also a big correlation between effective communication and consumer interest in green finance. The ones that perceived clear communication from financial institutions were more likely to apply for green financing and agree with its environmental benefits. Also, without surprise, social media was the main source of information to the respondents, with a clear 71.4% result, making it clear that the strongest weapon a company can have is the control of digital channels.

Finally, the results showed that 27.1% were very unfamiliar with green credit options in the financial market, which can tell us that the methods or the communication is not reaching a good part of the population of the survey respondents

5. Conclusions and Further Research

5.1. Conclusion

This thesis examined the integration of green finance principles into UNIBANCO's personal credit model, focusing on three primary research questions: identifying gaps and opportunities in the green finance market (RQ1), comprehending consumer perceptions and attitudes towards green credit (RQ2), and enhancing marketing and communication strategies to boost consumer engagement (RQ3). With this study and after analysing 203 survey’s answers, we got to

determine the pros and cons of adopting these suggested solutions for the adoption of green finance in UNIBANCO.

RQ 1 was designed to understand how UNIBANCO could distinguish itself from the competitors and gain advantage in the financial market. The results showed us that only few banks and financial institutions present green credit solutions, specifically for energy-efficient products. This is a great opportunity to UNIBANCO for a remarkable investment in the green sector, since that sustainable products are not only a future, but also the present. With competitive interest rates, clear terms, and rewards for sustainability, UNIBANCO may become a leader in its field while also meeting global sustainability goals like the European Green Deal and ESG frameworks (Brühl, 2021; Edmans & Kacperczyk, 2022).

Regarding RQ2, questionnaires' data indicated that consumer opinions of green financial products are predominantly influenced by environmental awareness, social factors, and perceived economic advantages. There is a clear interest of the participants in green finance and for a more sustainable world, but there is still a big path of turning their thoughts in actions. What is preventing them to the action of adopting these sustainable actions are mainly social impact, since the respondents are extremely influenced by family members and friends. A deep article search shown in the literature review helped understand that there is a huge necessity of resolving knowledge deficiencies and use social factors to encourage long-lasting practices (Khan et al., 2024; Sangroya & Nayak, 2017).

Finally, in RQ3, there was a need to embrace the communication and marketing in the financial sector, since it's a big responsible for influencing masses. Social media communication was a top priority in the respondents' answers, making it crucial for the success regarding green credit implementation. Storytelling is also an effective way of creating a longtime relationship with the consumers or future consumers. A main intake that is taken by analysing articles about the topic is that financial institutions need to become clearer and more transparent about their actual actions, avoiding at all costs greenwashing. The trust of the clients will be harmed if actions don't match with their words (Ottman, 2011; Chen et al., 2021).

Concluding this study, there are a few insights that can be taken: the results of the survey showed us validation of the assumptions that incorporating green finance concepts into personal credit models enhances consumer adoption of energy-efficient devices and that consumer views are shaped by environmental awareness, social influence, and perceived economic advantages. Also, the results showed that hypothesis that efficient and transparent marketing tactics

markedly increase consumer interest in green financing. Finally, UNIBANCO can improve its standing in the green finance field by addressing the problems that have been pointed out and using targeted communication methods.

5.2. Limitations and Further Research

In this topic it will be discussed the limitations that were considered in this study. Most of the respondents were from Lisboa and Vale do Tejo, which causes a great generalization since the behaviours in other parts of the country could be different. Other limitation is the fact that this study emphasizes customer intentions, instead of the actual positions they in at that moment. Finally, the analysis made was at a specific moment in time, and by the time this study is done, some banks or financial institutions might already change or added some products.

A good example of a future study might be a broader and wider audience of respondents of the survey, including various Portuguese locations instead of concentrating the study in one specific area. Only then we could compare green credit loans in other countries in the world, trying to understand how the Portuguese consumers are placed in the sustainable world of credit. Another future study might be an analysis of the people that asked for a green credit for a sustainable product, which would facilitate the study, and we could do a deeper analysis and understand their actual behaviours and how could we enhance the experience. Finally, a long-term study analysis of risk to understand how much riskier is for a bank or financial institutions to provide green credit compared to the traditional credit.

5.3. Disclaimer

Use of Artificial Intelligence: This thesis used AI tools to support the research and writing process, helping in the organization of ideas and refinement of the content. The use of AI contributed to enhancing the clarity, coherence, and overall quality of the work.

