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Education: The Key Factor in Developing Livo's Customer Journey

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Dissertation written under the supervision of Professor Rute Xavier

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Abstract

This dissertation Education: The Key Factor in Developing Livo's Customer Journey under Professor Rute Xavier's supervision, explores how education can enhance Livo's customer journey in integrating energy-efficient solutions into Ageas Portugal's insurance offerings. A mixed-methods approach was used to evaluate strategies, understand barriers, and uncover cross-selling opportunities. The research highlights the need to address two primary barriers: lack of consumer knowledge and financial constraints. Educational campaigns and clear communication can bridge awareness gaps, encouraging informed decisions. Moreover, emphasizing long-term cost savings and offering financing options could mitigate financial challenges. Key findings show that integrating Livo's sustainable solutions with multi-risk insurance packages can elevate customer satisfaction and loyalty. Recommendations are structured around three phases of the customer journey, in the pre-purchase phase to build awareness through targeted campaigns, educational materials, and modular solutions tailored to diverse customer profiles. In the purchase phase to simplify decision-making with transparent pricing, and bundled incentives emphasizing long-term savings. In the post-purchase phase to reinforce trust with follow-up protocols, performance reports, and personalized service updates.

The study concludes that aligning sustainability with insurance offerings presents significant opportunities for value creation. By addressing informational and financial barriers, Livo and Ageas can redefine the customer experience, enhancing loyalty and contributing to a sustainable future.

Author: Teresa Cintra

Keywords: customer journey, cross-selling opportunities, sustainability, educational campaigns, financial incentives.

Resumo

A dissertação Educação: O fator-chave no desenvolvimento da jornada do cliente, sob a orientação da Professora Rute Xavier, explora a forma como a educação pode melhorar o percurso do cliente da Livo na integração de soluções energeticamente eficientes nas ofertas de seguros da Ageas Portugal. Foi utilizada uma abordagem com métodos mistos para avaliar estratégias, e descobrir oportunidades de venda cruzada. A investigação destaca duas barreiras principais: a falta de conhecimento dos consumidores e as restrições financeiras. As campanhas educativas e uma comunicação clara podem colmatar as lacunas de sensibilização, encorajando decisões informadas. Além disso, o enfase na poupança a longo prazo e a oferta de opções de financiamento podem atenuar os desafios financeiros. As principais conclusões mostram que a integração das soluções sustentáveis da Livo com pacotes de seguros multirriscos pode elevar a satisfação e a lealdade do cliente. As recomendações baseiam-se nas três fases do percurso do cliente, na primeira para aumentar a consciencialização através de campanhas educativas e soluções adaptadas aos diversos perfis de clientes. Na segunda fase, para simplificar a tomada de decisões com preços transparentes e incentivos que reforcem a poupança a longo prazo. Na última fase, para reforçar a confiança através de relatórios de desempenho e atualizações de serviço personalizadas.

O estudo conclui que unir a sustentabilidade com ofertas de seguros representa oportunidades para a criação de valor. Ao ultrapassar estas barreiras, a Livo e a Ageas podem redefinir a experiência do cliente, aumentando a lealdade e contribuir para um futuro sustentável.

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Palavras-chave: jornada do consumidor, oportunidades de vendas cruzadas, sustentabilidade, campanhas educacionais, incentivos financeiros.

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1. Introduction

Nowadays, there is a growing trend of intense competitiveness among consumer-focused companies, striving to enhance service integration and foster customer engagement that builds stronger, and more loyal relationships with brands. As consumers continue to look for immediate solutions, companies aim to respond faster than competitors to secure a leading market position. Founded in 2021, Livo is a Portuguese start-up specialized in sustainable home and automotive solutions, including solar panels, electric vehicles chargers, and smart home technologies. Its goal is to meet the demands of the fast-growing market for energy-efficient and sustainable solutions.

Ageas, one of the most well-known insurance companies in Portugal, has over 2 million customers with a range of insurance products varying from life, health, and property insurance. Leveraging Ageas's market reach, Livo aims to integrate Ageas's insurance solutions into its energy-efficient offerings, enhancing multi-risk insurance packages with sustainable, customer-focused services. This collaboration benefits both companies. Ageas broadens its service range, and Livo gains a larger customer base, greater visibility, and expanded offerings, creating a mutually beneficial partnership. It also reflects a growing trend, consumers are increasingly interested in supporting companies that prioritize sustainability, particularly among environmentally conscious demographics (The Portugal News, 2023; Hojnik et al., 2019). Understanding the multi-risk insurance customer journey in detail is essential to integrating Ageas' services into Livo's offerings. Mapping this journey will help pinpoint where Livo's products can add the most value. Research highlights that partnerships can enhance competitiveness and deliver greater value to customers, as seen in Livo and Ageas's collaboration (Saunila et al., 2023).

Aligning their offerings, enables Livo and Ageas to redefine their value propositions, ensuring they exceed evolving customer expectations. Continuous assessment of this partnership is essential for adapting strategies to align with evolving consumer demands and market trends (Bocken et al., 2014; Henry et al., 2020). This integration of Livo's sustainable solutions with Ageas's insurance products aims to improve the customer journey in multi-risk insurance, focusing on customer satisfaction and cross-selling potential to meet the needs of eco-conscious consumers and support long-term growth.

1.1. Research Questions

To evaluate the potential partnership between Livo's sustainable solutions and Ageas's multi-risk insurance offerings, this study poses the following research questions:

1. How does the customer journey in multi-risk insurance evolve so Livo's services can provide added value?
2. To what extent do customers perceive Livo's sustainable home solutions as enhancing their insurance experience and increase cross-selling opportunities?
3. What are the key barriers to customer adoption of bundled insurance and sustainability services between Ageas and Livo?

1.2. Problem Statement

The challenge faced is integrating the core insurance business of Ageas into Livo's operations. Livo aims to provide added value through energy-efficient solutions like solar panels, electric chargers, and smart home technologies, while addressing the need for closer customer proximity. Both companies strive to go above and beyond in exploring new services and products. The objective is to identify ways to enhance the customer journey in multi-risk insurance, ensuring Livo's services complement and elevate the insurance experience. Through refining multi-risk insurance packages with energy-efficient solutions, Ageas and Livo aim to both increase customer satisfaction and maximize customer lifetime value, central pillars of their long-term strategy. Additionally, identifying cross-selling opportunities within the customer journey is essential for enhancing customer satisfaction and lifetime value, especially given Ageas's extensive distribution network and customer base.

2. Literature Review

This chapter examines how sustainable practices and customer journey mapping foster innovative business models, supporting organizations in identifying value creation opportunities and maintaining competitiveness. By analyzing current market trends and consumer behaviors, particularly in eco-conscious segments, companies like Ageas and Livo can develop customer-centric, sustainable models that address evolving demands.

2.1. Business Model Development

Bocken et al. (2014) emphasize how sustainable business models can identify and help implement strategies that will achieve profitability, minimize environmental impact and improve social well-being. For Livo and Ageas this has extreme importance since the partnership will help the response to current market trends such as the sustainable solutions,

and to create a competitive advantage through continuous innovation in the insurance and energy efficiency sectors. By incorporating sustainable practices, both companies are providing eco-friendly solutions that respond better to customer needs and helps to enhance competitive positioning.

For Ageas and Livo, with a sustainable business model it will allow them to resonate with eco-conscious customers who prioritize responsible consumption. Incorporating sustainable practices positions them as proactive in their industries, aligning with consumer demands for both profitability but also minimize environmental impact (Bocken et al., 2014; Hojnik et al., 2019).

Saunila & Ukko, (2023) reflect on the power of a partnership between two companies working towards sustainability, it further deepens into the competitiveness, suggesting that companies gain an advantage by aligning their business strategies with sustainable practices.

During times of economic instability, companies that continue investing in sustainability-focused research and development are better positioned for long-term success (Srinivasan, et al., 2011). However, developing a sustainable business model in contexts of impoverishment presents unique challenges. Bruton, et al., 2023) highlight that firms in these settings must adapt traditional lean practices to address institutional and resource constraints effectively. This adaptability is crucial for achieving operational efficiency while exploring innovative business models.

To define a purpose for an effective business model development is a crucial point for its success. George, et al., (2021) explores the concept of "purpose" in for-profit firms, reviewing how purpose defined as a firm's commitment to societal or environmental goals beyond profit and affects company strategies, operations, and its long-term success. Implementing a business model with a clear purpose will allow the company to conduct a market analysis and make strategic decisions that are both profitable and aligned with societal expectations. Assessing consumer preferences and sustainability challenges, allows companies to create business models that meet market demands while contributing positively to society and the environment.

2.2. Strategic Decision-Making

For Ageas and Livo, each decision shapes their customer journey and determines how effectively they can meet consumer expectations with eco-friendly, bundled solutions. For

companies evolving to stay current with trends, strategic decision-making is crucial in determining the effectiveness of business model innovation (Novelli & Spina, 2024). Today, companies see the importance of strategic decision-making when it comes to maintaining an adaptive, sustainable business model. Research shows how integrating a sustainable business model can help raise awareness to its consumers. Consequently, studies indicates that this adoption can give companies a competitive advantage by aligning operations with customer values (Bocken, et al., 2014; Hojnik, et al., 2019).

According to Saunila et al. (2023), sustainability-focused partnerships can reinforce a company's competitiveness, allowing it to collaboratively create value and eliminate the risks associated with innovation. Additionally, having a deeper knowledge on the customer journey allows companies to make strategic decisions that lead to business model innovation. Mapping customer journeys allows companies to identify touchpoints for innovation and ultimately enhances customer satisfaction and loyalty (Lemon & Verhoef, 2016). Understanding this helps companies invest strategically in areas that matter most to consumers. For Livo and Ageas, this involves analysing customer interactions with multi-risk insurance offerings and determining how Livo's solutions can provide added value. Insights from customer behaviour analysis uncover cross-selling opportunities, as consumers increasingly prefer bundled services that meet multiple needs (Van Der Borgh, et al., 2022).

2.3. Customer Journey and Cross-Selling

Throughout the customer journey, a customer engages with the company at multiple touchpoints, from initial awareness to post-purchase engagement (Lemon, et al. 2016). Mapping the customer journey emphasizes that customer experience is not limited to single interactions but encompasses a range of touchpoints and stages that together shape customer perceptions, satisfaction, and loyalty leading to cross-selling opportunities.

2.3.1. Mapping the Customer Journey

Regular mapping the customer journey enables companies to track trends and gain insights into customer behaviours, preferences, and pain points. For insurance companies, customer journey stages typically begin with recognizing a need, followed by information gathering, evaluating options, making a purchase, and engaging in ongoing service interactions (Van Der Borgh et al., 2022). This enables Ageas and Livo to align their offerings with customer needs and deepen engagement, particularly by integrating eco-friendly products that reflect customer values. Working not only as companies but also as educators, companies have the capacity to teach its

consumers about the impact of eco-friendly products and services, in terms of long-term benefits, promoting an alignment with consumer values and building loyalty through transparency and engagement (Hojnik et al., 2019). Additionally, maintaining an active communication during and after the sale enhances the relationships and builds customer loyalty. A well-mapped customer journey helps identify opportunities to enhance the journey and foster cross-selling between Livo and Ageas. Understanding customer needs at each journey stage and clearly communicating the added value of bundled services allows both companies to create a compelling proposition that resonates with eco-conscious consumers. Addressing the possible constraints might facilitate a successful integration of sustainable solutions, positioning both companies for long-term success in the insurance market.

2.3.2. To Enhance the Customer Journey

In an increasingly competitive market, enhancing the customer journey allows the company to be a step ahead its competitors, while creating deeper, more meaningful connections with consumers. By doing it, it improves customer satisfaction and increases retention rates, brand differentiation, and increased revenue. Consequently, a strong customer journey drives to measurable outcomes like retention, customer satisfaction, and brand loyalty. For Ageas and Livo, tailoring each touchpoint to eco-conscious consumers not only adds unique value but also strengthens their brand positioning, resulting in increased customer lifetime value (Bocken et al., 2014; Saunila, et al., 2023).

Personalized communications, such as targeted recommendations for sustainable solutions or insurance bundles, show customers that their individual needs are recognized and valued. According to Lemon and Verhoef (2016), personalization fosters stronger customer relationships by enhancing perceived relevance and responsiveness. For Ageas and Livo, leveraging data insights to anticipate customer needs adds unique value and deepens customer trust.

