



# Travel and Tails in Portugal: A Yomashi Case Study on Modern Pet Owner Trends

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## **Abstract**

This thesis examines the travel preferences and behaviour of pet owners, focusing on Yomashi, a start-up that connects pet parents with pet-friendly hotel services. The research aimed to assess the market potential of Yomashi's unique model, which integrates travel and accommodation solutions for pet owners.

The study analysed the impact of Yomashi in transforming non-pet-friendly hotels into pet-friendly spaces, creating mutual benefits for hotels and pet owners. The study also analysed the financial behaviour of pet owners, revealing a moderate spending pattern on pet care, mostly between EUR 20 and EUR 80 per month.

Key findings included a preference for independent facilities, such as flats and cottages, and the difficulty of finding pet-friendly facilities in Portugal. The study highlighted the importance of trust in Yomashi, linking trust in the brand to innovation and product perception.

Methodologically, the study used a correlation matrix to examine the relationships between variables such as age, income and monthly expenses. The results indicated a positive correlation between customer satisfaction with Yomashi and the likelihood of recommending it. The research also observed a significant change.

In conclusion, the thesis emphasises the need to balance innovation and differentiation with safety and customer service to build trust. It provides insights into effective market strategies for pet care services, focusing on targeted approaches for different customer segments based on age, spending habits and preferences.

**Title:** Travel and Tails in Portugal: A Yomashi Case Study on Modern Pet Owner Trends

**Author:** Carlo Curreri

**Keywords:** Travel Preferences, Pet Owner Behavior, Startup Yomashi, Pet Care Market Strategy, Quantitative Data Analysis, Pet-Friendly Hotel Partnerships

## **Sumário**

Esta tese investiga preferências de viagem e comportamentos de proprietários de animais de estimação em Portugal, focando na Yomashi, uma startup que liga donos de animais a hotéis amigos dos animais. Avalia o potencial de mercado do modelo inovador da Yomashi, integrando viagem e alojamento para os donos de animais.

O estudo analisou o impacto da Yomashi na transformação de hotéis não adaptados em espaços amigáveis para animais, beneficiando hotéis e proprietários. Observou-se o comportamento financeiro dos donos de animais, revelando gastos moderados em cuidados com os animais, entre 20 a 80 euros mensais.

As conclusões incluem a preferência por instalações independentes, como apartamentos e casas de campo, e a dificuldade de encontrar locais amigos dos animais em Portugal. A confiança na Yomashi, ligada à inovação e percepção do produto, é destacada.

Metodologicamente, usou-se uma matriz de correlação para examinar relações entre variáveis como idade e rendimento. Resultados mostraram correlação positiva entre satisfação com a Yomashi e probabilidade de recomendação.

Em conclusão, a tese enfatiza a necessidade de balancear inovação e diferenciação com segurança e serviço ao cliente para gerar confiança, oferecendo insights sobre estratégias de mercado para o setor de cuidados a animais de estimação.

**Título:** Viagens e caudas em Portugal: Um estudo de caso da Yomashi sobre as tendências modernas dos donos de animais de estimação

**Autor:** Carlo Curreri

**Palavras-chave:** Preferências de Viagem, Comportamento dos donos dos animais, Startup Yomashi, Estratégia de Mercado para Cuidados com Animais de Estimação, Análise de Dados Quantitativos, Parcerias com Hotéis Pet-Friendly

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## **Preface**

I would like to express my sincere appreciation to the esteemed Professor Rute Xavier. His invaluable support, valuable feedback and stimulating mentorship have been a key compass in my intellectual journey during the writing of this thesis. His expert guidance and advice have significantly enriched both my academic approach and my personal growth.

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With affection and gratitude, I extend my deepest appreciation to my family. The friendships I have made, the adventures I have had and the unique experiences I have had have left an indelible imprint on me.

I would like to sincerely thank the country that hosted me for these 18 unforgettable months. Its culture, its natural wonders and the warmth of its people have enriched my experience in ways that go beyond the purely academic. The friendships I have made, the adventures I have had and the unique experiences I have had have left an indelible imprint on me.

# 1. Introduction

## 1.1 The Company

Yomashi, a startup launched in July 2022, is dedicated to offering services to the booming pet industry, designed to construct a platform that connects service providers with their potential clients. Through this platform, providers can register, create their microsite, and promote themselves in the marketplace, with all being selected and qualified by the company itself.

Positioned in an industry emphasizing the well-being and care of pets, Yomashi is addressing a market that has manifested an increasing trend towards digitization in recent years, especially during the COVID-19 pandemic. Pets have transitioned from being “companions” to becoming an “integral part of the family,” sparking an upsurge in spending on pet-related services (American Pet Products Association, 2023)

As pets metamorphose from mere “companions” to becoming an “integral part of the family,” significant inflation in spending on pet-centric services has been witnessed, indicating a strong macroeconomic drift towards their humanization and a resultant recovery of related markets. Pet owners predominantly belong to the demographics of Generation X, Millennials, and Generation Z, which reveals the cause for the increase in pet product sales, as these cohorts exhibit a penchant for healthier alternatives for their animals and accentuate the provision of care and services for their pets. (Statista, 2022).

The founders, Pedro Andrade and Diogo Azevedo, shaped Yomashi from a crucible of personal experiences with their pets and recurring issues, which reverberate across the experiences of thousands of pet owners in Portugal daily. Challenges emerge from both ends of the spectrum – for consumers, it envelops difficulties in discovering reliable and nearby service providers, and for service providers, hurdles mount in broadening their client base and ensuring their digital visibility. Engaging with an environment largely steeped in informal dealings and minimal digitization, Yomashi is tasked with navigating through an arena where service providers are constrained in their attempts to proliferate their reach, impacting consumers directly. With a mission to transform the pet services market by increasing the value of service delivery and intensifying service penetration in pet owners' households, Yomashi aims to become the most relevant and user-friendly platform.

The startup aspires to carve its niche by raising the level of trust between consumer/provider and startup, while providing joyful experiences for pets, ensuring safety and accessibility for owners and facilitating business growth for providers.

Embedding its roots deeply within its core values, Yomashi exalts 'love for animals' as a fundamental pillar, aspiring to create a community of pet lovers who can access a straightforward (easy service), yet cleverly structured platform, and actively collaborate with various NGOs to champion animal welfare.

Holbrook (2008) propounded that pets, as extraordinary entities, should be perceived not as mere material goods, but as loyal companions with whom to engage in a variety of consumer interactions, activities comparable to those occurring in human relationships. Yomashi places unwavering belief in technology's potential to transfigure the pet care industry, making it not only more economical but also augmenting its reliability, especially based on projections that by 2020, over 88 million households would nurture at least one pet.

Moreover, Yomashi advocates several Sustainable Development Goals (SDGs), delineating specific goals such as sustainable economic growth and employment (Goal 8), sustainable consumption and production patterns (Goal 12), and reinforcing means of implementation and rejuvenating global partnerships for sustainable development (Goal 17). Primarily generating income from fees imposed on pet service providers, with pet parents remaining unburdened by costs, Yomashi's values, integrating trust, pet-loving, easy service, and animal life (inclusive of donations for assistance), are the pivotal points around which growth and sustainability strategies revolve. (Nature Sustainability, 2019).

In summary, Yomashi's core values of "trust," "pet loving," "easy service," and "animal life" are intricately embedded into their operational framework, representing not only their business knowledge but also their deep dedication towards a community of pet lovers, effortless accessibility to platforms, and a constant commitment to improving animal welfare through collaborations, reaffirming their status as a group that values and comprehends the many facets of pet ownership and care in addition to being a business.