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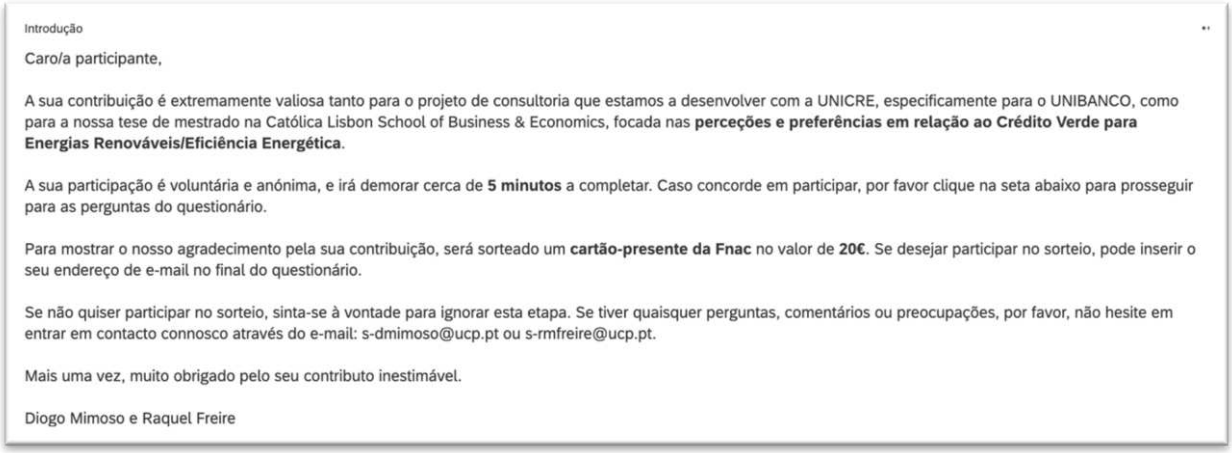
Appendix

Appendix 1 – Online Survey Questionnaire



Introdução

Caro/a participante,

A sua contribuição é extremamente valiosa tanto para o projeto de consultoria que estamos a desenvolver com a UNICRE, especificamente para o UNIBANCO, como para a nossa tese de mestrado na Católica Lisbon School of Business & Economics, focada nas **perceções e preferências em relação ao Crédito Verde para Energias Renováveis/Eficiência Energética**.

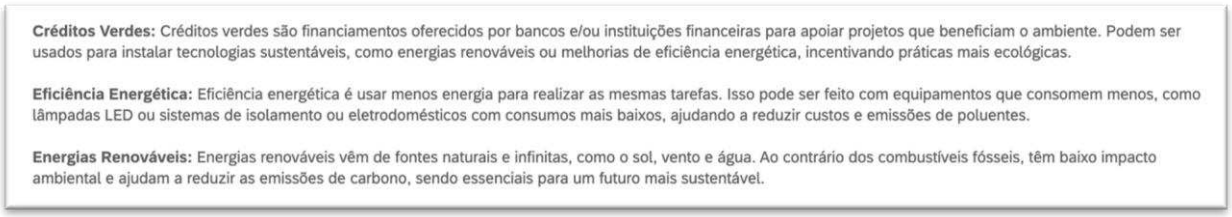
A sua participação é voluntária e anónima, e irá demorar cerca de **5 minutos** a completar. Caso concorde em participar, por favor clique na seta abaixo para prosseguir para as perguntas do questionário.

Para mostrar o nosso agradecimento pela sua contribuição, será sorteado um **cartão-presente da Fnac** no valor de **20€**. Se desejar participar no sorteio, pode inserir o seu endereço de e-mail no final do questionário.

Se não quiser participar no sorteio, sinta-se à vontade para ignorar esta etapa. Se tiver quaisquer perguntas, comentários ou preocupações, por favor, não hesite em entrar em contacto connosco através do e-mail: s-dmimoso@ucp.pt ou s-rmfreire@ucp.pt.

Mais uma vez, muito obrigado pelo seu contributo inestimável.