The integration of digital channels, such as mobile applications, online portals, and virtual consultations, plays a crucial role in enhancing customer convenience and accessibility. Such digital touchpoints not only improve service efficiency but also enable Ageas and Livo to engage eco-conscious consumers by offering paperless, low-carbon interactions (Saunila et al., 2023). Digital tools not only improve the ease of interacting with Ageas and Livo's offerings but also support their sustainable initiatives by reducing paper use and travel requirements, thereby appealing to environmentally conscious customers. This digital engagement further

differentiates Ageas and Livo in the market by offering a seamless, environmentally aligned experience.

During the post-purchase period, there is an opportunity to reinforce customer loyalty and add value to the customer experience. Engaging customers through proactive communication, such as maintenance reminders, and policy reviews keeps the relationship active and demonstrates ongoing support. Lemon and Verhoef (2016) emphasize that post-purchase engagement can significantly increase customer retention by creating a continuous connection with the brand. For Ageas and Livo, sustained engagement post-purchase enhances satisfaction and opens further opportunities for cross-selling, particularly in eco-friendly products and services, thereby extending customer lifetime value.

2.3.3. The Positive Impact of Cross-Selling

Cross-selling allows the company to strengthen their relationship with its existing customers. Integrating Ageas's multi-risk insurance products into Livo's offerings creates an opportunity for cross-selling that enhance customer satisfaction. Cross-selling allows Ageas and Livo to meet multiple customer needs through bundled, eco-conscious solutions. Aligning these offerings with customer values around sustainability can build trust and foster long-term loyalty (Van Der Borgh et al., 2022; Hojnik, et al., 2019). Research indicates that consumers increasingly prefer bundled services that address multiple aspects of their lives (Van Der Borgh et al., 2022). Strategic bundling should not only meet customers' immediate needs but also align with their values around sustainability and environmental responsibility (Bocken et al., 2014). Customer perceptions are crucial to cross-selling, so understanding how customers view the added value of Livo's solutions can strengthen these initiatives. Studies emphasize that aligning customer perceptions of insurance products with sustainability initiatives enhances engagement with cross-sell offers (Hojnik, et al., 2019).

2.4. Leveraging Value Creation for Success

The integration of services in a business model strengthens a company's value proposition and competitive positioning, particularly in markets where customers seek bundled, sustainable solutions (Kumar & Reinartz, 2016; Lemon, et al., 2016). For Ageas and Livo, this integration not only enhances customer satisfaction but also differentiates them through a commitment to eco-conscious service offerings that appeal to environmentally responsible consumers. From a business perspective, cross-selling can enhance customer lifetime value and equity, especially

in industries where multiple products can be bundled to meet diverse customer needs (Bocken et al., 2014).

Integrating insurance services with investment products offers comprehensive solutions that address to several needs from consumers, consequently increasing the perceived value of offerings (Kumar & Shah, 2009). This strategy not only grows sales but also strengthens customer relationships, working on traditional marketing metrics, such as customer acquisition and retention.

Furthermore, for a strong integration of services, there is a need to have a deep understanding of the customer journey. In the context of the digital age, digitalization has transformed the way customers interact with brands, making the customer journey more complex and non-linear and so to map a detailed customer journey allowing businesses to identify critical touchpoints (Dellaert & Stremersch, 2021. Identifying key touchpoints and integrating services allows companies to provide tailored, seamless, consistent solutions that meet specific customer needs and preferences (Malthouse, et al., 2013).

Personalization and sustainability together drive value creation by allowing Ageas and Livo to tailor services to individual needs, such as providing customized insurance for eco-friendly installations. This not only enhances customer satisfaction but also strengthens their market positioning as leaders in sustainable solutions (Arora & Stoneman, 2020; Saunila et al., 2023). Implementing sustainability allied to service integration is viewed as a pathway to value creation. Today, integrating services with sustainable practices leads to the growing market of eco-conscious consumers while enhancing brand reputation and competitive advantage (Saunila et al., 2023). A startup focused on energy-efficient solutions can integrate insurance products for eco-friendly installations, creating a holistic offering that appeals to environmentally conscious customers (Roshan & Balodi, 2024).

Continuous evaluation is essential for effective service integration. Metrics assessing customer satisfaction, service usage, and financial performance provide insights into the value generated (Mintz & Currim, 2012). This approach enables companies to refine their offerings to align with customer needs and market trends. The integration of services that fosters value creation not only enhances customer satisfaction but also contributes to lifetime value, aligning with Ageas and Livo's goals to meet evolving consumer expectations sustainably. By integrating customer-centric, sustainable services into their offerings, Ageas and Livo can meet evolving demands, thus securing a stronger position in an increasingly competitive, eco-conscious market.

3. Methodology

This research was conducted in a way to enhance the customer journey in multi-risk insurance through a mixed-methods approach that combines quantitative and qualitative insights. Through the usage of surveys, interviews, and mystery client evaluations, this study intends on identifying key touchpoints and cross-selling opportunities.

A mixed-methods approach, incorporating a qualitative component through mystery shopping and interviews, provides a rich exploratory insight that deepens the understanding of customer experiences (Creswell & Plano Clark, 2018). This qualitative data will also inform and adapt the quantitative component, enhancing the research's overall scope. By using surveys as the quantitative component, the study can generalize findings more broadly, ensuring that conclusions from tested hypotheses are robust and applicable to a larger audience. Employing mixed methods offers a more comprehensive way to address complex research questions than relying on a single approach alone (Johnson & Onwuegbuzie, 2004). Additionally, by analysing the competitors' strategies and customer perceptions supports the development of solutions related to eco-conscious consumers, to achieve a sustainable growth for Livo.

3.1. Research Design

By integrating these methods it provides a better and comprehensive understanding of customer expectations and perceptions of Livo's offerings compared to competitors.

The qualitative component, represented by interviews and mystery shopper evaluations, allows for an exploratory examination of customer journeys. Through interviews, this research uncovers detailed insights into customer motivations, pain points, and expectations regarding Livo's energy-efficient solutions. Mystery shoppers provide firsthand narratives on customer interactions, offering specific observations on areas for improvement, as well as untapped opportunities for enhancing the customer journey. Together, these qualitative methods add depth to the analysis by identifying subjective aspects that impact customer satisfaction and loyalty.

The quantitative component, driven by surveys, complements these findings by capturing data at scale, which can be generalized to a larger population. Surveys enable statistical analysis of customer preferences, satisfaction levels, and attitudes toward Livo's sustainable offerings. This data substantiates the qualitative insights, allowing for a cross-validation of findings, enhancing reliability, and enabling clear patterns and trends to emerge.

This complementary relationship between qualitative and quantitative data supports a nuanced understanding of customer needs and behaviours, guiding Livo's strategy to seamlessly integrate Ageas's insurance solutions. By using this combined approach, the study will identify specific cross-selling opportunities and strategically valuable touchpoints in the customer journey. This method also allows Livo to align its services with customer expectations for sustainability, ultimately advancing both customer satisfaction and Livo's brand reputation.
In essence, this robust design ensures that conclusions are grounded in both rich qualitative insights and statistically supported quantitative evidence, providing actionable recommendations for Livo to strengthen its market position and differentiate itself in the energy-efficient solutions sector.

3.2. Data Collection

Each data collection method was selected to ensure a comprehensive understanding of customer behaviours and preferences in multi-risk insurance and sustainability services.

3.2.1. Interviews

Interviews give the opportunity to have a more insightful, and one-on-one interactions with respondents, allowing for a deeper understanding of their decision-making processes. Conducted over two weeks, these interviews were held either face-to-face or online. The primary goal was to explore specific factors influencing respondents' choices in selecting an insurance company, such as the types of insurance products they currently had, the solutions they believed should exist but did not, their receptiveness to innovative insurance products like energy-efficient solutions, and whether they sought new products proactively or purchased only when needed.

The target groups for these interviews were segmented into three distinct categories: insured individuals, uninsured individuals, and new seekers of insurance. This segmentation aimed to capture a wide range of customer perspectives, aligning with best practices in insurance research that emphasize understanding diverse customer segments (Albrecht & Auer, 2021; Kuo, et al., 2020). To ensure balanced representation across categories, participants were selected using stratified sampling, a method chosen for its ability to capture diverse viewpoints within each segment. By including perspectives from insured individuals, uninsured individuals, and new seekers, the study captures a comprehensive view of customer motivations and barriers, allowing us to identify segment-specific needs and opportunities for innovative insurance solutions.

A total of eight interviews were conducted, with three interviews for insured, three interviews for uninsured, and two interviews for new seekers, facilitating an in-depth exploration of each segment's specific concerns, expectations, and attitudes toward innovative insurance offerings. This qualitative approach was particularly valuable for uncovering detailed feedback on customer pain points and desired improvements that might not emerge through survey methods alone.

To analyse the qualitative data gathered from these interviews, thematic analysis was applied, following the framework established by Braun and Clarke (2006) and Saldaña (2013). This approach allowed for a systematic identification of patterns and themes, resulting in a deeper understanding of the customer journey and preferences within each target segment. The insights obtained through thematic analysis informed the design of the subsequent survey, aligning it with qualitative findings and ensuring a well-rounded perspective on customer needs and behaviours.

3.2.2. Mystery Client

A mystery client approach was used to assess Livo's customer service and that of its competitors by simulating the experience of a potential customer. This method aimed to evaluate customer interactions, negotiation of terms, and responsiveness to inquiries, with a focus on differences between in-person and telephone consultations, product negotiability, and the overall service experience. Key factors observed included response times, staff knowledge, and clarity in product explanations, especially when presenting bundled products.

This approach was particularly useful in revealing both strengths and weaknesses in customer interaction strategies and real-world marketing effectiveness of bundled insurance and energy-efficient solutions (Wilson, 2020). Mystery client evaluations offered practical insights that supplemented the qualitative interview data, completing the qualitative phase of the research.

For the mystery client process, evaluations involved contacting multiple insurers, including Ageas, to observe firsthand how inquiries were handled and how multi-risk insurance products, when bundled with energy-efficient solutions, were presented. This allowed for an objective assessment of cross-selling opportunities, quality of customer engagement, and engagement with sustainable product offerings. By capturing detailed interactions, this approach identified

critical areas for service improvement and provided a basis for refining customer-facing strategies.

3.2.3. Internal Data

The analysis of the internal data was selected to provide an insightful perspective on customer behaviour, product adoption, and operational opportunities. This approach uncovers insights into multi-risk insurance and energy-efficient solutions, aligning closely with the research objectives. By analysing data from Livo and Ageas, particularly in understanding real customer interactions and performance metrics. Internal datasets, such as CRM records, sales reports, and customer journey data, provide a knowledgeable look into customer demographics, buying behaviours, and satisfaction levels. This level of detail is critical for exploring bundled solutions like efficient windows and solar panels.

This methodology was particularly important for the research objectives, as it enabled the identification of actionable strategies to improve customer journeys. Allying internal data findings with survey and interview results, the analysis ensured a comprehensive view of customer needs and operational gaps.

3.2.4. Surveys

Surveys were conducted to quantify insights gained from prior qualitative methods, aiming for a broad understanding of customer preferences, behaviours, and perceptions of bundled insurance with energy-efficient products. This method enabled the collection of data on the impact of bundled solutions, specifically the combination of insurance with energy-efficient offerings, by reaching a wide and diverse sample. The broad reach of online surveys allowed for a detailed examination of general customer behaviours, openness to multi-risk insurance bundles, and interest in sustainable solutions (Bauer, et al., 2014).

The survey questions were structured using a mix of Likert scale and multiple-choice formats, designed to assess product appeal, satisfaction levels, likelihood of adoption, and perceived barriers to adoption (Malhotra & Birks, 2012). Likert scale questions provided insights into customer attitudes and strength of preferences, while multiple-choice questions enabled categorization of respondents based on current product use, openness to new offerings, and demographic factors.

Distributed via Qualtrics, the survey targeted a sample of 242 respondents, specifically individuals aged -25 to 55+ in Portugal. This demographic was chosen to align with consumer segments likely to show interest in both insurance and energy-efficient solutions, representing a key audience for bundled offerings.

Data analysis utilized descriptive statistics to identify overall trends and cross-tabulations to explore correlations between demographics and product appeal, such as the relationship between age groups and openness to sustainable solutions. This approach offered a deeper understanding of demographic influences on customer attitudes toward bundled products, enabling a more targeted interpretation of which factors most significantly impact interest and adoption.

3.3. Hypotheses Development

Based on the study's objectives and the chosen data collection methods, the following hypotheses are proposed to guide the analysis of customer behaviour and preferences regarding bundled insurance with energy-efficient solutions.

- **Hypothesis 1**: Customers who encounter sustainability information early in their insurance research or during initial consultations are more likely to value energy-efficient solutions in bundled insurance offerings.
- **Hypothesis 2**: Customers who receive personalized service touchpoints during the policy exploration phase are more likely to adopt additional products, such as cross-sold energy-efficient solutions alongside their multi-risk home insurance.
- **Hypothesis 3**: Customers who experience clear and personalized guidance throughout the insurance purchasing journey are more likely to opt for bundled solutions that integrate energy-efficient products.