## 1.2 Problem statement

During a significant rebound of tourism in Portugal, with an impressive 22.3 million non-resident tourist arrivals in 2022 marking a 131.4% increase from 2021, and with Lisbon emerging as a vibrant destination due to its captivating cultural allure and welcoming atmosphere, the tourism landscape inadvertently becomes a fertile ground for exploring innovative, pet-centric business models (Instituto Nacional de Estatística, 2023).

In detail, there's an evident trend of pet parents expressing a desire to have their pets join their travel adventures (Marmolejo-Martín et al. 2023). However, the evolutionary trajectory of human-pet relations, particularly within the context of tourism and emerging "dog-friendly" destinations, indicates an unmet need to adequately accommodate and serve travelling pet parents and their furry companions (Yang et al., 2021).

Therefore, the crucial question this thesis aims to analyse is: Given the growing trend of pet-friendly travel, is there a significant need among pet owners for a platform that facilitates pet travel while also guaranteeing professional, considerate, and all-inclusive pet care services during travel? Additionally, from a commercial perspective, what makes Yomashi's model effective and long-lasting in its goal of creating a coherent network between pet parents, pet-care providers, and accommodations?

By delving into in-depth market analysis, identifying the nuanced needs of pet parents and service providers, and crafting astute operational and promotional strategies, this work seeks to draft a viable business framework that seizes these dynamics, introducing innovative solutions and tactical strategies for Yomashi's effective penetration and steadfastness in the Portuguese pet services market, and prospectively, on a global stage.

This reoriented problem statement seeks to maintain the informative essence, incorporating the key statistical and citation components, while finetuning the focal point towards exploring the potential and intricacies of integrating pets into travel experiences and trying to decipher a viable business path for Yomashi among these dynamics.

## 2. Literature review

### 2.1 Consumer Behavior and Pet Parents

The pet-friendly services sector in tourism and hospitality has experienced significant growth, offering pet parents a variety of options when considering travel and leisure activities with their furry companions. Global markets have acknowledged this shift towards including pets in holiday plans, ensuring dedicated services are available for their comfort and convenience. Contemporary consumer behaviour among pet parents reveals a pattern in which the emotional and psychological bond between pet and owner plays a key role in shaping travel and vacation decisions; understanding these bonds and influencing factors allows service providers to identify a new market to explore and invest in. (Jia, L., Yang, X., & Jiang, Y., 2022).

The relationship between people and their dogs can be as close as that between humans. Dogs change the lives of the families they live with, generally improving their well-being. These dogs are considered family members. (Greenebaum, 2004) Pets in general, and dogs in particular, change the lives of the families they live with, generally improving their level of well-being. (Kirillova et al., 2015; Wu and Chang, 2021).

These dogs are not considered possessions, causing economic implications as well; they become an important part of the family, also influencing the family's spending structures (Cavanaugh et al., 2008). These data reinforce the idea that dogs play an increasingly important role in human life. (Carr, 2009; Carr and Cohen, 2009; Chen et al., 2014). It has also been shown that sharing a home with a pet and creating an emotional bond has allowed owners to lead better lives, going to the hospital less frequently and reducing the likelihood of suffering from cardiovascular diseases compared to people without dogs (Carr and Cohen, 2009). The pet is also identified as an individual with its own cultural identity (Dilek et al., 2020) and as a social enabler, facilitating the socialization of their owners (Carr and Cohen, 2009).

Travel analysis has always focused on analyzing tourists' motivations, their perceptions, and satisfaction. However, recent research has resulted in travelers with their pets, particularly with cats, but above all, dogs, having new needs both for the type of journey and the destination. It is necessary to analyze these new "pet travelers" and their role as "tourism consumers" (Huang et al., 2022) both in their place of origin and in the tourist destination.

Growing trends in the pet-friendly market are driven by a multitude of factors, ranging from increased awareness and sensitivity to pet welfare to the evident improvement in the customer experience when pets are included in travel plans; service providers, from hotels to resorts to recreational facilities, are adapting their offerings to be more inclusive and accommodating for pets and their parents.

Analyzing tourists' motivations for visiting a specific destination is essential to understand how the individual plans the trip. An individual's motivation is a dynamic process that changes according to the level of experience, the age of the consumer, or their status (Pearce, 1982). Tourists' decision to travel can be influenced by various forms of motivation (Otoo et al., 2020), which need to be analyzed separately, due to the heterogeneity of locations and the variables that influence their appeal.

Specifically, analyzing the motivations of families traveling with pets, Carr and Cohen (2009) highlighted the following motivations for traveling with a pet: firstly, the dog is part of the family; secondly, families have more fun at the destination if they travel with their pet; thirdly, families believe that traveling with their pet means their holidays will be better; fourthly, traveling with a pet means more entertainment for the whole family and facilitates group activities; and fifthly, even if the trip is more expensive, the family believes that leaving the pet at home also involves a significant economic cost.

Dog attachment influences the planning and consumption of tourist products (Peng et al., 2014). As the attachment between the family and the dog grows, so does the family's willingness to ensure the animal's well-being on vacation (Carr and Cohen, 2009; Kirillova et al., 2015), even if this may imply higher expenses.

Identifying market opportunities within this segment opens the potential for introducing and enhancing various services, such as pet-oriented recreational parks, pet-friendly beaches, accommodations, and even specialized activities designed to provide unique and enjoyable experiences for both pets and their parents.

## 2.2 Sharing Economy

The sharing economy, a concept that first emerged from the scholarly work of Felson and Spaeth in 1978, has since evolved into a complex and multifaceted economic framework. Initially, it was characterized by communal sharing and the pooling of resources, with an emphasis on the benefits of renting and using over outright ownership. This has laid the groundwork for a paradigmatic shift in consumption habits, moving away from the traditional focus on personal ownership to a preference for communal access and collaborative consumption.

In contemporary settings, the sharing economy has expanded to encompass a wide variety of models such as peer-to-peer networks, cooperative enterprises, and on-demand services, all hinged on mutual collaboration between suppliers and consumers. Hamari and colleagues' exploration in 2015 further underscored the significance of this model, noting that the sharing economy thrives through the facilitation of matching services via online platforms.

These platforms serve a critical function, connecting those who offer goods and services with those who need them, and in doing so, they help address pressing social challenges like overconsumption, effectively bypassing traditional intermediaries.

Further broadening the concept, Česnuitytė in 2022 described the sharing economy as an intricate ecosystem operating through shared human and physical resources, encompassing activities ranging from creation to consumption, thereby offering extensive benefits to various individuals and organizations. Goudin's (2016) contribution to the discourse expanded on this by cataloguing the diverse activities that the sharing economy covers. These include but are not limited to exchange, joint consumption, and shared ownership, all aimed at reducing the wastage of assets by repurposing and recycling, which is made more feasible by technological advancements that diminish transaction costs between parties.

Delving into the taxonomy of the sharing economy, Botsman and Rogers in 2011 offered a classification system that includes product service systems that negate the need for ownership, redistribution markets that facilitate the circulation of second-hand goods, and collaborative lifestyles where communities share unused resources. This model of the economy not only promotes the repeated use of resources, thus optimizing their utilization but also opens avenues for individuals to generate secondary income streams, particularly for those with irregular employment, by capitalizing on the asset-sharing potential.