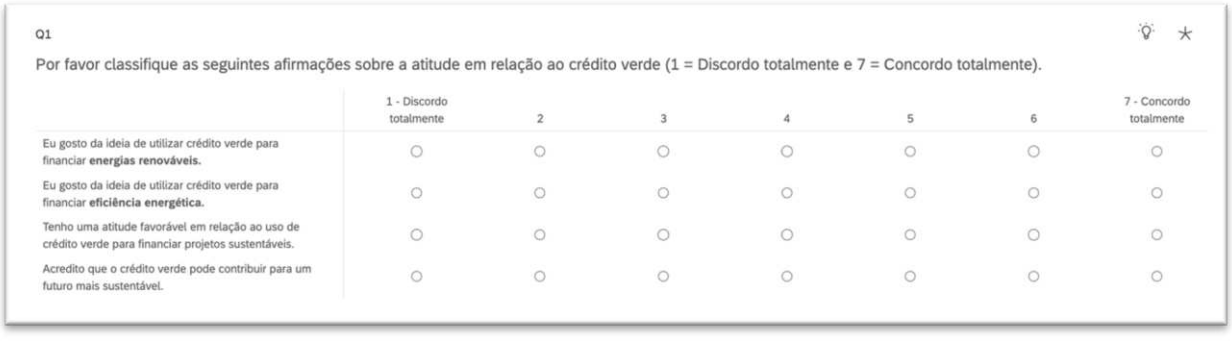
Diogo Mimoso e Raquel Freire



Créditos Verdes: Créditos verdes são financiamentos oferecidos por bancos e/ou instituições financeiras para apoiar projetos que beneficiam o ambiente. Podem ser usados para instalar tecnologias sustentáveis, como energias renováveis ou melhorias de eficiência energética, incentivando práticas mais ecológicas.

Eficiência Energética: Eficiência energética é usar menos energia para realizar as mesmas tarefas. Isso pode ser feito com equipamentos que consomem menos, como lâmpadas LED ou sistemas de isolamento ou eletrodomésticos com consumos mais baixos, ajudando a reduzir custos e emissões de poluentes.

Energias Renováveis: Energias renováveis vêm de fontes naturais e infinitas, como o sol, vento e água. Ao contrário dos combustíveis fósseis, têm baixo impacto ambiental e ajudam a reduzir as emissões de carbono, sendo essenciais para um futuro mais sustentável.



Q1

Por favor classifique as seguintes afirmações sobre a atitude em relação ao crédito verde (1 = Discordo totalmente e 7 = Concordo totalmente).

	1 - Discordo totalmente	2	3	4	5	6	7 - Concordo totalmente
Eu gosto da ideia de utilizar crédito verde para financiar **energias renováveis.**	○	○	○	○	○	○	○
Eu gosto da ideia de utilizar crédito verde para financiar **eficiência energética.**	○	○	○	○	○	○	○
Tenho uma atitude favorável em relação ao uso de crédito verde para financiar projetos sustentáveis.	○	○	○	○	○	○	○
Acredito que o crédito verde pode contribuir para um futuro mais sustentável.	○	○	○	○	○	○	○

Q2

Por favor indique o nível de concordância com as seguintes afirmações (1 = Discordo totalmente e 7 = Concordo totalmente).

	1 - Discordo totalmente	2	3	4	5	6	7- Concordo totalmente
Considero que as pessoas que são importantes para mim pensam que seria essencial eu considerar financiamento verde para **energias renováveis.**	○	○	○	○	○	○	○
Considero que as pessoas que são importantes para mim pensam que seria essencial eu considerar financiamento verde para **eficiência energética.**	○	○	○	○	○	○	○
As pessoas cujas opiniões valorizo prefeririam que eu optasse por crédito verde.	○	○	○	○	○	○	○
As pessoas à minha volta incentivam o uso de opções de crédito sustentáveis.	○	○	○	○	○	○	○

Q3

Por favor classifique as seguintes afirmações com base na sua opinião (1 = Discordo totalmente e 7 = Concordo totalmente).

	1 - Discordo totalmente	2	3	4	5	6	7 - Concordo totalmente
Acredito que tenho a capacidade de solicitar crédito verde para financiar um projeto de **energia renovável.**	○	○	○	○	○	○	○
Acredito que tenho a capacidade de solicitar crédito verde para financiar um projeto de **eficiência energética.**	○	○	○	○	○	○	○
Se dependesse apenas de mim, eu certamente utilizaria um crédito verde.	○	○	○	○	○	○	○
Tenho recursos, tempo e disposição para solicitar crédito verde para **energias renováveis.**	○	○	○	○	○	○	○
Tenho recursos, tempo e disposição para solicitar crédito verde para produtos de **eficiência energética.**	○	○	○	○	○	○	○
Créditos verdes estão disponíveis nas instituições financeiras que costumo utilizar.	○	○	○	○	○	○	○

Q4

Para verificar a sua atenção no questionário, por favor selecione "Concordo totalmente".