3.4. Limitations

While this study employs a robust mixed-methods approach to capture a comprehensive understanding of customer preferences and behaviours regarding bundled insurance and energy-efficient solutions, several limitations should be acknowledged.

Firstly, the smaller sample size in qualitative interviews, does not fully capture the diversity of customer journeys. Given the restricted time and lack of resources, it was not possible to reach

a saturation in the content of interviews. As a result, the qualitative insights obtained, though detailed, might not capture the entire spectrum of customer experiences and preferences. Secondly, the mystery client approach introduces additional limitations, primarily due to its reliance on subjective observations. This method, although insightful for understanding customer service and quality in interactions, includes potential researcher bias, as the interpretations are shaped by the mystery client's individual perspective. Furthermore, the limited scope of this method, covering only a small selection of companies and customer touchpoints, may not accurately represent the industry. Additionally, Livo's current customer interaction model presents a limitation: direct communication with the company is primarily possible when scheduling an in-home consultation. During the research, this was not feasible, as we did not require any of their services and were not prepared to proceed with a service commitment. As such, inviting someone to our home for a consultation would not align with the purpose of our research. The surveys, though effective for reaching a broad audience, may have responses that lack depth. While some respondents might give a more superficial, others offer valuable quantitative data, with rich insights describing or revealing complex attitudes and behaviours.

Despite these limitations, the integration of multiple methods provides a well-rounded approach, balancing the breadth of quantitative insights from surveys with the depth of qualitative perspectives from interviews and mystery client evaluations. This combination ensures that the study captures both general trends and detailed insights, offering a comprehensive view of customer behaviours, attitudes, and preferences related to bundled insurance and energy-efficient solutions. While generalizability may be constrained, the findings remain valuable for informing targeted strategies and further research in this area.

4. Data Analysis

In a study investigating the customer journey in multi-risk insurance and sustainable solutions, data analysis plays a crucial role. It enables researchers to extract meaningful insights, identify trends, and uncover relationships within datasets, supporting informed decision-making and strategic development (Hair, et al., 2020).

Analysing data in customer-oriented studies is essential because it allows for the identification of behavioural patterns, preferences, and potential areas of improvement, facilitating enhanced

customer experiences (Brown & Jayakody, 2022). This chapter outlines the analytical procedures applied to interpret the collected data to ensure the accuracy and reliability of findings. By continuously examining the dimensions of the customer journey, this study aims to identify opportunities to enhance and refine the customer experience, to improve customer satisfaction and contribute to an innovative model for integrating energy efficiency within multi-risk insurance frameworks (Smith, 2021).

4.1. Interviews

The following sections outline the analysis of the interviews (appendix 1), demonstrating how insights from the data support the findings of this research. The analysis was conducted using thematic analysis, allowing for the identification of patterns and themes across the data. While the structure was based on the customer journey—pre-purchase, purchase, and post-purchase phases—the interviews were further categorized based on their relevance to insurance companies (insured, uninsured, and new seekers). To maintain confidentiality, the names of the insurance companies were not disclosed; however, one of the interviewees was a client of Ageas.

4.1.1. Pre-Purchase Phase

Insured participants often had some level of familiarity with their existing providers but lacked awareness of sustainable options integrated into insurance products. This gap represents an opportunity for Livo and Ageas to educate customers early in the customer journey about the added value of energy-efficient solutions. A similar situation happened with the uninsured individuals, who expressed limited awareness of energy-efficient options, which diminished their perceived necessity for such solutions. This highlights the importance of proactive communication and marketing strategies to address knowledge gaps.

New seekers emphasized their interest in sustainable solutions but raised concerns about practical implementation, especially for specific living situations like apartments. Demonstrating relevance to diverse contexts during this stage is critical. Building trust during initial interactions emerged as a key factor. Participants valued transparency and personalized guidance, which influenced their openness to exploring new insurance options.

Theme	***Code***	***Description***
Familiarity with the Provider	*Loyalty*	Participants with prior knowledge or a connection to an insurance company were more likely to choose it over unfamiliar options
Perception of need	*Price*	Participants noted that high costs influenced their prioritization, often perceiving sustainable solutions as non-essential

Awareness & Knowledge	*Perception*	Participants highlighted a limited understanding of energy-efficient options and their benefits

Table 1: Pre-Purchase Phase (Source: Interviews Data)

There is a clear relationship between brand familiarity and loyalty. This means that participants are more likely to choose a known insurance company, instead of an unknown one. It implicates the importance of investing in building a stronger customer relationship and maintaining brand visibility as a key factor in customer retention. The cost of adopting sustainable solutions is the most influential factor in the decision-making process. It emphasizes the need for financial incentives or a clearer communication about the long-term value and savings offered by sustainable options. Lastly, the lack of awareness and overall knowledge on the impact these solutions have emphasize the importance of education and awareness campaigns to shift perceptions and increase adoption rates.

4.1.2. Purchase Phase

Interviewees who experienced clear and customized explanations of product benefits were more likely to consider adopting bundled solutions. Effective, tailored communication played a significant role in influencing purchasing decisions. Recommendations from trusted third parties, such as family, friends, or reviews, significantly impacted the perception of reliability and value during this phase. High upfront costs of energy-efficient solutions posed a barrier across all interviewees. Bundled offers that clearly demonstrated financial benefits, such as discounts or long-term savings, were more appealing to interviewees. Insured interviewees highlighted the importance of trust in claims handling and service reliability during decision-making. Negative past experiences often deterred them from trying new solutions. Addressing these concerns through transparent processes is essential.

Theme	***Code***	***Description***
Communication's impact	*Effectiveness*	Communication about benefits encouraged participants to consider sustainable solutions.
Personalization and Trust	Trust	Participants who experienced a personalized approach were more likely to trust the provider.
Price and accessibility	*Price*	Participants noted that the high upfront cost of energy-efficient solutions was seen as a barrier.
Influence of third parties (recommendations)	*Reputation*	Participants highlighted those recommendations from trusted third parties (friends, family, online reviews) significantly influenced their perception of the provider's reputation.

Table 2: Purchase Phase (Source: Interviews Data)

Communication plays a pivotal role in informing about the benefits of sustainable solutions. Sustainability solutions companies focus should be developing communication easy-to-understand highlighting both immediate and long-term advantages. Moreover, a personalized

approach implies a relationship based on trust in the company. Again, the initial investment remains as a barrier to difficult to overcome, emphasizing the need for more accessible financing options, subsidies, or phased payment plans to improve adoption rates.
Lastly, recommendations from known sources are seen as one of the most influential forms of impacting the perceived reliability of a company.

4.1.3. Post-Purchase Phase

Reliability and performance of energy-efficient products were critical in ensuring satisfaction. Interviewees who received reliable, high-performing products expressed greater loyalty to the provider. Positive post-purchase experiences, such as consistent follow-ups and clear communication, reinforced customer loyalty and increased the perceived value of bundled solutions. Interviewees emphasized the importance of understanding long-term benefits like cost savings and environmental impact. Trust in the provider was strengthened by reliable and consistent post-purchase services. Clear and structured follow-up processes further solidified customer confidence in both the products and the provider.

Theme	***Code***	***Description***
Product Satisfaction	*Performance*	Participants emphasized the importance of reliable services to ensuring satisfaction.
Brand engagement	*Loyalty*	Participants expressed stronger loyalty to brands with post-purchase experiences (service and/ or support).
Long-term value perception	*Perception*	Participants highlighted the importance of perceiving long-term benefits, such as cost savings and environmental impact, as key motivators for continued engagement.
Post-purchase Trust	*Trust*	Trust in the provider was reinforced when participants received post-purchase service.

Table 3: Post-Purchase Phase (Source: Interviews Data)

It is implied in this research how a product reliability can impact a person's satisfaction. This means that the more reliable a service is, the easier it is to retain customers. Companies should focus their efforts ensuring higher quality in their services to, consequently, increase and maintain customer trust. Furthermore, when having a positive post-purchase experience, the more likely the client is to be loyal to a brand. This emphasizes the importance of developing a

consistent, high-quality after-sales service. The perception of long-term benefits motivates continued engagement with the company, which means companies should emphasize their communication to endure value on their services to sustain customer interest and satisfaction.

4.2. Mystery Client

This section describes the mystery client research conducted to assess the services and customer experience offered by Livo's and Ageas' two main competitors (appendix 2). By engaging with these companies as a mystery client, this study aimed to gather insights into their customer journey, service quality, and other areas. These findings provide a new perspective that informs recommendations for improving Livo's and Ageas' own customer experience strategies.

Starting with Tranquilidade, the digital experience provided can be segmented and characterized based on service quality where it excels in providing a seamless and user-friendly digital experience. The intuitive design of their website, efficient navigation, and clear guidance through the insurance simulation process reflect a customer-centric approach. When it comes to usability, the website's step-by-step structure prevents users from feeling overwhelmed, ensuring a smooth flow from data entry to policy customization. For the communication and, consequently, the customer satisfaction there are follow-up emails, summarizing policy details and outlining next steps, showcases clear and proactive communication. This leads to a high satisfaction that is evident due to the transparent customization options and flexible payment plans, which cater to individual preferences. The digital touchpoint reflects Tranquilidade's commitment to creating a positive customer journey. As for the phone experience, the interaction demonstrated professionalism and responsiveness. The agent's ability to explain complex policy details clearly, while tailoring the conversation to the customer's needs, underscores the company's focus on high-quality customer engagement. In terms of structured flow of the conversation, from initial contact to follow-up actions, ensures an organized and efficient experience. Offering detailed simulations and highlighting potential discounts further enhances usability. The agent's proactive approach, clear explanations, and punctuality contributed to a sense of trust and reliability. Therefore, positive outcomes are reinforced by the agent's willingness to provide additional documentation and follow through on promises, indicating strong customer satisfaction and alignment with Tranquilidade's service standards.

Moreover, in the experience with Ageas, the phone experience lacked consistency and professionalism. The informal use of WhatsApp for initial contact, coupled with unfulfilled

promises for follow-up calls, detracted from service quality. The process felt disorganized, with repetitive data requests and unclear communication protocols. The casual tone and lack of follow-through created uncertainty and mistrust in Ageas's commitment to customer service. Dissatisfaction is evident due to the agent's failure to agreed-upon timelines and lack of reliability in communication. This experience highlights areas for improvement, particularly in consistency and professional engagement.

Lastly, with an in-person experience, Fidelidade, despite spatial constraints, the branch provided a professional and clean environment. The agent's knowledge and courteous interaction reflected a high standard of service. The branch layout, while compact, facilitated an intuitive customer flow. The waiting time was reasonable, and the interaction was well-paced. The representative's ability to simplify complex insurance terms and provide tailored recommendations demonstrated effective and customer-focused communication. The overall experience was positive, with thorough explanations and follow-up offers reinforcing trust.

This analysis underscores the importance of delivering consistent, professional, and reliable customer service across all touchpoints to build trust and enhance customer satisfaction. Brands like Tranquilidade and Fidelidade highlight best practices in this regard, while Ageas could benefit from revisiting its engagement strategies to align with customer expectations.

4.3. Internal Data

Livo and Ageas internal data was analysed - with household claims processes, the customer journey of each product, most common complaints with house insurance, and customers' demographics - to provide the most insightful look into customer behaviours, sales performance, and operational opportunities. This data focused mainly on multi-risk insurance and energy-efficient solutions, particularly efficient windows and solar panels, offering a business-specific perspective on bundled solutions and cross-selling performance.

From the demographic data base, in the company's CRM system there were detailed profiles segmented by age, location, and preferences, enabling a targeted analysis of customer behaviour. It was observed that customers aged 45 to 65 had the highest adoption rates for energy-efficient solutions. In contrast, younger customers aged <30 to 30 exhibited significantly lower interest.