Reflecting on its financial promise, PricewaterhouseCoopers (2015) has projected a remarkable growth trajectory for the sharing economy, anticipating an expansion from \$15 billion to \$335 billion in revenue over the next decade. This explosion in growth is primarily attributed to the central role of information technology, as the internet, mobile devices, and digital platforms have democratized access to a plethora of services, making peer-to-peer economic exchanges not just possible but also efficient.

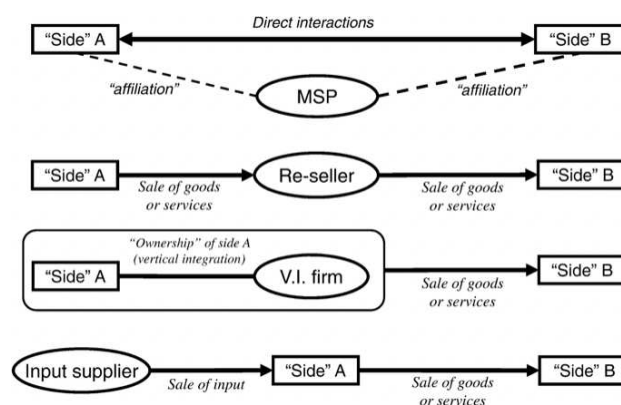


Figure i - MSPs vs. alternative business models Hagiu, A., & Wright, J. (2015). *Multi-Sided Platforms*. Source: *International Journal of Industrial Organization*, 43.

Moreover, the evolution of consumer behavior, especially in the wake of the 2008 financial crisis, has fostered a conducive environment for the sharing economy. A growing contingent of consumers seeks ways to save and augment their income, underpinned by an emerging environmental consciousness that favours the minimization of waste and maximizes the efficiency of asset use.

E-commerce, a term formally defined by Laudon and Traver in 2013 and later segmented by Rayport and Jaworski in 2022 into various transactional categories, has seen a natural convergence with the sharing economy, particularly in the consumer-to-consumer space. These online transactions are mediated by digital platforms, which are increasingly recognized as critical in establishing trust and ensuring transactional security. These platforms not only facilitate connections between individuals but also offer additional support in the sharing of resources, thus underpinning the sharing economy's promise of convenience, community involvement, and trust.

### 2.3 Navigating the Multi-Sided Platform Dynamics in Pet Care

Yomashi, as a startup in the pet service industry, has strategically positioned itself as a multi-sided platform (MSP), encapsulating the quintessential characteristics identified by seminal scholars in the MSP domain. Armstrong (2006) highlighted the competitive dynamics within MSPs, Caillaud and Jullien (2003) shed light on the importance of coordinating different user groups, and Rochet and Tirole (2003) emphasized the significance of cross-side network effects—phenomena at the core of Yomashi's operational strategy. These theoretical insights are brought into practical focus by Hagiu and Wright (2015), who analyzed the strategic implications for businesses operating within such a framework.

At the heart of Yomashi's business model is the facilitation of direct interactions between two distinct yet interdependent user groups: pet service providers and pet owners. In aligning with the MSP model, the company empowers service providers to establish microsites and market their offerings, which echoes the principle of user group coordination articulated by Caillaud and Jullien (2003). Service providers' platform-specific investments, through affiliation and engagement, create a foundation for the cross-side network effects described by Rochet and Tirole (2003), which in turn, catalyze the platform's growth by drawing in pet owners.

The digital landscape in which Yomashi operates has been significantly shaped by the COVID-19 pandemic, which accelerated the consumer shift towards digital solutions a trend presciently leveraged by the company. This shift corresponds to an increase in the anthropomorphization of pets, boosting demand for pet services and reinforcing the strategic agility of MSPs that Armstrong (2006) expounded upon. By providing a digital marketplace that seamlessly connects pet owners with service providers, Yomashi capitalizes on these evolving market dynamics.

Furthermore, Yomashi transcends the traditional economic transactional role of MSPs by embodying sustainable and ethical practices, thus reflecting a growing trend among platforms to embrace their broader societal responsibilities. Its alignment with Sustainable Development Goals (SDGs) like sustainable economic growth, responsible consumption, production, and partnerships echoes a commitment to social stewardship inherent in the modern MSP as suggested by Hagiwara and Wright's extension of MSP theory.

Looking at the potentialities that lie ahead, particularly within the Portuguese tourism sector's resurgence, Yomashi's consideration of expanding into pet-inclusive travel services is indicative of the MSP's adaptive capacity and its ability to address emergent market opportunities. This foresight aligns with recent studies by Marmolejo-Martín et al. (2023) and Yang et al. (2021), suggesting that Yomashi could fill a market void by providing pet-friendly travel options, thereby enhancing the customer experience and tapping into new revenue potentials.

In summation, Yomashi exemplifies the MSP model by fostering a symbiotic relationship between service providers and consumers. This relationship is characterized by shared affiliations and the potential for cross-group network effects. Yomashi's blend of digitalization, personalization, and sustainability mirrors the evolutionary trajectory of MSPs, positioning it to harness current market trends effectively, particularly in the emerging niche of pet-inclusive travel. Through the integration of foundational MSP principles with pragmatic execution, Yomashi stands as a paragon of the MSP model, geared for growth and poised to address both present and future market needs with agility and foresight.

### 3. Research Methodology

#### 3.1 Data collection

This research was based on research fieldwork conducted with a sample of pet owners in Portugal to analyse the owners' preferences on travel locations, and types of accommodation and understand the major challenges that they face when travelling.

This information was crucial to design a new business plan for Yomashi, a start-up that acts as an intermediary between pet owners and pet providers by offering a diverse range of high-quality services at a reasonable price.

The research aimed to investigate the initial demand of the start-up, on the possibility of creating a new strategic and exclusive partnership with hotel properties that were not yet pet-friendly, allowing a competitive advantage on both sides; on one side the exclusivity for the start-up to provide products

and services to future customers of the accommodation while on the other side a net increase in the customer base, acquiring a market range not yet achieved.

The analysis was carried out in two steps and divided into two separate chapters; the first refers to the desk analysis while the second presents and interprets the results of the survey.

### 3.1.1 Desk analysis structure

The desk analysis used in this study utilises secondary data, drawing on existing information to gain new insights. This approach focuses particularly on analysing the impact of the pandemic on the pet services industry, as well as market trends, innovation and technology integration in the sector.

The use of secondary data was essential to understand the current dynamics and potential future developments in the market sector.

The analysis is based on a detailed review of available information, including the evolution of the pet services industry and the impact of post-COVID tourism in Portugal. This allows an analysis of how these factors may influence the sector.

In terms of research design, desk analysis adopts a thematic approach, by summarising and interpreting complex information. This method allows the construction of a comprehensive view of the industry, identifying the main areas of development and emerging challenges, providing a solid basis for further analysis and discussion on the pet services market.

### 3.1.2 Survey structure

The survey method adopts an approach based on primary data collected directly through a questionnaire. The use of this method ensures that the results are directly linked to the specific research questions and objectives, ensuring the relevance and applicability of the data in the context of the study.

Data is collected through a survey that is divided into three separate sections. The first section collects demographics, the second analyses the respondents' travel habits, and the third introduces and evaluates the services offered by the Yomashi platform. This structuring of the survey allows for an in-depth and diverse analysis, covering various aspects of consumer behaviour and their pet travel preferences.

The research design is confirmatory, intending to identify the most suitable target group for the Yomashi platform. The research uses analytical tools such as correlation coefficients and statistical significance tests to examine relationships between variables. This quantitative approach provides a clear understanding of the strength and direction of these relationships, offering valuable insights into their statistical significance and reliability.