1 - Discordo totalmente	2	3	4	5	6	7 - Concordo totalmente
○	○	○	○	○	○	○

Q5

Por favor classifique as seguintes afirmações sobre preocupação ambiental (1 = Discordo totalmente e 7 = Concordo totalmente).

	1 - Discordo totalmente	2	3	4	5	6	7 - Concordo totalmente
Eu estou preocupado com o impacto ambiental das minhas decisões de consumo.	○	○	○	○	○	○	○
Estaria disposto a reduzir o meu consumo de energia para ajudar a proteger o meio ambiente.	○	○	○	○	○	○	○
O crédito verde pode contribuir para a transição energética e redução de emissões de carbono.	○	○	○	○	○	○	○
Acredito que proteger o meio ambiente é responsabilidade de todos.	○	○	○	○	○	○	○

Q7

Qual o seu nível de familiaridade com as opções de crédito verde especificamente concebidas para apoiar projetos de eficiência energética?

- ○ 1 - Muito pouco familiar
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Muito familiar

Q6

Por favor classifique as seguintes afirmações sobre intenção de usar crédito verde (1 = Extremamente improvável e 7 = Extremamente provável).

	1 - Extremamente improvável	2	3	4	5	6	7 - Extremamente provável
Pretendo considerar o uso de crédito verde ao financiar **energias renováveis** nos próximos meses.	○	○	○	○	○	○	○
Pretendo considerar o uso de crédito verde para financiar melhorias de **eficiência energética** nos próximos meses.	○	○	○	○	○	○	○
Estou disposto a mudar para opções de crédito mais sustentáveis, como o crédito verde, por motivos ecológicos.	○	○	○	○	○	○	○
Tenho a intenção de escolher crédito verde para meu próximo projeto de renovação ou instalação de energia limpa.	○	○	○	○	○	○	○
Planeio utilizar um crédito verde no futuro próximo devido à sua contribuição positiva ao meio ambiente.	○	○	○	○	○	○	○

Q8 *

Até que ponto considera que a comunicação das instituições financeiras é clara em transmitir os benefícios do crédito verde para projetos de eficiência energética?

- ○ 1 - Discordo totalmente
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ 6
- ○ 7 - Concordo totalmente

Q9 *

Quais os canais que considera mais úteis para conhecer melhor as opções de crédito verde para melhorias de eficiência energética (e.x., redes sociais, newsletters por email, conteúdos no site)?

- ☐ Redes sociais
- ☐ Newsletters por email
- ☐ Sites
- ☐ Televisão
- ☐ Outros

Q10 *

Com que género se identifica?

- ○ Masculino
- ○ Feminino
- ○ Outro
- ○ Prefere não dizer

Q11 *

Qual a sua idade?

- ○ Menos de 18 anos
- ○ 18-24 anos
- ○ 25-34 anos
- ○ 35-44 anos
- ○ 45-54 anos
- ○ 55-64 anos
- ○ Mais de 65 anos
- ○ Prefiro não dizer

Q12 *

Qual é o nível mais alto de educação que completou?

- ○ Menos do que o ensino secundário
- ○ Ensino secundário ou equivalente
- ○ Licenciatura ou equivalente
- ○ Mestrado ou equivalente
- ○ Doutoramento ou equivalente
- ○ Prefiro não dizer

Q13 *

Qual é o seu rendimento mensal antes dos impostos?

- ○ Abaixo de 500€
- ○ 501 - 1500€
- ○ 1501 - 2500€
- ○ 2501 - 3500€
- ○ 3501 - 4500€
- ○ 4501 - 5500€
- ○ Acima de 5501€
- ○ Prefiro não dizer

Q14 *

Qual é a sua situação profissional atual?

- ○ Empregado a tempo inteiro
- ○ Empregado a tempo parcial
- ○ Trabalhador independente
- ○ Estudante
- ○ Trabalhador-Estudante
- ○ Reformado
- ○ Desempregado
- ○ Prefiro não dizer

Q15 *

Em que zona de Portugal reside atualmente?