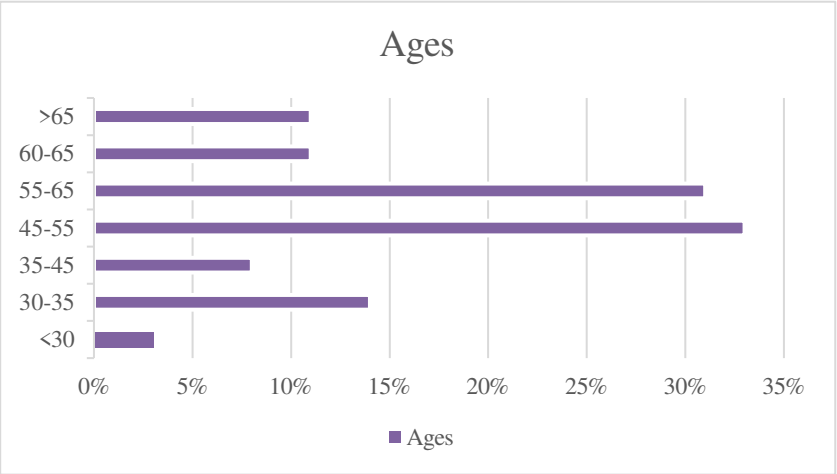

Figure 1: Livo's Consumer Profile (source: Livo)

This noted difference is due to the younger customers showing interest but note going forward with the decision because of the high upfront costs and lack of knowledge for the long-term financial benefits. These results translate the need to invest in a more tailored marketing strategy and financial messaging to address the needs of this younger demographic.

	Windows July 2023 to date	Solar Pannels July 2024 to date
Leads	16162	1576
	17	55
Proposals	2805	873
Sales	176	13
	6%	49
Lead → Sale	1,1%	0,8%

Table 4: Conversion Funnel (Source: Livo)

Data related to the sales, gave a deeper insight in the performance of bundled solutions, such as efficient windows and solar panels. The most popular product – efficient windows – with a conversion rate of 1.1%, are easily sold because of its immediate benefits, with improved comfort and energy savings. However, solar panels have a conversion rate of only 0.8%, probably due to installation complexities and financial concerns, revealing the need for clearer communication about the long-term advantages of solar panels.

The Livo team, during meetings gave an insight on qualitative feedback, which was retrieved from customers interactions and complaints, provided a deeper understanding on the customers perspective on the down points of the companies. When it comes to price sensitivity, this was a recurring issue with 40% of respondents mentioning the high upfront costs. Many customers also expressed confusion about the financial benefits of energy-efficient solutions, such as

potential energy savings or government incentives, which increased their reluctance to invest. Operational issues, such as delays in installation processes, suggest a need for more efficient service delivery and proactive communication with customers.

The analysis to the customer journey revealed the touchpoints where customer engagement failed. The efficient windows have the most common drop-offs after the budget proposal, due to lack of or delayed follow-ups from sale agents. For the same reason, during the financial approval process for the solar panels there were frustrated customers due to the lack of communication from the company. This means the follow-up processes need to be improved and start providing clear information during financing stages could significantly enhance the customer journey. With this, Ageas decided to ease the claim process by developing the digital tools needed to respond to these claims with solutions, which results in the enhancing of the customer experience.

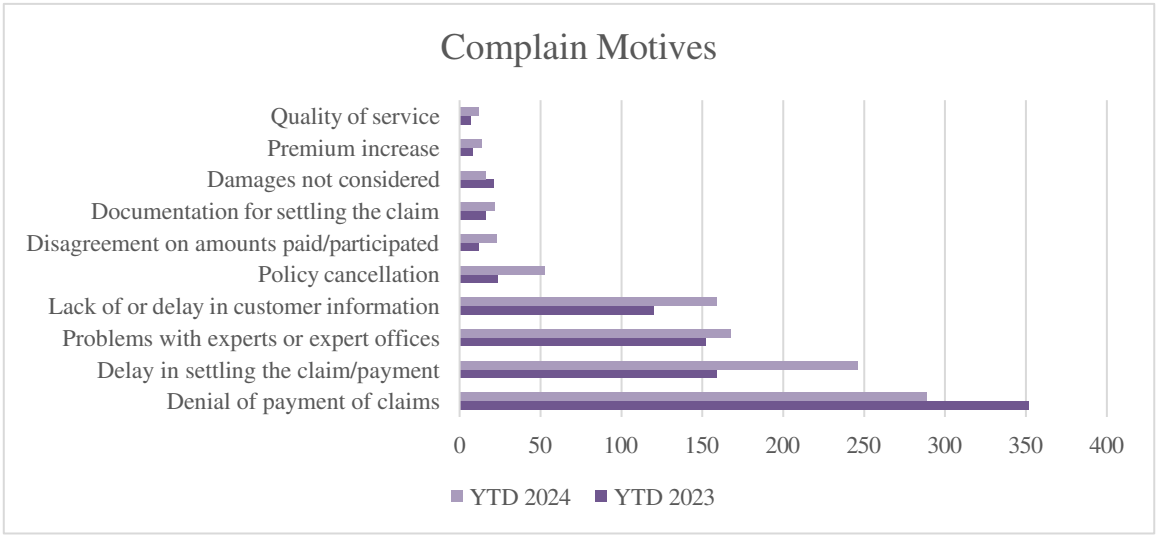

Table 5 Most frequent complain motives (Source: Livo)

When it comes to retention and loyalty, the internal data revealed favourable insights in the customer satisfaction. In meetings with Livo, it was discussed that Ageas's home insurance had a high loyalty, with 88% of their clients renewing their policies. However, the retention rates dropped slightly to 79% of clients who had already filed complaints, revealing a need to improve the post-claim engagement. For Ageas, solving these matters could mean improving customer loyalty and satisfaction, especially in occasions of renewing contracts.

Lastly, in the same analysis ran for the complains, customers provide their own suggestions with insights for possible product and service expansion. It has become more common for customers to request for additional services, such as energy certifications, painting, and

comprehensive EV charger upgrades. These suggestions are windows of opportunity for Livo to expand their services and products, responding better and quicker to the market demand.

Overall, this analysis of Livo and Ageas internal data is beneficial to determine market opportunities, readapt strategies, and enhance customer engagement. These insights revealed the opportunities the brand has on how to position themselves, and in customer engagement, satisfaction, and product adoption for multi-risk insurance and energy-efficient solutions. In meetings with Livo, it was discussed how customers who have record of receiving follow-ups have double the probability of adopting bundled solutions, underscoring the importance of effective communication. This information was given by Livo's employees who talk directly with clients.

Nevertheless, due to the lack of or incomplete feedback records, this analysis has provided insightful information from where the company can explore its services. Together with the interviews, and surveys results this analysis can provide a deeper understanding of customer needs, enabling actionable recommendations to improve cross-selling efforts, optimize customer journeys, and strengthen market positions in the sustainable products.

4.4. Surveys

This survey was conducted to in the Portuguese market with 242 answers, participants had ages under 25 years old and over 55 (appendix 3). The research wants to explore consumer behavior and preferences related to insurances, energy-efficient solutions, and the participants receptiveness to bundled products. The goal is to help Livo and Ageas to identify market opportunities considering their customer journey and design appropriate strategies.

Gender	Frequency	Percent
Masculine	148	59,9
Feminine	89	36,0
Non-binary/ Other	1	0,4
Total	238	100,0

Table 6: Respondents Gender (Source: SPSS survey analysis)

The responses gathered were from a group of 238 valid responses. The gender distribution included 148 male respondents (62.2%), 89 female respondents (37.4%), and 1 non-binary respondent (0.4%). This means a predominantly male perspective while still having other genders represented. In terms of age distribution, the sample is inclined towards older

demographics, with 38.7% of respondents aged 55+. The remaining age groups are relatively evenly distributed with under 25 years old with 14.3%, ages 25 to 34 years old with 13.4%, 35 to 44 years old with 17.2%, and 45 to 54 years old with 16.4%. The missing responses represent only 3.6% of the total sample, ensuring reliable data quality.

Ages	Frequency	Percentage
Under 25	34	13,8
25-34	32	13,0
35-44	41	16,6
45-54	39	15,8
55+	92	37,2
Total	238	96,4

Table 7: Respondents Ages (Source: SPSS survey analysis)

The main objective of this survey is to evaluate whether the information retrieved can help improve the strategic decision-making when it comes to consumer behavior, preferences, and expectations.

The data gathered will help identify opportunities in the customer journey and support the development of bundled solutions that integrate energy-efficient products with multi-risk insurance offerings. To guide the analysis, the following hypotheses were established (H1, H2, H3 previously mentioned above).

To test these hypotheses, several statistical analyses were conducted, including descriptive statistics, cross-tabulations, and regression models, among others. Each test was carefully selected to explore specific aspects of the data, from general trends to deeper relationships. By combining insights from demographics, insurance preferences, and service touchpoints, this study seeks to provide actionable recommendations for enhancing the customer journey and driving sustainable innovation.

- **H1:** Customers who encounter sustainability information early in their insurance research or during initial consultations are more likely to value energy-efficient solutions in bundled insurance offerings.

Descriptive Statistics

The question assessing respondents' familiarity with energy-efficient solutions provides an insightful look into their own awareness of sustainable products. This variable uses a 5-point scale where 1 indicates "Not at all familiar" and 5 indicates "Very familiar". The average familiarity score (2.89) reflects that most respondents are moderately familiar with energy-efficient solutions, but significant variability (SD = 1.118) suggests that a considerable portion

of the sample has limited or no awareness (appendix 4). This result shows the need for targeted educational campaigns to raise awareness among less familiar respondents, especially considering the growing importance of sustainability in insurance offerings. These findings provide foundational support for **H1**. The moderate familiarity levels highlight an opportunity to improve customer education and early engagement to boost awareness and adoption.

Correlation Analysis

To explore the relationship between familiarity with energy-efficient solutions (Q5) and the likelihood of adopting bundled solutions (Q7), both Pearson and Spearman's correlation analyses were conducted. The results provide insights into how customer awareness influences adoption behavior, addressing the first hypothesis. The Pearson correlation coefficient ($r = 0.219$, $p < 0.001$) and Spearman correlation coefficient ($\rho = 0.221$, $p < 0.001$) both indicate a weak positive correlation (appendix 5). This suggests that as familiarity with energy-efficient solutions increases, so does the likelihood of adopting bundled solutions. The statistically significant p-values confirm the reliability of this relationship. The analysis supports **H1**, emphasizing the importance of raising awareness and providing sustainability information early in the customer journey. These findings highlight the need for targeted educational initiatives to enhance familiarity and drive adoption rates. These first findings serve as a foundation for understanding the role of familiarity in influencing adoption behavior.

Regression Analysis

The regression analysis evaluates the predictive relationship between respondents' familiarity with energy-efficient solutions (Q5) and their likelihood to adopt bundled solutions (Q7). Additionally, it incorporates personalized service (Q9_4) to assess its impact on adoption likelihood.

The model explains 5.2% of the variance in the likelihood of adopting energy-efficient bundled solutions ($R^2 = 0.052$), indicating modest predictive capability. The model is statistically significant ($F(2, 236) = 6.476$, $p = 0.002$), suggesting that at least one predictor significantly influences the dependent variable (appendix 6). The “Familiarity with Sustainable Solutions” (Q5) has a significance of $p < 0.001$ which means for each unit increase in familiarity, the likelihood of adopting bundled solutions increases by 0.183 units on the Likert scale. A significant positive relationship exists between familiarity and adoption likelihood, supporting **H1**.

As for “Personalized Service” (Q9_4) the significance is $p = 0.448$ and so the coefficient for personalized service is negative (-0.044), but it is not statistically significant in this model. Personalized service does not appear to directly influence adoption likelihood in this context.

In the collinearity diagnostics, all VIF values (~1) are well below 5, confirming no multicollinearity issues between predictors (appendix 7). Moreover, there is a significant predictor in "Familiarity with Sustainable Solutions" since it emerges as a key driver of adoption, emphasizing the need for consumer education and awareness during the initial stages of the insurance research process. This finding validates **H1**, highlighting the critical role of familiarity in promoting engagement with energy-efficient options. As for a non-significant predictor "Personalized Service", this does not directly influence adoption likelihood in this context. This suggests that familiarity may play a more dominant role, or that the effect of personalization might manifest indirectly or require further contextual analysis.

The regression analysis provides empirical support for **H1**, underscoring the importance of enhancing consumer familiarity with sustainable solutions. These findings advocate for initiatives that prioritize awareness-building and education during early customer interactions. However, the non-significant impact of personalized service suggests that additional research is needed to explore its indirect effects or contextual relevance in influencing adoption behaviors.

The analysis conducted for **H1** demonstrates that familiarity with energy-efficient solutions plays a significant role in influencing the likelihood of adopting bundled solutions. Both the correlation and regression analyses highlight a positive and statistically significant relationship between these variables, emphasizing the importance of raising consumer awareness about sustainable offerings. The findings suggest that increasing familiarity with energy-efficient solutions during early stages of the insurance purchasing journey could be a key strategy to drive adoption. This validates the hypothesis that providing sustainability information early in the customer journey enhances the perceived value of bundled energy-efficient insurance solutions.