## 3.2 Desk Analysis: Market Overview

### 3.2.1 The Pet Service Industry During and Beyond the Pandemic"

The recent global crisis presented a paradox in the pet service industry, encompassing both challenges and unanticipated growth. With the onset of widespread lockdowns and social distancing norms, segments like boarding and training saw a decline, attributed to curtailed travel and restrained interpersonal engagements. Concurrently, the pervasive isolation spawned by these lockdowns also catapulted a rise in pet ownership, as individuals sought companionship amidst solitude, leading to a peculiar juxtaposition.

New pet owners ushered in varied demands across the pet service sphere. While some segments navigated through upheavals, others like grooming, veterinary services, and pet retail observed palpable growth, propelled by a newfound zeal among owners to secure quality care and products for their animal companions. Particularly, veterinary services gained momentum, as sporadic outbreaks of pet diseases underlined the necessity of regular health checks and vaccinations to ward off potential zoonotic diseases, enhancing awareness and cognizance regarding pets' health among owners (Bacevicius A., 2022).

Even with its expansive growth, the industry wrestled with persistent hurdles, ranging from fluctuating customer demands and compliance with new health norms to balancing operational costs amidst economic instability. In response, businesses in the pet industry adapted and innovated, broadening their service offerings and pioneering new pathways amidst challenges, intertwining resilience with strategic diversification.

Incorporating trends from the previously mentioned data, it's clear that the trajectory of the pet industry leans significantly towards health and wellness, with technological and DTC (direct-to-consumer) models emerging as pivotal players. The spike in niche markets, especially within the food and supplement sectors (e.g., CBD products, freeze-dried, and raw foods), indicates a proclivity towards specialized, health-oriented products.

Concurrently, the adoption of e-commerce platforms and DTC strategies, like those exemplified by Chewy.com and Pretty Litter, illustrate a robust digital presence and a propensity towards convenience among consumers (Howarth, 2023).

Moreover, a heightened focus on pet wellness is further corroborated by the increasing popularity of pet insurance and an inclination towards premium and health-centric products, illuminating a future where the wellness and digital convenience of pet products and services will likely command the industry's evolution.

It's imperative that future discussions and strategies within the pet industry not only align with this evident shift towards online, health-oriented, and premium offerings but also continue to innovate

within these spheres to cater to an ever-evolving consumer base that is progressively prioritizing the holistic wellbeing of their pets (Fortune Business Insights Analysis, 2023).

### 3.2.2 Market Trends and Innovation

Technology played an invaluable role amidst these developments, mediating the gap between service provision and pandemic restrictions. Various online services – from virtual veterinary consultations to e-commerce platforms for pet necessities, and digital matchmaking platforms connecting pet sitters and walkers with pet owners, were facilitated, ensuring a semblance of continuity in the provision of essential pet services (Fortune Business Insights Analysis, 2023).

An additional catalyst of change within this period was a swelling demand trajectory for sustainable and organic pet products. Eco-conscious pet owners began prioritizing organic food, and sustainably produced toys and accessories, propelling businesses to recalibrate their offerings. Ethical sourcing and sustainability became pivotal components within their products and services (Statista, 2022).

### 3.2.3 Pet Technology

In facing the multifaceted challenges introduced by the pandemic, a considerable faction of veterinary practitioners adopted telemedicine, ensuring continuity in consultancy and care amidst the physical restrictions. The technological underpinning of the pet service industry evolved to become a crucial pillar, safeguarding its functionality amidst the oscillations of the pandemic. Moreover, businesses assimilated technology in diverse ways, launching home-delivery services, and pivoting towards a more digitized operation model to negotiate the new norm of reduced physical interactions.

In peering into 2023, Portugal's pet service industry, informed by prior years of adaptation and growth, anticipates navigating towards a future fortified by the experiences and learnings from the pandemic (Torres, 2022). The technological advancements and a steadfast proclivity towards pet ownership position the industry at a cusp of robust future growth, contingent on its ability to continually innovate and cater to the emerging needs of pet owners amidst the oscillating socio-economic environment.

This division allows for a comprehensive exploration of the distinct facets that shaped and will shape the pet service industry, laying a robust foundation for further discussions and analyses in subsequent chapters.

### 3.2.4 Tourism in Portugal: Portugal's Tourism Post-COVID

Amidst the global upheavals induced by the COVID-19 pandemic, Portugal's tourism sector has demonstrated remarkable resilience and a promising trajectory toward recovery. In 2022, the nation experienced a welcome surge in tourist influx, hosting approximately 22.3 million non-resident visitors, albeit with a 9.6% shortfall relative to 2019 pre-pandemic levels. Particularly noteworthy is the prominent role of the Spanish market, which skyrocketed with a 97.4% increase from the preceding year, thereby asserting Spain as the predominant source of international tourists to Portugal due to its geographical proximity.

Accommodation facilities in Portugal have similarly woven a narrative of revival, with 28.9 million guests and 77.2 million overnight stays recorded, reflecting increases of 80.7% and 81.1%, respectively, though not fully reclaiming the 2019 pre-pandemic figures. Interestingly, domestic markets significantly contributed to this resurgence, guaranteeing 27.5 million overnight stays, which translates to a growth of 22.2% in 2022 and a 5.3% increment against 2019 statistics.

Crucially, the financial dimensions of Portugal's tourism sector have navigated toward encouraging waters. Notably, total revenues in tourist accommodations vaulted to 5.0 billion euros, marking a striking 115.2% upswing, and lodging revenues climbed to 3.8 billion euros, witnessing a 117.3% increment, both exhibiting commendable growth against 2019 by 16.7% and 17.9%, respectively.

While international and domestic journeys by residents have experienced some fluctuations - 22.6 million touristic voyages tallied despite a 7.5% contraction from 2019 figures - the recovery arc largely remains positive. A detailed analysis reveals that domestic journeys exhibited a 21.0% surge, accumulating 20.0 million, while international excursions registered at 2.7 million, albeit a 14.3% descent relative to 2019.

As Portugal skillfully navigates the tourism recovery corridor in the post-pandemic era, the data encapsulates a narrative of resilience, cautious optimism, and the instrumental role of neighbouring markets in bolstering recovery trajectories. The unfolding dynamics reveal a sector demonstrating commendable adaptability and strategic aptitude, albeit within a global context that remains marred by uncertainties and novel challenges. (Statista, 2022).

The rejuvenation of Portugal's tourism encapsulates the possibility of a ripple effect on its pet industry, weaving through avenues of collaborative growth and enhanced service offerings. Viewing this through a wider European lens, the synergy between tourism recovery and the pet industry could sculpt a new era of integrated services and experiences, which not only remunerates the industries but also amplifies the quality and spectrum of services available to pet parents and their beloved animals.

Table 1 - The Impact on the Pet Industry: A Portuguese and European Synopsis Source: Adapted from Statista and Euronemonitor data analysis

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<b>Surge in Pet-Friendly Accommodations</b>	The recovery in the tourism sector potentially paves the way for an uptick in pet-friendly accommodations and services. Given the enhanced inclination of pet ownership amidst the populace, accommodations and tourism establishments may augment their pet-friendly offerings, promoting inclusivity for pet owners in their travel endeavours.
<b>Pet Care Services:</b>	Envisaging the proliferation of domestic and international journeys, the demand for pet care services, like boarding facilities and pet sitters, is anticipated to amplify. This provides a fortuitous window for the pet care industry to expand and diversify its offerings, encapsulating holistic care services for pets while their owners navigate their travels.
<b>Travel with Pets</b>	For those opting to travel with their pets, this presents an opportune market for the pet industry to innovate in portable pet essentials, travel gear, and tailored services, thereby enhancing the travel experience for pets and their parents alike.
<b>Pet Transportation Services</b>	Logistics and transport services specializing in pet transit may witness a spike in demand, owing to enhanced travel. Here, the pet industry could strategically align with airlines, railways, and other transport mediums to ensure safe and conducive pet travel.