- ○ Norte
- ○ Centro
- ○ Lisboa e Vale do Tejo
- ○ Alentejo
- ○ Algarve
- ○ Açores
- ○ Madeira
- ○ Prefiro não dizer
- ○ Não vivo em Portugal

Appendix 2 - SPSS Output

Q10

	N	%
Feminino	112	55,2%
Masculino	91	44,8%

Q11

	N	%
18-24 anos	68	33,5%
25-34 anos	20	9,9%
35-44 anos	9	4,4%
45-54 anos	67	33,0%
55-64 anos	26	12,8%
Mais de 65 anos	13	6,4%

Q12

	N	%
Menos do que o ensino secundário	2	1,0%
Ensino secundário	50	24,6%
Licenciatura ou equivalente	99	48,8%
Mestrado ou equivalente	50	24,6%
Doutoramento ou equivalente	2	1,0%

Q13

	N	%
Abaixo de 500€	19	9,4%
501 - 1500€	31	15,3%
1501 - 2500€	40	19,7%
2501 - 3500€	39	19,2%
3501 - 4500€	11	5,4%
4501 - 5500€	5	2,5%
Acima de 5500€	6	3,0%
Prefiro não dizer	52	25,6%

Q14		
	N	%
Empregado a tempo inteiro	109	53,7%
Estudante	46	22,7%
Prefiro não dizer	2	1,0%
Reformado	20	9,9%
Trabalhador independente	15	7,4%
Trabalhador-Estudante	11	5,4%

Q15		
	N	%
Alentejo	15	7,4%
Algarve	2	1,0%
Centro	9	4,4%
Lisboa e Vale do Tejo	168	82,8%
Norte	3	1,5%
Não resido em Portugal	2	1,0%
Prefiro não dizer	4	2,0%

Eu gosto da ideia de utilizar crédito verde para financiar energias renováveis		
	N	%
2	8	3,9%
3	2	1,0%
4	12	5,9%
5	27	13,3%
6	33	16,3%
Concordo Totalmente	121	59,6%

Eu gosto da ideia de utilizar crédito verde para financiar eficiência energética		
	N	%
2	4	2,0%
3	6	3,0%
4	12	5,9%
5	20	9,9%
6	50	24,6%
Concordo Totalmente	111	54,7%

Tenho uma atitude favorável em relação ao uso de crédito verde para financiar projetos sustentáveis		
	N	%
2	6	3,0%
3	6	3,0%
4	8	3,9%
5	24	11,8%
6	46	22,7%
Concordo Totalmente	113	55,7%

Acredito que o crédito verde pode contribuir para um futuro mais sustentável		
	N	%
2	2	1,0%
3	2	1,0%
4	10	4,9%
5	20	9,9%
6	46	22,7%
Concordo Totalmente	123	60,6%

Considero que as pessoas que são importantes para mim pensam que seria essencial eu considerar financiamento verde para energias renováveis		
	N	%
2	14	6,9%
3	12	5,9%
4	39	19,2%
5	34	16,7%
6	51	25,1%
Concordo Totalmente	53	26,1%

Considero que as pessoas que são importantes para mim pensam que seria essencial eu considerar financiamento verde para eficiência energética		
	N	%
2	10	4,9%
3	22	10,8%
4	41	20,2%
5	30	14,8%
6	46	22,7%
Concordo Totalmente	54	26,6%

As pessoas cujas opiniões valorizo prefeririam que eu optasse por crédito verde		
	N	%

2	12	5,9%
3	8	3,9%
4	42	20,7%
5	38	18,7%
6	51	25,1%
Concordo Totalmente	52	25,6%

As pessoas à minha volta incentivam o uso de opções de crédito sustentáveis

	N	%
Discordo Totalmente	4	2,0%
2	18	8,9%
3	16	7,9%
4	47	23,2%
5	38	18,7%
6	48	23,6%
Concordo Totalmente	32	15,8%

Acredito que tenho a capacidade de solicitar crédito verde para financiar um projeto de energia renovável

	N	%
Discordo Totalmente	6	3,0%
2	14	6,9%
3	20	9,9%
4	36	17,7%
5	37	18,2%
6	39	19,2%
Concordo Totalmente	51	25,1%

Acredito que tenho a capacidade de solicitar crédito verde para financiar um projeto de eficiência energética