However, while personalized service was included as an additional factor in the regression analysis, its non-significant impact on adoption likelihood indicates that familiarity is the more dominant predictor in this context. This suggests that targeted educational initiatives and communication strategies focused on building consumer knowledge are likely to have a more substantial effect on adoption rates than personalization efforts alone.

These results not only support **H1** but also underline the necessity for Ageas and Livo to prioritize consumer education about energy-efficient products in their marketing and sales strategies. By fostering familiarity with such solutions, these companies can better position themselves to meet the growing demand for innovative and sustainable insurance offerings.

- **H2**: Customers who receive personalized service touchpoints during the policy exploration phase are more likely to adopt additional products, such as cross-sold energy-efficient solutions alongside their multi-risk home insurance.

Descriptive Statistics

This section analyzes responses to Service Personalization, which assesses the importance of personalized service touchpoints in influencing customer behavior during the insurance decision-making process. Understanding the perceived importance of these touchpoints is crucial for evaluating their role in promoting additional product adoption, as posited in **H2**.

The findings were a sample size (N) of 239 respondents, with a mean 3.59, suggesting that respondents generally rate personalized service as moderately to highly important; and a standard deviation of 1.029, indicating some variability in responses (appendix 8). The scale of responses ranges from 1 (Not Important) to 5 (Very Important), with a majority leaning towards the higher end of the scale. The mean score of 3.59 indicates that respondents perceive personalized service as moderately to highly important in the insurance decision-making process. The standard deviation of 1.029 suggests moderate variability, reflecting differing opinions among respondents. These findings support the premise of **H2** by highlighting the perceived value of personalized service. This midpoint mean score indicates that many respondents recognize personalized service as a significant factor in their decision-making process. This reinforces the need for personalized service touchpoints to enhance customer engagement and drive cross-selling opportunities.

Cross-Tabulation with Chi-Square Tests

To evaluate the relationship between demographics (age groups) and the perceived importance of personalized service (Q9_4), a cross-tabulation with chi-square test was conducted. The main findings were that most respondents aged 55+ rated personalized service as highly important ("4" or "5"), suggesting a strong preference for tailored interactions in this age group. Additionally, younger age groups, such as -25 and 25 to 34, showed a more distributed pattern, with lower emphasis on personalization. The chi-square test confirms a statistically significant relationship between age and the perceived importance of personalized service ($\chi^2 = 36.868$, $p = 0.002$). However, the test has some limitations, as 52% of the cells had expected counts less than 5, which could affect the robustness of the findings (appendix 9).

These results indicate that older customers prioritize personalized touchpoints during their policy exploration phase, aligning with **H2**. Strategies to engage younger segments may need

to leverage alternative approaches, such as digital tools or self-service options, to complement personalization efforts.

Correlation Analysis

To evaluate the relationship between the importance of personalized service (Q9_4) and the likelihood to adopt bundled energy-efficient solutions (Q7), a Spearman's correlation analysis was conducted. By analyzing this relationship, we aim to understand if and how personalized service influences customer decisions regarding bundled solutions. The Spearman's correlation results indicate a correlation coefficient (ρ) -0.022, which indicates an almost negative correlation. This means that as one variable increases, the other slightly decreases, but the value is so close to zero that the relationship is practically non-existent. The significance (p-value) of 0.736, since the p-value is greater than 0.05, indicating that this result is not statistically significant (appendix 10). This means we fail to reject the null hypothesis, and there is no meaningful relationship between these two variables. The sample size (N) of 239 is a sufficient sample, however, correlation remains negligible. This translates in a statistically non-existing relationship between personalized service and the likelihood to adopt bundled solutions. This hypothesis that implicates personalized service increases the likelihood of adoption, it is not supported based on this test. This suggests other factors might play a more significant role in influencing adoption decisions, or the impact of personalization is context-dependent and might not be directly measurable in this way.

Cluster Analysis

A cluster analysis was conducted to segment respondents into meaningful groups based on their familiarity with energy-efficient solutions, likelihood to adopt bundled solutions, and preference for personalized service. This segmentation helps identify distinct customer profiles that can guide targeted strategies. With this test, three clusters emerged, characterized by the following attributes Cluster 1: Higher familiarity with energy-efficient solutions (average score = 4); High likelihood to adopt bundled solutions (average score = 4); Strong preference for personalized service (average score = 4). For Cluster 2: High familiarity with energy-efficient solutions (average score = 4); High likelihood to adopt bundled solutions (average score = 4); Moderate preference for personalized service (average score = 2). As for Cluster 3: Moderate familiarity with energy-efficient solutions (average score = 2); Moderate likelihood to adopt bundled solutions (average score = 3); Moderate preference for personalized service (average score = 4) (appendix 11). As for the distance between clusters ranges from 1.98 to 2.57, indicating distinct separation among the groups.

The ANOVA results demonstrate significant differences across clusters for all three variables with a Familiarity with energy-efficient solutions ($p < 0.001$); Likelihood to adopt bundled solutions ($p < 0.001$); and Service personalization ($p < 0.001$). These results confirm that the clusters differ significantly based on the variables used. So, the cluster sizes were Cluster 1: 100 respondents (41.8%); Cluster 2: 58 respondents (24.3%); Cluster 3: 81 respondents (33.9%) (appendix 12).

Cluster 1: these are your most informed and engaged customers. They already understand the value of energy-efficient products and are willing to adopt them if the offerings feel tailored to their needs. They might be eco-conscious individuals or homeowners actively seeking sustainable improvements. This means there is a need to focus on highly personalized and advanced bundled solutions, leveraging their familiarity and enthusiasm for energy-efficient products.

Cluster 2: these customers are also familiar with energy-efficient solutions and are likely to adopt them, but they prefer less interaction and guidance. They might be confident decision-makers who value efficiency over handholding. Which means providing simplified bundled solutions with less emphasis on personalized service, ensuring cost efficiency and ease of adoption.

Cluster 3: this group has some awareness of energy-efficient products but isn't fully convinced or knowledgeable. They are open to adoption but require more education and encouragement. Their preference for personalized service suggests they value guidance to help them make decisions. Which translates into prioritizing educational campaigns to boost familiarity and awareness, paving the way for increased adoption of energy-efficient bundles.

These clusters emphasize the importance of understanding where customers are on their journey toward adopting energy-efficient solutions. By targeting each group with strategies aligned to their specific needs, you can maximize engagement, adoption rates, and customer satisfaction. This segmentation ensures that marketing and sales efforts are not wasted on irrelevant or misaligned approaches, ultimately increasing the effectiveness of your offerings.

Regression Analysis

To assess the impact of personalized service and demographic factors on the likelihood of adopting bundled solutions, a logistic regression analysis was conducted. This method was chosen as it predicts the probability of a binary outcome—whether respondents are likely to adopt bundled energy-efficient solutions (1 = Yes, 0 = No) - based on the independent variables: Service Personalization and age. The analysis aims to determine the relative importance and significance of these predictors, providing insights into whether and how these

factors influence adoption behaviour. The findings offer a nuanced understanding of how personalization and demographic characteristics interact to drive consumer decisions, addressing **H2**.

The model starts without any independent variables. It classifies responses solely based on the majority outcome, with 61.3% of responses are correctly classified just by assuming the most common outcome (appendix 13). The final model includes Service Personalization (Q9_4) to measure how much respondents value personalized service. The model's accuracy improves to 70.2%, showing that the predictors provide additional explanatory power. The Service Personalization (Q9_4) has a p-value: 0.126 (greater than 0.05), meaning it is not statistically significant (appendix 14). This variable does not significantly predict whether someone will adopt bundled solutions in this model. As for age the p-value: <0.001 (less than 0.05), meaning it is statistically significant. Odds Ratio (Exp(B)): 0.579. This means that for every unit increase in age, the odds of adopting bundled solutions decrease by about 42% (1 - 0.579 = 0.421). The Model Fit - Cox & Snell R^2 and Nagelkerke R^2, 12.4%-16.9% variance explained. This suggests that the model captures some important factors but that other variables might also play a role. This can also mean “Yes” (Adopting Bundles) with 76.7% of the time or “No” (Not Adopting) with 59.8% of the time. The overall accuracy of 70.2%, which is a reasonable improvement over the baseline (61.3%). This means age is a strong predictor as older respondents are less likely to adopt bundled solutions. This might be due to factors such as lower interest in new products, less need for energy-efficient solutions, or scepticism toward bundled offerings.

Logistic regression analysis identified age as a significant predictor, showing that older respondents are less likely to adopt bundled solutions ($p < 0.001$, Exp(B) = 0.579) (appendix 15). This suggests that demographic factors, rather than personalized service alone, play a stronger role in influencing adoption decisions. The findings imply that personalized service may act as a secondary factor whose impact could depend on moderating variables such as age or familiarity with energy-efficient solutions.

These results partially address **H2**, indicating that personalized service alone may not drive adoption. Instead, targeted strategies that consider demographic differences, particularly age, are essential. Future research should explore how personalization could be optimized when combined with other factors, such as tailored messaging for older respondents or enhanced education on bundled solutions.

- **H3**: Customers who experience clear and personalized guidance throughout the insurance purchasing journey are more likely to opt for bundled solutions that integrate energy-efficient products.

Descriptive Statistics

The survey respondents were asked to rate the importance of personalized service during the decision-making process for insurance products. The mean score for this variable is 3.45 (on a 5-point Likert scale), with a standard deviation of 1.119.

This indicates that, on average, respondents find personalized service moderately important. However, the standard deviation reveals some variability in perceptions, suggesting that while some customers highly value personalized service (rating 4 or 5), others may view it as less critical (rating 1 or 2). This variability highlights the need to explore whether demographic factors or customer segments influence these differing perceptions.

The findings support the idea that personalized service is a valued component of the customer journey, which aligns with **H3**. The respondents were also asked about their likelihood of adopting energy-efficient solutions if they were included in their insurance policies. The mean score for this variable is 3.55, with a standard deviation of 0.935 (appendix 16). Compared to the importance of personalized service, the higher mean score suggests that respondents are slightly more likely to consider adopting bundled solutions. Additionally, the lower variability indicates a stronger consensus on this topic among the surveyed population. These results suggest that bundling energy-efficient solutions with insurance policies is an appealing proposition for most customers. This supports the hypothesis that a clear and guided purchasing journey, coupled with tailored offerings, can increase adoption rates. A comparison of the two variables highlights that while both factors are relevant, the likelihood of adopting bundled solutions (mean = 3.55) appears slightly stronger than the importance attributed to personalized service (mean = 3.45). Moreover, the smaller variability in responses to Q7 suggests that customers are more unified in their opinions about the appeal of bundling energy-efficient solutions compared to their perceptions of personalized service.

These descriptive findings provide initial support for **H3**, emphasizing the importance of enhancing the customer journey with both clear guidance and appealing bundled offerings. However, further statistical analyses, such as ANOVA and correlation, are necessary to explore the relationships between these variables and to determine whether specific customer segments perceive personalized service or guidance as more valuable.

ANOVA or t-Tests

The analysis examines how age influences the perceived importance of personalized service during the insurance purchasing process. The results of the ANOVA test ($F(4,233) = 9.121$, $p < 0.001$F(4,233) =9.121, p<0.001) demonstrate significant differences in the perceived importance of personalized service across age groups. The eta-squared effect size (0.1350.135) highlights that age accounts for 13.5% of the variability in responses. Pairwise comparisons reveal that older respondents (55+) perceive personalized service as less important compared to younger groups, particularly those aged 25 to 34 ($p < 0.001p < 0.001$) (appendix 17).

These findings suggest that personalized service strategies may need to be tailored to different age groups, with younger customers likely responding more positively to personalized guidance. This highlights the importance of demographic segmentation in enhancing the customer journey for bundled insurance solutions. Age is a significant factor in shaping attitudes towards personalized service, underscoring the need for age-targeted communication strategies to maximize the perceived value of personalized guidance in the insurance purchasing process.

The significant differences in perceived importance of personalized service across age groups (with older respondents perceiving it as less important) highlight that age may act as a moderating variable in **H3**. Younger respondents, particularly those aged 25 to 34, value personalized service more. This aligns with the hypothesis that clear and personalized guidance influences decision-making, but it suggests that this influence may not be uniform across all age groups. If younger respondents value personalized service more, they are likely to benefit more from personalized and clear guidance, increasing their likelihood to adopt bundled solutions. The results align with the broader goal of enhancing the customer journey. By identifying demographic preferences, the findings help refine the strategies to maximize the perceived value of personalized guidance, as hypothesized in **H3**.

The ANOVA results do not contradict **H3** but rather enhance its practical application. They reveal that personalized guidance is more impactful for younger customers and less valued by older customers, suggesting a need for age-tailored strategies. This demographic segmentation approach aligns with the hypothesis and supports the overall goal of optimizing the customer journey for bundled solutions.