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**Impact on Pet Products and Retail:**

Tourism recuperation might also intertwine with the pet retail sector, where tourist destinations and hubs might assimilate pet retail outlets and services, thereby merging the tourism and pet care experiences.

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### 3.3 Quantitative Analysis: Survey

#### 3.3.1 Research approach

This chapter employs a confirmatory research method to identify the most suitable customer target group for the platform. It involves analyzing the preferences and demographic variables of respondents to pinpoint key implementation areas for the platform, with a focus on aligning it with the habits and preferences of potential future customers.

The research aims to identify major lodging chains suitable for partnerships to enhance their pet-friendliness. This includes evaluating options like hotels, B&Bs, private apartments, and online platforms such as Airbnb, HomeToGo, and Booking.com.

To analyze the relationships between the variables in the conceptual model, the study will use various measurement indicators. These include correlation coefficients, determination indices, statistical significance tests, and other association measures. These tools will help quantify the strength and direction of the relationships between variables, providing insights into their statistical significance and reliability.

Quantitative analysis, the chosen methodology for data approach and analysis, is a critical component of this study. It outlines a systematic approach to analyze the target customer group, addressing the research questions and achieving the study's objectives. This includes concluding the hypotheses defining this thesis.

Portugal has been selected as the primary focus for implementing the startup "Yomashi". The study centres on finding pet providers who have traveled or are currently traveling with their pets within the country. The survey will also objectively present the startup, outlining its main functionalities, vision, mission, and services offered to customers, along with potential new services that could spark interest and be added to its extensive range of offerings.

The primary goal of the research is to understand the current satisfaction level of respondents with existing market players and their interest level in the new business proposition of the startup, as well

as in other existing market entities. This approach offers a potential pathway for connecting the company with future customers.

The analysis will facilitate a detailed study of domestic tourism in Portugal, focusing on residents traveling within the country and spending at least one night away from home.

### 3.3.2 Data collection and description

The structure of the analysis is divided into three sections. The first section gathers demographic analysis of the research, such as age (*Age*), income (*Income*), and country of origin (*Country*). The second section analyzes the general travel habits of the respondents, providing more information, including monthly expenses for each pet (*Monthly\_exp*), the number of trips taken with their pet in a year (*Travel\_w\_pet*), the type of accommodation preferred by consumers (*Accommodation*), the challenges and needs people to encounter when travelling with their pets (*Needs\_whentravel*), and the level of satisfaction they have with the services currently on the market (*lvl\_satisfactionbefore*).

The third and final section objectively introduces Yomashi, providing a brief explanation of its functionality and the services currently available on the platform. The respondent will then be asked to evaluate each service, which in the dataset includes (*Overnightdogboarding*, *Doggydaycare*, *Inhomedogsitting*, *Dogwalkingservices*, *Petgroomingandspa*, *Veterinarycarevisitassistance*, *Dog\_trainingsessions*, *Pettransportation\_services*, *Emergency\_pet\_care*, *Dog\_playgroups and\_socialization\_events*) on a scale of 1 to 10. They will also measure their interest in using this platform (*Interest\_yomashi*) and the likelihood of recommending the startup after completing this survey (*Reccomend\_Yomashi*).

Data collection plays a fundamental role in acquiring the necessary information to answer the research questions and objectives. The method chosen for data collection is primary data through surveys, as it ensures that the research results are directly relevant to the research questions and objectives, as well as the specific context of the study.

The empirical research employs an efficient and inclusive approach using an online survey as a tool to gather comprehensive data from a diverse range of individuals. Regarding the distribution of the survey, it has been shared among pet owners in the country and subsequently with pet owners residing abroad who regularly travel to Portugal.

The survey was also published on Qualtrics and forwarded on major social platforms, including LinkedIn and Facebook groups for Pet Owners, to expand its reach and collect more responses.

### 3.3.3 Sampling

The sample design employed in this study is crafted to embody two pivotal characteristics concurrently to be considered 'valid', thereby ensuring the precision and legitimacy of the research outcomes. This necessitates the deliberate selection of participants who are not only pet owners but also individuals who have undertaken or frequently embarked on journeys to Portugal. It is crucial for the integrity of the research that the sample excludes respondents who either do not possess pets or do, yet have never ventured to Portugal.

The geographical constraints of the sample imply that respondents are either current or former residents of Europe, a criterion set to guarantee a habitual travel pattern to Portugal and to foster a profound understanding of the intricacies involved in the survey. The scale of the sample is thoughtfully determined: although valid results necessitate a baseline of 100 unique individual responses, the study ambitiously aims for a minimum of 200 responses. This strategy is adopted to enable curation of the data, effectively sifting through and excluding any omitted or irrelevant variables, thereby mitigating the risks of misinterpretation and enhancing the overall robustness of the research findings.

### 3.3.4 Data Analysis

This section outlines the approach and tools that will be employed for the analysis of collected data, encompassing the anticipated methods of analysis, statistical tests, and the software to be utilized for data processing.

The data analysis in this study adopts a quantitative methodology, to extract meaningful insights and form solid conclusions from the data. Quantitative analysis enables a systematic review of numerical data, supporting statistical testing and offering a basis for objective interpretation. To meet the research questions and objectives, the data analysis process will include a variety of graphs and analyses, such as:

Correlation analysis, to gauge the relationship degree between two or more variables, keeping in mind that correlation does not imply causation. The correlation in this research framework is used as an index that quantifies the degree of linear association between pairs of quantitative variables, ranging from -1 to +1. Extreme values indicate either perfect negative or positive correlation, while a value near zero indicates a lack of linear relationship. This step is vital for directing the investigation towards the most promising analytical perspectives.

Net Promoter Score analysis for different variables, comparing means and the number of choices made by respondents for each option.

Identification of positive or negative relationships between various variables, and graphical representation of these relationships through histograms, scatterplots, and linear relationship graphs. For the data analysis, RStudio, a robust and extensively used statistical software, will be used. RStudio offers a wide range of tools and functionalities for data manipulation, analysis, and visualization, including graphs, diagrams, histograms, and more.

## 4. Findings and Analysis

### 4.1 Data Cleaning

The data cleaning and pre-processing phase of this study involved a series of executed steps. Initially, 220 respondents were included in the study. Of these, 94% (207 respondents) completed the initial screening process, which was designed to ensure that participants owned pets and had traveled to or regularly travel in Portugal. After the exclusion of invalid responses that did not meet the specified completion criteria and a thorough examination of missing data, the dataset was narrowed down to 144 responses suitable for further analysis. This implies that only 65% of the initially gathered data was deemed analyzable. A significant challenge encountered during this phase was the presence of *NA* (not applicable) responses in the surveys, constituting 17% of the 76 total omitted data points, which had to be discarded. This limitation will be acknowledged in the study.

However, to ensure data of adequate quality, steps were taken to identify data entry errors and missing data. Additionally, a manipulation check was conducted to assess whether the data had been entered conscientiously. This involved evaluating the questions and responses to determine if there was a pattern of repetitive answers aimed at hastening the completion of the survey, rather than providing thoughtful and accurate responses. (Appendix, Survey Script)

### 4.2 Sample Characterization

#### 4.2.1 Demographics

The final dataset encompasses 144 participants, offering a comprehensive analysis of these individuals (Appendix, figure 1). The first section examines variables like Age, Country, Income, and Monthly Expenditure for each Pet (Appendix, figure 2).