	N	%

Discordo Totalmente	4	2,0%
2	16	7,9%
3	16	7,9%
4	34	16,7%
5	32	15,8%
6	32	15,8%
Concordo Totalmente	69	34,0%

Se dependesse apenas de mim, eu certamente utilizaria um crédito verde		
	N	%
Discordo Totalmente	2	1,0%
2	6	3,0%
3	8	3,9%
4	24	11,8%
5	41	20,2%
6	39	19,2%
Concordo Totalmente	83	40,9%

Tenho recursos, tempo e disposição para solicitar crédito verde para energias renováveis		
	N	%
Discordo Totalmente	12	5,9%
2	18	8,9%
3	22	10,8%
4	51	25,1%
5	42	20,7%
6	23	11,3%
Concordo Totalmente	35	17,2%

Tenho recursos, tempo e disposição para solicitar crédito verde para produtos de eficiência energética		
	N	%
Discordo Totalmente	10	4,9%

2	26	12,8%
3	20	9,9%
4	37	18,2%
5	48	23,6%
6	34	16,7%
Concordo Totalmente	28	13,8%

Créditos verdes estão disponíveis nas instituições financeias que costumo utilizar		
	N	%
Discordo Totalmente	4	2,0%
2	8	3,9%
3	30	14,8%
4	53	26,1%
5	33	16,3%
6	36	17,7%
Concordo Totalmente	39	19,2%

Eu estou preocupado com o impacto ambiental das minhas decisões de consumo		
	N	%
2	4	2,0%
3	2	1,0%
4	20	9,9%
5	26	12,8%
6	35	17,2%
Concordo Totalmente	116	57,1%

Estaria disposto a reduzir o meu consumo de energia para ajudar a proteger o meio ambiente		
	N	%
2	4	2,0%
3	2	1,0%
4	12	5,9%

5	20	9,9%
6	61	30,0%
Concordo Totalmente	104	51,2%

O crédito verde pode contribuir para a transição energética e redução de emissões de carbono		
	N	%
2	2	1,0%
3	8	3,9%
4	8	3,9%
5	29	14,3%
6	70	34,5%
Concordo Totalmente	86	42,4%

Acredito que proteger o meio ambiente é responsabilidade de todos		
	N	%
4	6	3,0%
5	6	3,0%
6	13	6,4%
Concordo Totalmente	178	87,7%

Pretendo considerar o uso de crédito verde ao financiar energias renováveis nos próximos meses		
	N	%
Extremamente improvável	37	18,2%
2	4	2,0%
3	25	12,3%
4	48	23,6%
5	28	13,8%
6	22	10,8%

Extremamente provável	39	19,2%

Pretendo considerar o uso de crédito verde ao financiar melhorias de eficiência energética nos próximos meses		
	N	%
Extremamente improvável	37	18,2%
2	10	4,9%
3	21	10,3%
4	50	24,6%
5	24	11,8%
6	20	9,9%
Extremamente provável	41	20,2%

Estou disposto a nudar para opções de crédito mais sustentáveis, como o crédito verde, por motivos ecológicos		
	N	%
Extremamente improvável	10	4,9%
2	8	3,9%
3	4	2,0%
4	47	23,2%
5	38	18,7%
6	33	16,3%
Extremamente provável	63	31,0%

Tenho a intenção de escolher crédito verde para meu próximo projeto de renovação ou instalação de energia limpa		
	N	%
Extremamente improvável	20	9,9%
2	4	2,0%
3	8	3,9%
4	33	16,3%
5	38	18,7%

6	42	20,7%
Extremamente provável	58	28,6%

Planeio utilizar um crédito verde no futuro próximo devido à sua contribuição positiva ao meio ambiente

	N	%
Extremamente improvável	12	5,9%
2	10	4,9%
3	12	5,9%
4	36	17,7%
5	48	23,6%
6	29	14,3%
Extremamente provável	56	27,6%

Qual o seu nível de familiaridade com as opções de crádito verde especificamente concebidas para aopiar projetos de eficiência energética

	N	%
Muito pouco familiar	55	27,1%
2	28	13,8%
3	34	16,7%
4	31	15,3%
5	36	17,7%
6	19	9,4%

Até que ponto considera que a comunicação das instituições financeiras é clara em tranmitir os benefícios do crédito verde para projetos de eficiência energética

	N	%
Discordo Totalmente	23	11,3%
2	34	16,7%
3	36	17,7%
4	53	26,1%

5	28	13,8%
6	22	10,8%
Concordo Totalmente	7	3,4%

Escala: q1

Resumo de processamento de casos

		N	%
Casos	Válido	203	100,0
	Excluídos[a]	0	,0
	Total	203	100,0

a. Exclusão de lista com base em todas as

variáveis do procedimento.