Correlation Analysis

In examining the relationship between the importance of personalized service during the insurance purchasing process and the likelihood of adopting bundled energy-efficient solutions, a Spearman's correlation analysis was conducted. The results showed a moderate positive correlation ($\rho = 0.449$, $p < 0.001$) (appendix 18) indicating that respondents who place greater

value on personalized guidance are more likely to consider adopting bundled solutions. This statistically significant relationship underscores the role of tailored service in enhancing customer trust and satisfaction, which are the key drivers for adopting innovative insurance products.

The findings provide strong support for **H3**, highlighting the importance of integrating personalized communication strategies throughout the customer journey. For example, targeted recommendations, follow-up interactions, and responsive customer support can significantly impact the perceived value of bundled offerings. While the correlation is moderate, its significance suggests that personalized service, when combined with other factors such as product familiarity or cost considerations, can meaningfully influence customer decisions. These results advocate for insurers to adopt a customer-centric approach, particularly when engaging younger demographics who are shown to value personalized service more.

However, the moderate strength of the correlation also suggests that additional variables may contribute to adoption decisions. Future analyses, such as regression models, can help identify other significant predictors and further refine strategies for enhancing customer journeys and driving adoption rates.

Cluster Analysis

To better understand customer segments and their preferences regarding personalized service and the likelihood of adopting bundled solutions, a K-means cluster analysis was conducted. The two key variables identified were (1) the perceived importance of personalized service during the insurance decision-making process, and (2) their likelihood to adopt bundled solutions that integrate energy-efficient products.

By segmenting the respondents into clusters, this analysis aims to uncover meaningful patterns that can guide tailored strategies for each group. The results offer insights into how different customer segments perceive personalized guidance and their readiness to embrace bundled solutions, highlighting actionable opportunities to enhance the customer journey and drive adoption rates.

The analysis started with three clusters based on two variables Importance of Personalized Service (Q3): Initial cluster values were set at 4 (Moderately High), 5 (High), and 1 (Very Low). Likelihood to Adopt Bundled Solutions (Q7): Initial cluster values were 2 (Low), 5 (High), and 4 (Moderately High).

Cluster 1: Importance of Personalized Service: 4; Likelihood to Adopt Bundled Solutions: 3. Which. Means the individuals moderately value personalized service but are neutral to adopting bundled solutions. This cluster needs engagement and although they value personalized service,

their neutral stance on adopting bundled solutions suggests that further education or incentives could increase their interest in bundled solutions.

Cluster 2: Importance of Personalized Service: 4; Likelihood to Adopt Bundled Solutions: 4. Individuals moderately value personalized service and show moderate interest in adopting bundled solutions. This cluster dominates, the largest group moderately values personalized service and is moderately likely to adopt bundled solutions. This group should be targeted with general but compelling guidance and communication strategies.

Cluster 3: Importance of Personalized Service: 2; Likelihood to Adopt Bundled Solutions: 3. Individuals perceive personalized service as less important but remain neutral towards adopting bundled solutions. This cluster reflects resistance, the low importance assigned to personalized service suggests this group might prioritize other factors (e.g., price or simplicity). Strategies for this segment should focus on non-personalized, streamlined approaches. As for distance between final cluster centers, Cluster 1 and 2: Distance = 1.617; Cluster 1 and 3: Distance = 1.482; Cluster 2 and 3: Distance = 2.401. This suggests that Clusters 1 and 3 are more similar in their responses compared to Cluster 2 (appendix 19).

The ANOVA results show significant differences among clusters for both variables: Importance of Personalized Service (Q3): $F = 272.975$, $p < 0.001$; Likelihood to Adopt Bundled Solutions (Q7): $F = 97.156$, $p < 0.001$. As for the cluster sizes, Cluster 1: 53 respondents (22%); Cluster 2: 117 respondents (49%); Cluster 3: 71 respondents (29%) (appendix 20).

Regression Analysis

To examine how personalized guidance influences customer satisfaction and the likelihood of adopting bundled energy-efficient solutions, multiple linear regression analysis was conducted. The analysis explores the predictive power of personalized service (Q3) and other variables such as demographics and type of insurance. This approach aims to identify the motivators for customer satisfaction and bundled adoption, offering actionable insights into enhancing the customer journey and tailoring communication strategies for diverse customer segments.

The multiple linear regression analysis aimed to examine the impact of personalized guidance, age, and household income on the likelihood of adopting energy-efficient bundled solutions. The model was statistically significant ($F(3, 234) = 31.382$, $p < 0.001$), explaining 28.7% of the variance in the dependent variable ($R^2 = 0.287$) (appendix 21). This means the predictors impact the variation in customers' likelihood to adopt these solutions. Among the predictors: Personalized service importance was identified as the strongest and most significant predictor ($B = 0.388$, $p < 0.001$). This emphasizes the importance of personalized guidance during the insurance purchasing process, suggesting that customers who value this guidance are more

inclined to adopt bundled solutions that integrate energy-efficient products. Age also emerged as a significant predictor (B = -0.113, p = 0.004), and so younger respondents are more likely to adopt these solutions. This means younger customers may be more open to innovative or sustainable offerings, potentially due to environmental awareness. It reinforces the idea of prioritizing younger demographics in marketing strategies for bundled solutions. However, Household income did not significantly influence the likelihood of adoption (B = -0.023, p = 0.772). This translates to, within the range observed in the sample, income does not play a decisive role in shaping customers' decisions to adopt energy-efficient bundled solutions. Furthermore, this can mean these solutions are perceived as affordable or are not strongly tied to financial constraints.

From this research, personalized guidance was mentioned as the most important factor influencing adoption likelihood, followed by age. These results suggest that enhancing the customer journey with personalized service is beneficial to increasing adoption rates, particularly among younger customers.

5. Conclusion

The purpose of this research is to evaluate the possible integration of energy-efficient solutions from Livo into Ageas Portugal's insurance offerings, with a focus on enhancing the customer journey and uncovering cross-selling opportunities. This thesis was oriented by three hypothesis and three research questions, that intended on understanding customer behaviors, perceptions, and barriers related to adopting bundled sustainable insurance solutions.

The purpose of the research was to provide insights that could help understand whether Ageas and Livo can create added value by aligning sustainable solutions with multi-risk insurance offerings. The study employed a mixed-methods approach, including interviews, a survey to gather quantitative insights, and mystery client assessments to analyze the competitors' practices.

RQ1: How does the customer journey in multi-risk insurance evolve so Livo's services can provide added value?

The customer journey in multi-risk insurance provides multiple points for integrating Livo's energy-efficient solutions, aligning with the distinct phases of pre-purchase, purchase, and post-purchase. The pre-purchase phase concerns participants with limited awareness of energy-efficient options, with uninsured individuals being the least informed. This highlights a crucial

opportunity to introduce sustainability messaging early in the journey, such as through marketing campaigns, digital tools, or consultation services. Tailored educational initiatives can effectively highlight the benefits of bundled offerings, linking them directly to customer concerns such as cost savings and long-term value. The purchase phase, the decision-making process heavily depends on clear and persuasive communication. Customers were most receptive when they felt that the financial and practical benefits of bundled solutions were well-explained. Additionally, personalized service touchpoints, such as recommendations tailored to specific living situations, was perceived as a reinforcing trust and encouraging adoption. The post-purchase interactions provided an opportunity for Livo's solutions to reinforce value through consistent follow-ups, reliable product performance, and transparent long-term benefits. By maintaining engagement after the sale, Ageas and Livo can turn satisfied customers into advocates, fostering loyalty and encouraging further exploration of bundled offerings. In summary, integrating Livo's services into the customer journey involves addressing unique needs at each stage, demonstrating added value, and building trust throughout.

RQ2: To what extent do customers perceive Livo's sustainable home solutions as enhancing their insurance experience and increase cross-selling opportunities?

Livo's customers were not explicit, but from the research the general answers found were that sustainable solutions were generally positive, but it lacked on the adoption phase upon factors that influenced their willingness to embrace cross-selling opportunities. While participants acknowledged the potential environmental and cost benefits of sustainable solutions, these were not always seen as essential. Customers required concrete evidence of financial advantages, such as bundled discounts or long-term cost savings, to justify adoption. This finding translates the need to relate sustainability to tangible customer benefits, making the value proposition of energy-efficient solutions more compelling. Trust played a significant role in shaping perceptions. Participants were more likely to consider Livo's solutions when their experiences with Ageas (or other providers) demonstrated reliability, particularly in claims handling and post-purchase support. Building this trust is critical to fostering openness to cross-selling opportunities, as it reduces hesitation and reinforces the credibility of bundled offerings. Although customers see potential in these offerings, fully realizing cross-selling opportunities requires overcoming these barriers through education, transparency, and customized engagement, meaning the research question was only partially answered.

RQ3: What are the key barriers to customer adoption of bundled insurance and sustainability services between Ageas and Livo?

This research identified several barriers to adoption, highlighting the challenges that Ageas and Livo must address to create a seamless and attractive offering. Based on the interviews conducted, particularly to the uninsured people, these were unaware of sustainable options integrated into insurance products. This limited awareness results in the lack of adoption to the company's services, emphasizing the importance of a targeted marketing and awareness campaigns to introduce these solutions early and clearly articulate their benefits.

High upfront costs emerged as a dominant barrier across all customer segments. While participants valued sustainability, they consistently prioritized affordability. This finding suggests that bundling discounts or financing options might be the key to success for these solutions to reach a broader audience. Participants perceived bundled solutions as complex and difficult to evaluate. Simplifying these offerings and providing clear, concise explanations can decrease confusion and improve adoption rates.

For insured participants, past negative experiences with claims handling and customer service were a significant deterrent. Addressing these issues through enhanced transparency and reliability is critical for building trust and encouraging openness to new offerings. Customers living in apartments or other non-traditional housing faced practical challenges in implementing energy-efficient solutions. Providing modular or adaptable options tailored to diverse living situations can expand the appeal of these offerings. By addressing these barriers through targeted strategies, such as enhancing awareness, reducing costs, simplifying offerings, and ensuring consistent service quality, Ageas and Livo can create a more compelling and accessible value proposition for bundled sustainable solutions.

As for the validation of the hypothesis, **H1:** Customers who encounter sustainability information early in their insurance research or during initial consultations are more likely to value energy-efficient solutions in bundled insurance offerings.

Findings from interviews and surveys support this hypothesis, showing that participants exposed to information about energy-efficient solutions early in their customer journey demonstrated higher levels of interest. Uninsured participants displayed significant gaps in awareness of sustainable offerings. This emphasizes the importance of education efforts to fill the gap and establish the relevance of these solutions from the start. Insured participants who were familiar with energy-efficient options were more likely to recognize their potential value, further validating the impact of early exposure. These insights affirm that integrating

sustainability messaging into the pre-purchase phase can enhance interest and engagement, making this hypothesis valid.

H2: Customers who receive personalized service touchpoints during the policy exploration phase are more likely to adopt additional products, such as cross-sold energy-efficient solutions alongside their multi-risk home insurance.

The research confirmed that personalized service interactions, such as tailored recommendations and follow-ups, significantly increased participants' openness to bundled offerings. In this research, it was found participants appreciated customized guidance that addressed their specific needs and concerns, such as explanations tailored to their living situations - apartments vs. houses. Follow-ups after initial consultations reinforced trust and demonstrated attentiveness, making customers feel valued and more likely to consider additional products. Both the interview results and survey data highlighted the importance of personalization in building trust and receptiveness, supporting the hypothesis that tailored service touchpoints enhance customer engagement, making this hypothesis valid.

H3: Customers who experience clear and personalized guidance throughout the insurance purchasing journey are more likely to opt for bundled solutions that integrate energy-efficient products.

While clear communication played a crucial role in addressing informational barriers, it was insufficient on its own to overcome structural challenges like high upfront costs. Participants valued transparent explanations of the financial and environmental benefits of bundled offerings, which helped mitigate skepticism, confusion, and lack of knowledge. Cost sensitivity remained a significant barrier across all customer segments, emphasizing that clear communication must be paired with financial incentives, such as bundled discounts or financing options, to increase adoption rates. While communication is necessary for reducing complexity and building trust, it must be complemented by tangible benefits to effectively address the broader adoption barriers, making this hypothesis only partially valid.

The integration of sustainable solutions into insurance offerings presents both opportunities and challenges. While customers value the potential benefits, their adoption hinges on overcoming financial and informational barriers. Competitor practices revealed critical insights, such as the importance of consistency across communication channels and the value of transparent, customer-centric digital platforms.