The demographic profile reveals a uniform age distribution, with approximately 67% of individuals aged between 36 and over 65, and the remaining 33% aged between 18 and 35 (Appendix, figure 3). Concerning the country of origin, the respondents exhibited international diversity, hailing from a total of 5 different countries (Appendix, figure 4). However, a significant majority are from Italy and Portugal, aligning with the study's focus, with response rates of 26% and 24% respectively. Germany (19%), the United Kingdom (17%), and Spain (15%) constitute smaller samples.

Income levels were categorized into 5 brackets to maintain sensitivity and avoid bias (Appendix, figure 5). An inverse relationship is observed between the number of respondents in each section and their average net annual income. The highest income bracket (>€80,000) represents a minority of 7.6%. About 52.8% reported earning less than €20,000 net per year (29.2%) or between €20,000 and €35,000 (23.6%). The remaining 39.4% is evenly distributed across the €51,000-€65,000 (11.8%) and €65,000-€80,000 (10.4%) brackets, with about 17.4% earning between €36,000 and €50,000.

The question "Do you own a pet that you consider part of your family?" was crucial for screening respondents, creating a dummy variable where "no" was 0 and "yes" was 1, allowing only those who answered "yes" to proceed to the next section (Appendix, figure 6).

The analysis of the average monthly pet care expenses incurred by pet owners reveals a concentration of expenditure primarily within the range of 20 to 80 euros (Appendix, figure 7). Specifically, 20.83% of the owners reported monthly expenses between 20 and 40 euros. However, the majority falls within the 40 to 60 euros range, with 40 responses favouring this bracket. A notable portion, 20.14% or 29 responses, is also observed in the 60 to 80 euros range.

Additionally, a smaller segment of 13.89%, accounting for 20 respondents, indicated spending between 0 and 20 euros per month. Expenses slightly higher, in the range of 80 to 100 euros, were reported by 17.36% of the participants. These findings suggest that despite the diversity in income levels previously outlined, the general trend among pet owners leans towards maintaining a reasonable monthly budget for pet care.

#### 4.2.2 General travel habits

In the survey's second section, detailed insights were gathered regarding the travel habits of pet owners. This segment aimed to ascertain the frequency with which respondents visit Portugal annually and their preferences in various related aspects. A critical aspect of this survey phase was the allowance for participants to select certain variables multiple times. This methodology was deliberately chosen to capture a richer, more layered understanding of the participant's needs and the specific challenges they face.

When analyzing the annual travel frequency of respondents, a distinct clustering is observed around 7 and 8 trips per year. These frequencies emerged as the most prevalent, with 17 and 16 responses, respectively. Equally noteworthy is the segment of pet owners who reported traveling only once a year, also accounting for 17 responses. The data visualization, particularly the red curve in the graph, succinctly illustrates this distribution pattern. It underscores a notable peak in travel frequency at 7-8 trips annually, followed by a gradual decline. Despite these variances, the average yearly travel frequency is calculated at 5.2 trips. This figure, shaped by the diverse range of responses, suggests a

comparatively high frequency of travel among the pet owners surveyed, reflecting a significant engagement in pet-inclusive travel activities. (Appendix, figure 8).

In the conducted survey, the accommodation preferences revealed by respondents who travel with their pets leaned markedly towards options that offer greater comfort and autonomy (Appendix, figure 9). Apartments and cottages were particularly favored, chosen by 39.5% of the respondents, which translates to 92 individual preferences. This preference underscores a trend among pet owners for accommodations that provide a home-like environment and independence while traveling.

Hotels and Bed and Breakfast also emerged as popular choices, with 38.2% of respondents, amounting to 89 selections, indicating a preference for these more traditional accommodation types. This significant figure highlights that a considerable number of participants are open to conventional lodging options when accompanied by pets, potentially influenced by the availability of pet-friendly amenities and policies. This insight is key in understanding the accommodation choices of pet-traveling individuals, aligning with the research's investigative focus.

Hostels, while less popular, were still a notable preference, selected by 19.7% of participants as their accommodation type. In contrast, the 'Other' category, which includes unique lodging options like tents and campgrounds, garnered minimal interest, chosen by only 4 individuals or 2.6% of the sample. This suggests a limited appeal for these alternative accommodations among the surveyed group.

The survey's findings reveal a rich tapestry of tourist inclinations within the examined sample. A pronounced preference for mountainous or hilly landscapes (Mountains/Hill places) is evident, with a substantial 33.3% of the sample, translating to 85 individuals, favouring these natural settings. Seaside locations are the next popular choice, drawing 26.7% of the participants, which accounts for 68 individuals.

Cities and surroundings hold appeal for 21.2% of the respondents, or 54 individuals, indicating a preference for the amenities and cultural offerings of city life. Historical towns, renowned for their rich cultural heritage and architectural beauty, attract 15.3% of the survey participants, comprising 39 individuals. This interest suggests a keen appreciation for historical and architectural richness.

A smaller yet notable 3.5% of the sample, representing 9 individuals, express interest in other, more unconventional destinations. This category includes a variety of less typical locations, highlighting the diverse range of interests and preferences present within the group. (Appendix, figure 10)

The survey's examination of the challenges faced by travelers with pets has uncovered a range of prevalent needs and difficulties.

The quest for pet-friendly accommodations stands out as the foremost challenge. A significant 29.2% of respondents, amounting to 102 individuals, identified this as their primary concern, emphasizing the critical importance of pet-inclusive hospitality in travel decisions.

Securing suitable dining options for pet owners emerges as the second most significant challenge, chosen by 16.0% of participants, which includes 56 individuals. This highlights the demand for pet-accommodating dining establishments. The task of finding a trustworthy pet sitter was noted by 15.5% of the sample, equivalent to 54 people, reflecting the need for reliable pet care during travels. Health and safety concerns constitute another key issue, with 13.5% of respondents, or 47 individuals, regarding these as significant concerns. This aspect could encompass the accessibility of veterinary facilities or managing pet well-being while on the move.

Among other less frequent but equally important challenges are difficulties in finding accessible transport logistics, mentioned by 8.6% of participants (30 individuals), and restrictions imposed by airlines, pointed out by 7.2% of the sample (25 people). Interestingly, only 0.9% of respondents, corresponding to a single individual, highlighted the challenge of locating accessible beaches or parks, possibly indicating a lower perception of this difficulty within the sample or greater ease in accessing such amenities.

In summary, the chart detailing the challenges encountered by pet-traveling individuals (to be appended as 'challenges' in the figure reference) presents a hierarchy of needs. These range from the more pressing concerns like pet-friendly lodging and dining options to the more manageable ones, such as accessing suitable recreational spots. (Appendix, figure 11)

The concluding query of the second section of the survey involved presenting respondents with a Net Promoter Score (NPS) to gauge their satisfaction with the current services available for traveling with pets. The rating scale spanned from 0 (highly dissatisfied) to 10 (extremely satisfied). In the NPS framework, scores from 0 to 6 are categorized as detractors, 7 and 8 as passives, and 9 and 10 as promoters.

The analysis of responses reveals a significant clustering around the middle scores, with both scores 4 and 5 garnering 31 selections each (Appendix, figure 12). This suggests that a considerable portion of the sample falls into a neutral or slightly dissatisfied stance regarding the current market offerings. The tally for score 6, with 20 selections, indicates a notable group of individuals who feel moderately satisfied.