Estatísticas de confiabilidade	
Alfa de Cronbach	N de itens
,890	4

Escala: q2

Resumo de processamento de casos			
	N	%	
Casos	Válido	203	100,0
	Excluídos[a]	0	,0
	Total	203	100,0
a. Exclusão de lista com base em todas as variáveis do procedimento.			

Estatísticas de confiabilidade	
Alfa de Cronbach	N de itens
,918	4

Escala: q3

Resumo de processamento de casos			
	N	%	
Casos	Válido	203	100,0
	Excluídos[a]	0	,0
	Total	203	100,0
a. Exclusão de lista com base em todas as variáveis do procedimento.			

Estatísticas de confiabilidade	
Alfa de Cronbach	N de itens
,898	6

Escala: q5

Resumo de processamento de casos			
	N	%	
Casos	Válido	203	100,0
	Excluídos[a]	0	,0
	Total	203	100,0
a. Exclusão de lista com base em todas as variáveis do procedimento.			

Estatísticas de confiabilidade	
Alfa de Cronbach	N de itens
,836	4

Escala: q6

Resumo de processamento de casos			
	N	%	
Casos	Válido	203	100,0
	Excluídos[a]	0	,0
	Total	203	100,0
a. Exclusão de lista com base em todas as variáveis do procedimento.			

Estatísticas de confiabilidade	
Alfa de Cronbach	N de itens
,913	5

Appendix 3 – Data Graphs

Cetelem	Documentação Pedida	Comissões	Outros Comentários	Vantangens/Promoções
	Comprovativo de Identificação dos titulares do contrato Cartão do Cidadão ou Bilhete de Identidade + Cartão de Contribuinte Comprovativo de Residência Apenas um dos documentos Última fatura de Água, Luz, Gás, Telefone ou TV Cabo Comprovativo IBAN nominativo de um dos titulares do contrato Apenas um dos documentos Informação de conta via HomeBanking; Último extrato bancário; Talão de Multibanco com IBAN + Frente do Cartão Multibanco; 1ª página da Caderneta Último recibo de vencimento dos titulares do contrato Último Modelo 3 do IRS ou Código de validação de Entrega Comprovativo de Pensão	Comissões iniciais: Comissão de formalização (400€) Comissões durante a vigência do contrato: Comissão de reembolso antecipado parcial (0,5%/0,25%), comissão de recuperação de valores em dívida (4%) Comissões no termo do contrato: Comissão de reembolso antecipado parcial (0,5%/0,25%), comissões relativas ao preenchimento e apresentação da livrança e pagamento (200€)	Juntaram-se à Aliança Bancária Net-Zero e fazem por alinhar a sua atividade com as metas do Acordo de Paris, para tornar a União Europeia líder no impacto neutro no clima até 2050. Tap Miles & Go: o cartão de crédito amigo do ambiente. Reciclagem dos cartões bancários.	

Caixa Geral de Depósitos	Documentação Pedida	Comissões	Outros Comentários	Vantangens/Promoções
	Bilhete de identidade e cartão de contribuinte ou cartão de cidadão; cópia da última declaração de rendimentos e respetiva nota de liquidação do IRS; recibo da última remuneração auferida por cada elemento do agregado familiar;declaração da entidade patronal, sobre o vínculo laboral existente	Sem Comissões de Abertura		

Millennium BCP	Documentação Pedida	Comissões	Outros Comentários	Vantangens/Promoções
	3 últimos recibos de vencimento; Última declaração de IRS - NIF do sujeito A e o código de validação do IRS; Documento de identificação de todos os intervenientes, caso o pedido seja realizado numa sucursal Millennium BCP.	Sem Comissões de Abertura		

Activo Bank	Documentação Pedida	Comissões	Outros Comentários	Vantangens/Promoções
	Três últimos recibos de vencimento e o modelo 3 da declaração de IRS.	Comissão Inicial de Abertura		