This research underscores the potential for Livo and Ageas to redefine the customer journey by integrating sustainable solutions into insurance offerings. By addressing gaps in awareness, providing transparent communication, and demonstrating clear financial benefits, the companies can enhance customer satisfaction and loyalty while advancing sustainability goals. The findings validate the importance of a phased, customer-centered approach, with each journey stage offering unique opportunities to educate, engage, and retain customers. While the hypotheses and research questions were largely addressed, further research is recommended to explore innovative financial models and deeper segmentation strategies to overcome the identified barriers.

Ultimately, this thesis provides actionable insights that contribute to both academic literature and practical applications, equipping Ageas and Livo to lead in the growing market for sustainable insurance solutions. By fostering a cohesive, transparent, and customer-centric experience, the partnership can set new standards for integrating sustainability into financial services, paving the way for a more sustainable future.

6. Recommendations

The recommendations are given according to the main phases of the identified customer journey - pre-purchase, purchase, and post-purchase.

- **Pre-Purchase Phase**

Start by focusing on building awareness and trust by developing educational campaigns and develop targeted campaigns to address the significant awareness gap, particularly among uninsured customers. Moreover, it is advised to use digital channels, in-person events, and educational materials to introduce the benefits of energy-efficient solutions early in the customer journey. Furthermore, develop localized and modular solutions to provide adaptable options for diverse customer profiles, such as apartment-friendly solar panels or low-cost alternatives for renters. There is also a need to assure a consistent communication across all channels that aligns with the well-known professionalism and trust of the company.

- **Purchase Phase**

By simplifying the decision-making process with tailored communication, trough the training of representatives to offer customized recommendations. This will help align with customers' financial and practical needs. It is needed to keep a transparent pricing and incentives to clearly articulate the financial benefits of bundled products, such as discounts for combining insurance with sustainable solutions or financing options to reduce upfront costs. Also, the results of the

research showed how important it is to highlight long-term cost savings to make the value proposition compelling.

- **Post-Purchase Phase**

In this phased there is a clear need to reinforce the value and trust through an impeccable product performance. The possibilities to solve these issues might be in developing structured follow-up protocols that implement consistent post-purchase engagement strategies, such as follow-up calls or emails that reinforce the value of the solutions purchased. Nevertheless, by providing updates on additional offerings or complementary products based on customer profiles might also be seen as a bonus and a personalized service. The long-term benefits to regularly communicate the environmental and financial impacts of energy-efficient solutions through performance reports or customer testimonials to maintain engagement and build loyalty.

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8. Appendix

8.1. Appendix 1: Interview script

1. How long have you had insurance, and what type of insurance do you currently have? Can you briefly describe your journey in seeking and using this insurance?

Version - Insured

Version - Uninsured

Version - New Seeker - What are you currently looking for in an insurance plan, and how do you approach searching for insurance providers?

2. Are you aware of any insurance policies that promote or support energy-efficient home solutions, such as solar panels or electric vehicle chargers?
    i. If yes: What do you know about them, and are they of interest to you?
    ii. If no: Does, this seem like something that would interest you?

    Version - Insured

    Version - Uninsured

    Version - New Seeker

3. How important is sustainability and energy efficiency when considering a new insurance policy?

Version - Insured

Version - Uninsured

Version - New Seeker – Would this influence your decision?

4. If an insurance company offered bundled services, such as discounts for installing solar panels or electric chargers, how appealing would that be to you?

Version – Insured - Would this add value to your current insurance policy, and how would it impact your overall insurance experience?

Version – Uninsured - Would such an offer make you more inclined to get insurance, and how would it affect your decision-making process?

5. What's your biggest concern or challenge when choosing an insurance provider?

Version - New Seeker – Is there anything specific you're looking to avoid or include in your new policy? What steps do you take when exploring insurance options?

6. If you must interact with an insurance provider (for claims, questions, or service), how would you rate the experience from your past interactions or expectations?

Version – Insured - How has the service been in terms of meeting your needs, and how would you describe your journey from policy selection to claim/service?

Version - New Seeker – What are your expectations in terms of customer service, and how do you anticipate navigating the insurance process?

7. Would you consider switching to an insurance provider that offers more sustainable home solutions as part of their policy?

Version – Insured - Why or why not? What would the journey of switching look like for you?

8. What factors would most likely convince you to choose a specific insurance company over others?
    i. Are there any barriers or challenges that would make you hesitant to switch providers or adopt new insurance products, such as bundled services?

Version - Insured

Version – Uninsured

Version - New Seeker

8.2. Appendix 2: Mystery Client summary

Tranquilidade

The digital experience, lived through the website: The digital journey is streamlined and intuitive, offering smooth navigation and a user-friendly simulation tool. The step-by-step process for property and personal information **entry** avoids overwhelm and enhances clarity. There are several insurance options (Base, Mais, Mais XL) which are clearly differentiated and highly customizable with add-ons (e.g., earthquake protection). There are flexible payment options (annual, semi-annual, quarterly, monthly) cater to financial preferences. A well-timed follow-up email summarizes details and outlines clear next steps, reinforcing a customer-centric approach. The key strengths are user-friendly navigation and process structure; customizable plans and transparent pricing; proactive follow-up communication.

When it comes to phone experience (with a follow-up call), after an online simulation, a follow-up call was promptly scheduled and conducted, demonstrating punctuality and proactive engagement. The agent provided clear and detailed explanations of insurance options, including add-ons like earthquake coverage. Additional products, such as auto and life insurance, were introduced with bundling discounts emphasized for added value. The service quality was marked by professionalism, warmth, and a customer-focused approach, ensuring a personalized experience. The key strengths are proactive scheduling and punctual follow-up; professional

and engaging communication; emphasis on personalized solutions and cost-saving opportunities.

Fidelidade

Starting with an in-store experience the branch visited was relatively small, featuring only three desks for agents, which contributed to a slightly crowded and overwhelming atmosphere during peak hours. Despite the limited space, the environment was clean, organized, and presented a modern, professional look. The layout was intuitive, guiding clients from the entrance to the service desks, and the waiting time remained reasonable at approximately 5 minutes. The attending staff member was welcoming and professional, greeting clients promptly and helping. Communication was courteous, with the representative making a clear effort to explain complex insurance terms in straightforward language. When inquiries were made about multi-risk insurance options, the representative provided detailed explanations, displaying a solid knowledge of the available products. Questions regarding coverage specifics and potential costs were addressed thoroughly and attentively. The representative offered tailored advice based on property details provided by the customer, avoiding any aggressive upselling. The focus remained on understanding the client's specific needs, presenting options in a supportive manner rather than pressuring additional purchases. The entire interaction took approximately 20 minutes, an appropriate amount of time given the comprehensive nature of the information covered. The process was organized and efficient, with the representative ensuring that each point was understood without making the conversation feel rushed. The visit concluded with a clear breakdown of the multi-risk insurance policy, highlighting coverage for contents and additional protections. The representative offered to send further documentation via email and recommended a follow-up within a week to address any additional questions after reviewing the materials. Overall, the experience at *Fidelidade* was positive, although the small store size contributed to a slightly overwhelming atmosphere during busier times. The environment remained professional, and the staff demonstrated a strong commitment to clear communication and customer-centered service. The approach to client interaction aligned well with *Fidelidade*'s focus on customer satisfaction, creating a favourable impression despite the space limitations.

8.3. Appendix 3: Survey Script

Section 1: Customer Journey

1. What type of insurance have you ever purchased?

- Home insurance
- Car insurance
- Health insurance
- Life insurance
- Multirisk insurance
- Pet insurance
- None
- Other (please specify)

2. How would you rate your understanding of the various insurance products available to you?

- Very Low
- Low
- Moderate
- High
- Very High

3. How important is personalized service (e.g., follow-up calls, tailored recommendations) during the insurance decision-making process?

- Not Important
- Slightly Important
- Moderately Important
- Important
- Very Important

4. When considering insurance, what communication methods do you prefer? (Select all that apply)

- In-person consultations
- Phone calls
- Emails
- Online chat
- Other (please specify)

Section 2: <u>Perceptions of Sustainable Solutions</u>

5. How familiar are you with sustainable solutions integrated into insurance offerings (e.g., energy-efficient technologies, solar panels)?

- Not Familiar
- Slightly Familiar

- Moderately Familiar
- Familiar
- Very Familiar

6. To what extent do you believe that energy-efficient solutions enhance the overall value of your insurance experience?

- Not at All
- A Little
- Moderately
- Very Much
- Extremely

7. Would you be more likely to adopt energy-efficient solutions if they were bundled with your insurance policy?

- Definitely Not
- Probably Not
- Unsure
- Probably Yes
- Definitely Yes

Section 3: Adoption Barriers

8. Do you currently have an energy solution (e.g., solar panels, electric charger, or other energy efficiency technologies) integrated into your insurance?

- Yes
- No
- I don't know

(if "no")

8.1. What are the main reasons why you don't currently have an energy solution integrated into your insurance?

- I didn't know it was possible
- High cost
- I don't trust these solutions
- I don't see the utility
- My insurance provider doesn't offer this option
- Other: _____

9. What factors would most influence your decision to adopt a bundled insurance product with sustainable options? Please rank the following factors from 1 (most important) to 5 (least important).
    - Cost savings
    - Simplicity of the product
    - Trust in the insurer
    - Personalization of service
    - Availability of sustainable solutions
10. What specific concerns do you have about integrated sustainability into your insurance products? (Select all that apply)
    - Increased costs
    - Lack of understanding of sustainable solutions
    - Uncertainty about the benefits
    - Concerns about product complexity
    - Other (please specify)

Section 4: Final Conclusions

11. What type of support or information would help you feel more comfortable adopting bundled insurance products? (Select all that apply)
    - Detailed information on benefits
    - Personalized consultations
    - Case studies or success stories
    - Access to trustworthy reviews or recommendations
    - Financial incentives or discounts
    - Other (please specify)
12. How interested are you in sharing feedback or suggestions about integrating sustainability into insurance products?
    - Not Interested
    - Slightly Interested
    - Moderately Interested
    - Very Interested
    - Extremely Interested

Section 5: Demographics

13. Age:

- Under 25
- 25-34
- 35-44
- 45-54
- 55+

14. Gender:

- Male
- Female
- Non-binary/Other

15. What is your current situation: do you have a multi-risk insurance?

- I do have a multi-risck insurance
- I do not have a multi-risck insurance
- I do not know

16. Household Income (Annual):

- Under €20,000
- €20,000–€50,000
- €50,000–€100,000
- Over €100,000

17. Type of Residence:

- Apartment
- House
- Other (please specify)

8.4. Appendix 4: Descriptive statistics – Familiarity with sustainable solutions

	N	**Mean**	**Std. Deviation**
How familiar are you to sustainable solutions integrated in insurance offers (p.e. energy-efficient technologies, solar panels)?	241	2.89	1.118
Total	241		

8.5. Appendix 5: Spearman's Correlation Analysis

	Correlation Coeficient Sig. (2-tailed)	How familiar are you to sustainable solutions integrated in insurance offers (p.e. energy-efficient technologies, solar panels)?	Would you be more likely to adopt energy-efficient solutions if they were bundled with your insurance policy?
How familiar are you to sustainable solutions integrated in insurance offers (p.e. energy-efficient technologies, solar panels)?	Correlation Coeficient Sig. (2-tailed) N	1.000 . 241	0.221** <.001 241
Would you be more likely to adopt energy-efficient solutions if they were bundled with your insurance policy?	Correlation Coeficient Sig. (2-tailed) N	0.221** <.001 241	1.000 . 241

**correlation is significant at the 0.01 level (2-tailed).

8.6. Appendix 6: Standardized Coefficients

	Unstandardized Coefficients		**Standardized Coefficients**		
Model	*B*	*Std. Error*	*Beta*	*t*	*Sig.*
Constant	3.242	0.275		11.808	<.001
How familiar are you to	.299	.051	.355	5.864	<.001

sustainable solutions integrated in insurance offers (p.e. energy-efficient technologies, solar panels)?					
Age	-.247	.041	-.386	-6.067	<.001
Gender	.224	.116	.118	1.931	.055

a.Dependent variable: Would you be more likely to adopt energy-efficient solutions if they were bundled with your insurance policy?

8.7. Appendix 7: Collinearity Statistics

	Unstandardized Coefficients		**Standardized Coefficients**			**Collinearity Statistics**	
Model	*B*	*Std. Error*	*Beta*	*t*	*Sig.*	*Tolerance*	*VIF*
Constant	.689	0.319		2.155	.032		
What type of support or information would help you feel more comfortable adopting bundled insurance products?	.214	.057	.231	3.777	<.001	.819	1.221

How familiar are you to sustainable solutions integrated in insurance offers (p.e. energy-efficient technologies, solar panels)?	.395	.055	.428	7.116	<.001	.844	1.185
Age	.083	.045	.118	1.840	.067	.740	1.351
Annual income	.034	.088	.023	.382	.702	.866	1.155

a.Dependent variable: What type of support or information would help you feel more comfortable adopting bundled insurance products?