On the other hand, the extremes of the scale, encompassing very low scores of 1 and 2 (with 7 and 15 selections respectively) and high scores of 9 and 10 (with 4 and 2 selections respectively),

represent minority viewpoints within the sample. These responses indicate that only a few respondents feel either extremely dissatisfied or extremely satisfied with the offered services.

The spread of responses suggests a significant potential for enhancing services related to pet travel, as the average satisfaction score indicates only moderate contentment among the participants. This insight points towards a need for service improvement to better cater to the diverse needs and expectations of pet-travelling individuals.

#### 4.2.3 Demand for a Pet-Inclusive Travel Platform

After objectively introducing the startup without influencing the respondents, the first question posed to them was a Net Promoter Score (NPS). In this, the respondents rated their interest in the newly introduced company on a scale from 0 to 10. This measure, labelled as "lvl\_interest," is crucial for assessing whether interest in the company increased after the respondents had a more in-depth look at the platform, or if it remained consistent. (Appendix, figure 13).

The second question in this section is a Net Promoter Score query, framed as "On a scale of 1 to 10, how would you rate this service in terms of...?", followed by a series of attributes for the respondents to evaluate. These attributes include "*Useful*", "*Original*", "*Innovative*", "*Convenient*", "*Easy to Use*", and "*Cost-Effective*". This survey approach enabled respondents to express their perceived value of the proposed service.

The attribute "Originality" garnered the highest average score, at 4.13, suggesting that respondents find the service notably unique. "Ease of Use" followed closely with an average of 3.90, indicating the service is perceived as intuitive and user-friendly. "Usefulness" and "Cost-Effectiveness" received average scores of 3.62 and 3.53, respectively, reflecting a general perception of practicality and economic benefit. "Innovativeness" and "Convenience" scored slightly lower, with averages of 3.49 and 3.33, showing a more moderate view of these aspects of the service.

These findings present an overall neutral perspective, indicating room for further enhancements and improvements in the service. (Appendix, figure 14)

The individual services offered by Yomashi have been collated into a new dataset for detailed statistical analysis, providing insights into average ratings, standard deviations, minimum and maximum values, and the 25th and 75th percentiles, along with median values. This comprehensive analysis offers a nuanced understanding of each service's appeal. (Appendix, figure 15)

"Dog playgroups and socialization events" emerged as the top-rated service with an average score of 8.10, signifying a strong interest among respondents. On the other hand, "Pet grooming and spa" recorded the lowest average at 1.5, indicating comparatively lesser interest.

Services focused on health and well-being, such as "Emergency pet care" and "Veterinary care visit assistance," garnered average interest levels of 7.9 and 7.5, respectively. This underscores the importance respondents place on their pets' health and wellness.

The average rating for "Pet transportation services" stood at 7, while "Dog walking services" had a moderate yet significant average of 5.8, reflecting a balanced interest in these offerings.

Day-to-day assistance services like "Doggy Daycare" and "In-home dog sitting" achieved average scores of 4.3 and 5.3, suggesting they are perceived as useful but not essential.

In summary, "Dog playgroups and socialization events" and "Emergency pet care" emerged as the most highly valued services. This indicates that socialization opportunities and emergency health care are top priorities for the pet owners in the sample. (Appendix, figure 16)

Analyzing the first Net Promoter Score (NPS) graph regarding *interest in Yomashi*, there is a clear inclination towards higher scores. Notably, the score of 10 peaks with 28 responses, indicating a strong interest among respondents in Yomashi's services. Other significant spikes at scores of 7 and 9 suggest that many participants hold a positive view of the startup. These results are underscored by an average score of 7.28, illustrating a generally favourable perception of the services offered (Appendix, figure 17).

In the second NPS graph, which assesses the likelihood of participants recommending Yomashi, the response distribution follows a similar pattern. The highest concentration of responses is at a score of 10, with 30 entries. Scores of 7 and 9 also register high, with 26 and 29 responses respectively, indicating that Yomashi's services are well-regarded among the respondents. This trend is reflected in an average score of 7.47, revealing a positive disposition towards the company.

A comparison of both NPS graphs reveals a symmetry between the declared interest in Yomashi's services and the willingness to recommend the company. In both instances, higher scores signify a positive opinion. The joint examination of these data sets does not reveal significant discrepancies. Instead, their correlation suggests that a marked interest in Yomashi's services tends to be accompanied by a propensity to recommend them. This aligns with the principle that customers with a high level of satisfaction often become promoters of the same company, contributing to its enhanced reputation. (Appendix, figure 18)

#### 4.3 Measurement of Correlation

The initial analysis involved conducting correlations between select significant variables, serving as an exploratory phase crucial for understanding the dynamics within the dataset.

To enhance the statistical investigation, certain variables were processed further. Notably, *log\_income* and *log\_monthly\_exp* were calculated to stabilize variance and mitigate potential skewness in the distribution of incomes and monthly expenses, which often exhibit a log-normal distribution in real-world data. The creation of the *age\_squared* variable aimed to explore non-linear relationships between age and other variables of interest, allowing for an analysis of effects beyond a certain age threshold. (Appendix19)

Regarding significant relationships identified, both positive and negative correlations were noted among various variables. A notable example is the correlation between *Recommend\_Yomashi* and *lvl\_satisfactionbefore*, indicating that greater prior satisfaction with Yomashi could lead to a higher likelihood of recommending the experience. This suggests that positive experiences significantly influence future decisions to endorse the startup. A positive correlation between *Interest\_yomashi* and *lvl\_interest* demonstrates a keen interest in the startup's proposition, hinting that targeted marketing campaigns could effectively heighten interest in specific products or services.

Conversely, negative relationships suggest that an increase in one variable is associated with a decrease in another. A negative correlation between *Travel\_w\_pet* and *log\_monthly\_exp* implies that those who travel more frequently with their pets tend to incur lower monthly expenses. This might reflect specific lifestyles or spending habits among pet-traveling individuals.