8.8. Appendix 8: Case Processing Summary for Service Personalization Responses

	Cases Valid		**Missing**		**Total**	
	N	*Percent*	*N*	*Percent*	*N*	*Percent*
Service Personalization * What type of support or information would help you feel more comfortable adopting bundled insurance products?	239	96.8%	8	3.2%	247	100%

8.9. Appendix 9: Chi-square Analysis of Aged Groups and Personalized Service Preferences

	Value	**df**	**Asymptotic Significance (2-sided)**
Pearson Chi-Square	36.868	16	.002

Likelihood Ratio	41.284	16	<.001
Linear-by-linear Association	1.118	1	.290
N of Valid Cases	239		

a.13 cells (52%) have expected count less than 5. The minimum expected count is .44.

8.10. Appendix 10: Cross-Tabulation of Service Personalization and Adoption Likelihood

		Service Personalization * Would you be more likely to adopt energy-efficient solutions if they were bundled with your insurance policy?					Total
		Definitely Not	Probably Not	Not Sure	Probably Yes	Definitely Yes	
Service Personalization	(1) Count & % within Service Personalization	0 0%	0 0%	2 15.4%	7 53.8%	4 30.8%	13 100%
	(2) Count & % within Service Personalization	0 0%	2 8.3%	2 8.3%	20 83.3%	0 0%	24 100%
	(3) Count & % within Service Personalization	2 4.3%	4 8.7%	13 28.3%	22 47.8%	5 10.9%	46 100%
	(4) Count & % within Service Personalization	6 4.9%	18 14.8%	38 31.1%	51 41.8%	9 7.4%	122 100%

	(5) Count & % within Service Personalization	0 0%	1 2.9%	5 14.7 %	20 58.8%	8 23.5%	34 100 %
Total		8 3.3%	25 10.5%	60 25.1 %	120 50.2%	26 10.9%	230 100 %

8.11. Cluster Analysis of Customer Segmentation Based on Energy-Efficient Solutions and Service Personalization

8.11.1. Initial Cluster Centers

Initial Cluster Centers	**Cluster**	
	1	*2*
How familiar are you to sustainable solutions integrated in insurance offers (p.e. energy-efficient technologies, solar panels)?	1	5
Service Personalization	4	1
Would you be more likely to adopt energy-efficient solutions if they were bundled with your insurance policy?	1	5

8.11.2. Iteration History

Iteration History	**Change in Cluster Centers**	
Iteration	*1*	*2*
1	2.522	2.591
2	.097	.117

3	.042	.061
4	.000	.000

a. Convergence achieved due to no or small change in cluster centers. The maximum absolute coordinate change for any center is ,000. The current iteration is 4. The minimum distance between initial centers is 6,403.

8.11.3. Final Cluster Centers

Final Cluster Centers	**Cluster**	
	1	*2*
How familiar are you to sustainable solutions integrated in insurance offers (p.e. energy-efficient technologies, solar panels)?	2	4
Service Personalization	4	3
Would you be more likely to adopt energy-efficient solutions if they were bundled with your insurance policy?	3	4

8.11.4. Distances between Final Cluster Centers

Distances	**Cluster**	
Clusters	*1*	*2*
1		1.980
2	1.980	

8.12. ANOVA Analysis

	Cluster		**Error**			
	Mean Square	*df*	*Mean Square*	*df*	*F*	*Sig.*

How familiar are you to sustainable solutions integrated in insurance offers (p.e. energy-efficient technologies, solar panels)?	163.439	1	.569	237	287.043	<.001
Service Personalization	26.217	1	.953	237	27.520	<.001
Would you be more likely to adopt energy-efficient solutions if they were bundled with your insurance policy?	37.666	1	.724	237	52.042	<.001

The F tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

8.13. Model Summary of the Regression Analysis

Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*	*R Square Change*	*F Change*	*df1*	*df2*	*Sig. F Change*
1	.577	.333	.325	.772	.333	38.978	3	234	<.001

a.Predictors: (constant) How interested are you in sharing feedback or suggestions about integrating sustainability into insurance products?, Service Personalization, How important is personalized service (e.g. follow-up calls, personalized recommendations) during the insurance decision-making process?

8.14. Model Summary of the Regression Analysis

Model		*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
1	Regression	69.605	3	23.202	38.978	<.001**
	Residual	139.290	234	.595		
	Total	208.895	237			

a. Dependent Variable: Would you be more likely to adopt energy-efficient solutions if they were included in your insurance policy?

b. Predictors: (constant) How interested are you in sharing feedback or suggestions about integrating sustainability into insurance products?, Service Personalization, How important is personalized service (e.g. follow-up calls, personalized recommendations) during the insurance decision-making process?

Model		**Unstandardized Coefficients**		**Standardized Coefficients**			**Collinearity Statistics**	
		B	*Std. Error*	*Beta*	*t*	*Sig.*	*Tolerance*	*VIF*
1	Constant	1.430	.285		5.025	<.001		
	Service Personalization	.023	.049	.025	.457	.648	.975	1.026

	How important is personalized service (e.g. follow-up calls, personalized recommendations) during the insurance decision-making process?	0.375	.047	.442	7.979	<.001	.928	1.078
	How interested are you in sharing feedback or suggestions about integrating sustainability into insurance products?	.257	.051	.281	5.071	<.001	.928	1.078

a. Dependent variable: Would you be more likely to adopt energy-efficient solutions if they were included in your insurance policy?

8.15. Assessing the Impact of Service Personalization and Sustainability Interest on the Adoption of Energy-Efficient Solutions: A Regression Analysis

Dimension	Eigen Value	Condition Index	(Constant)	Service Personalization	How important is personalized service (e.g. follow-up calls, personalized recommendations)	How interested are you in sharing feedback or suggestions

					during the insurance decision-making process?	about integrating sustainability into insurance products?
1	3.791	1.000	.00	.00	.01	.01
2	.111	5.834	.01	.36	.08	.29
3	.075	7.096	.00	.02	.67	.54
4	.022	13.021	.99	.61	.24	.16

a.Dependent variable: Would you be more likely to adopt energy-efficient solutions if they were included in your insurance policy?

8.16. Impact of Personalized Service on Interest in Sustainable Insurance Solutions

Model	*R*	*R Square*	*Adjusted R Square*	*Std. Error of the Estimate*
1	.536[a]	.287	.275	.875

a. Predictors: (Constant), Household income (annual), How familiar are you with sustainable solutions integrated into insurance offers (e.g. energy-efficient technologies, solar panels), How important is personalized service (e.g. follow-up calls, personalized recommendations) during the insurance decision-making process, Age

8.17. Factors Influencing Interest in Sharing Ideas on Sustainability Integration in Insurance

ANOVA	*Sum of Squares*	*df*	*Mean Square*	*F*	*Sig.*
Regression	69.605	3	23.202	38.978	<.001[b]
Residual	139.290	234	.595		
Total	208.895	237			

a. Dependent Variable: How interested are you in sharing your ideas or suggestions on integrating sustainability into insurance?

b. Predictors: (Constant), Household income (annual), How familiar are you with sustainable solutions integrated into insurance offers (e.g. energy-efficient technologies, solar panels), How important is personalized service (e.g. follow-up calls, personalized recommendations) during the insurance decision-making process, Age

	Unstandardized Coefficients	**Standardized Coefficients**				**Collinearity Statistics**	
	B	*Std. Error*	*Beta*	*t*	*Sig.*	*Tolerance*	*VIF*
Constant	1.430	.285		5.025	<.001		
How important is personalized service (e.g. follow-up calls, personalized recommendations) during the insurance decision-making process?	.023	.049	.025	.457	.648	.975	1.026
How familiar are you to sustainable solutions integrated in insurance offers (p.e. energy-efficient technologies, solar panels)?	.375	.047	.442	7.979	<.001	.928	1.078
Age	.257	.051	.281	5.071	<.001	.928	1.078
Annual Income	1.430	.285		5.025	<.001		

a. Dependent Variable: How interested are you in sharing your ideas or suggestions on integrating sustainability into insurance?

8.18. Collinearity Diagnostics for Factors Influencing Interest in Sustainability Integration in Insurance

				Variance Proportions			
Dimension	Eigen Value	Condition Index	Constant	How important is personalized service (e.g. follow-up calls, personalized recommendations) during the insurance decision-making process?	How familiar are you to sustainable solutions integrated in insurance offers (p.e. energy-efficient technologies, solar panels)?	Age	Annual Income
1	3.791	1.000	.00	.00	.01	.01	3.791
2	.111	5.834	.01	.36	.08	.29	.111
3	.075	7.096	.00	.02	.67	.54	.075
4	.022	13.021	.99	.61	.24	.16	.022
5	3.791	1.000	.00	.00	.01	.01	3.791

a. Dependent Variable: How interested are you in sharing your ideas or suggestions on integrating sustainability into insurance?

8.19. Cluster Analysis

Cluster	1	2
How familiar are you to sustainable solutions integrated in insurance offers (p.e. energy-efficient technologies, solar panels)?	1	5
Service Personalization	4	1
Would you be more likely to adopt energy-efficient solutions if they were bundled with your insurance policy?	3	5

Iteration History	Change in Cluster	Centers
	1	2
1	2.522	2.591
2	.097	.117
3	.042	.061
4	.000	.000

a.Convergence achieved due to no or small change in cluster centers. The maximum absolute coordinate change for any center is .000. The current iteration is 4. The minimum distance between initial centers is 6.403.

Final Cluster Centers	1	2
How familiar are you to sustainable solutions integrated in insurance offers (p.e. energy-efficient technologies, solar panels)?	2	4
Service Personalization	4	3
Would you be more likely to adopt energy-efficient solutions if they were bundled with your insurance policy?	3	4

Distances between Clusters	1	2
1		1.980
2	1.980	

8.20. ANOVA Analysis

	Cluster		Error			
	Mean Square	*df*	*Mean Square*	*df*	*F*	*Stig.*
How familiar are you to sustainable solutions integrated in insurance offers (p.e. energy-	163.439	1	.569	237	287.043	<.001

efficient technologies, solar panels)?						
Service Personalization	26.217	1	.953	237	27.520	<.001
Would you be more likely to adopt energy-efficient solutions if they were bundled with your insurance policy?	37.666	1	.724	237	52.042	<.001

The F tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.

8.21. Regression Analysis

	Sum of Squares	*df*	*Mean Square*	*F*	*Sig.*
Regression	71.941	4	17.985	23.493	<.001[b]
Residual	178.378	233	.766		
Total	250.319	237			

a. Dependent Variable: How interested are you in sharing your ideas or suggestions on integrating sustainability into insurance?

b. Predictors: (Constant), Annual Income, How familiar are you to sustainable solutions integrated in insurance offers (p.e. energy-efficient technologies, solar panels)?, How important is personalized service (e.g. follow-up calls, personalized recommendations) during the insurance decision-making process?

	Unstandardized Coefficients		**Standardized Coefficients**			**Collinearity Statistics**	
	B	*Std. Error*	*Beta*	*t*	*Sig.*	*Tolerance*	*VIF*
Constant	.689	.319		2.155	.032		

How important is personalized service (e.g. follow-up calls, personalized recommendations) during the insurance decision-making process?	.214	.057	.231	3.777	<.001	.819	1.221
How familiar are you to sustainable solutions integrated in insurance offers (p.e. energy-efficient technologies, solar panels)?	.395	.055	.428	7.116	<.001	.844	1.185
Age	.083	.045	.118	1.840	.067	.740	1.351
Annual Income	.034	.088	.023	.382	.702	.866	1.155

a. Dependent Variable: How interested are you in sharing your ideas or suggestions on integrating sustainability into insurance?

				Variance Proportions			
Dimension	Eigen Value	Condition Index	Constant	How important is personalized service (e.g. follow-up calls, personalized recommendations) during the	How familiar are you to sustainable solutions integrated in insurance	Age	Annual Income

				insurance decision-making process?	offers (p.e. energy-efficient technologies, solar panels)?		
1	4.559	1.000	.00	.00	.00	.00	.01
2	.239	4.371	.00	.02	.05	.18	.26
3	.108	6.484	.00	.18	.24	.28	.29
4	.070	8.087	.02	.36	.70	.08	.26
5	.024	13.865	.98	.43	.01	.46	.18

a. Dependent Variable: How interested are you in sharing your ideas or suggestions on integrating sustainability into insurance?