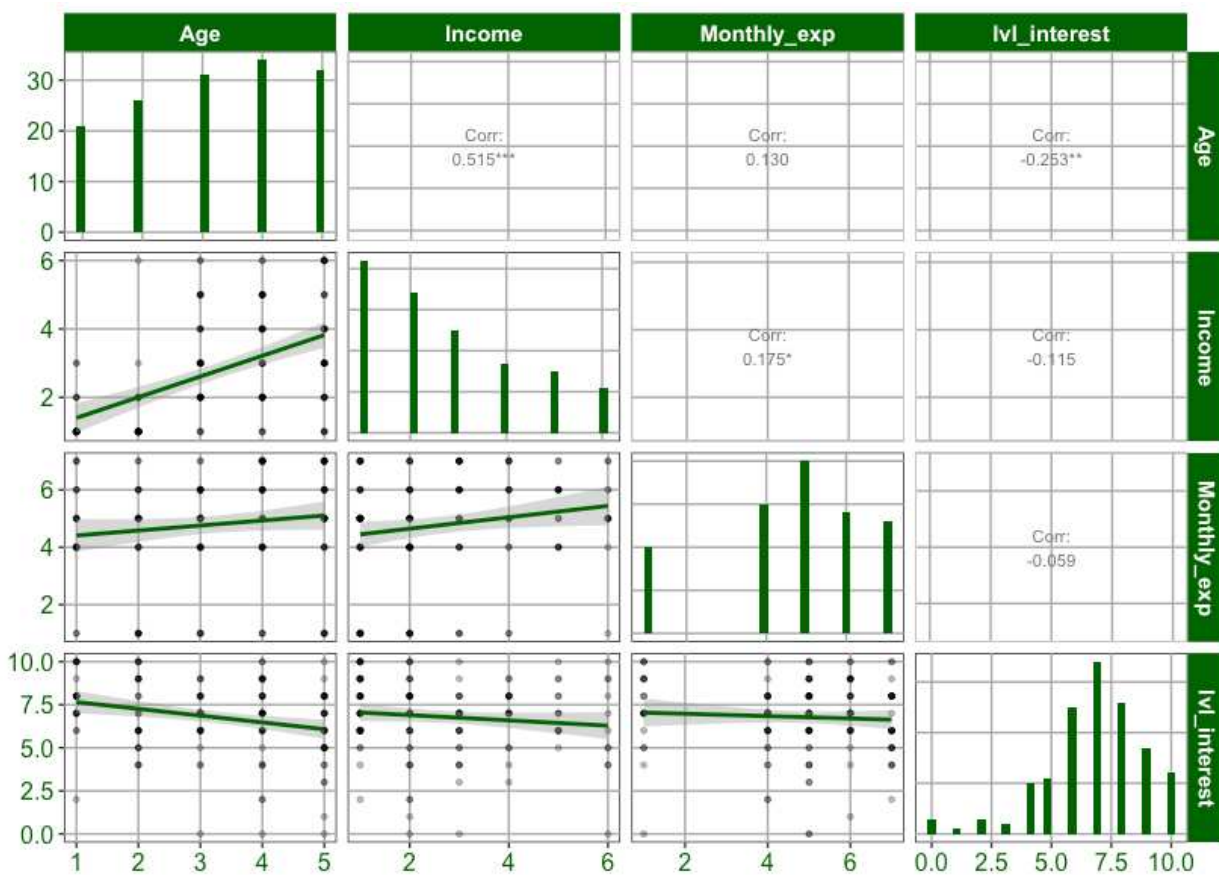


Figure ii - Correlation matrix among four variables (Age, Income, Monthly\_exp, and Lvl\_interest). Source: Survey data

In Figure 2, this deeper correlation analysis scrutinizes the significance between several variables previously introduced in the initial correlation matrix. This time, the presentation is graphical, incorporating scatter plots and histograms to explore the interrelations among four quantitative variables: *Age*, *Income*, *Monthly Expenses (Monthly\_exp)*, and *Level of Interest (Lvl\_interest)*.

The histograms along the diagonal display the distribution of each variable, while the scatter plots below the diagonal reveal relationships between pairs of variables, complemented by linear models and trend lines. Correlation values are marked with asterisks denoting statistical significance levels, with three asterisks (\*\*\*) for  $p < 0.01$ , two asterisks (\*\*) for  $p < 0.05$ , and one asterisk (\*) for  $p < 0.1$ , adding an extra layer of reliability to the observed relationships. Key findings include:

- *Age and Income*: A significant positive correlation (0.515\*\*) suggests an increase in income with age, indicating a directly proportional relationship between age and higher income. The level is significant at 1%
- *Age and Monthly\_exp*: Between the two variables there is a weak positive correlation but not significant due to the lack of asterisks (0.130), implying a slight increase in monthly expenses as age increases.
- *Age and Lvl\_interest*: A weak negative correlation (-0.253\*\*) indicates a decline in interest with age. It highlights that interest in a new startup tends to wane in older age groups, possibly due to familiarity with alternative methods to meet their pets' needs. The level is significant at 1%.
- *Income and Monthly\_exp*: A weak positive correlation (0.175\*) could suggest that higher income leads to marginally increased expenses. The level is significant at 10%
- *Income and Lvl\_interest*: A non-significant negative correlation (-0.115) shows no clear relationship between income and interest level. The correlation is not significant due to the lack of asterisks.
- *Monthly\_exp and Lvl\_interest*: A very weak negative correlation (-0.059) indicates no apparent relationship between expenses and interest. The correlation is not significant due to the lack of asterisks.

## 4.4. Exploratory Data Analysis

### 4.4.1 Age Group-Based Analysis of Pet Care Spending Patterns

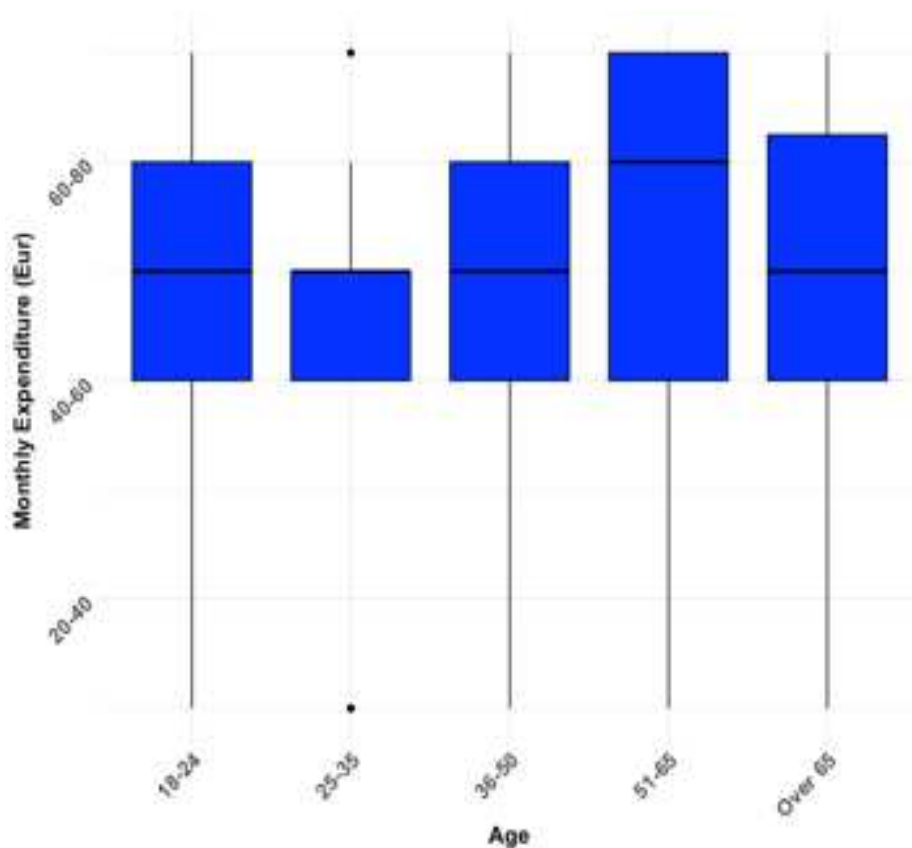


Figure iii – Boxplot analysis Age - Monthly\_exp. Source: Survey data

The Boxplot reveals a fascinating distribution of monthly expenses (*Monthly\_exp*) segmented by age (*Age*) groups, each demonstrating varied spending behaviors. The youngest group, aged "18-24," shows homogeneity in expenses with a lower median and an outlier on the lower end, indicating a tendency towards lesser spending. The "25-35" age group exhibits the least variability with expenses clustered around a lower median, possibly indicating uniform spending habits or a reluctance towards high expenditures. In contrast, the "36-50," "51-65," and "Over 65" groups display a broader dispersion of expenses, as indicated by wider Boxplots and higher medians, suggesting a trend towards increasing monthly expenditures with age.

This pattern could reflect a growth in spending capacity or shifts in spending priorities across different life stages.

#### 4.4.2 Analyzing Averages: Satisfaction, Yomashi Interest, and level of Engagement

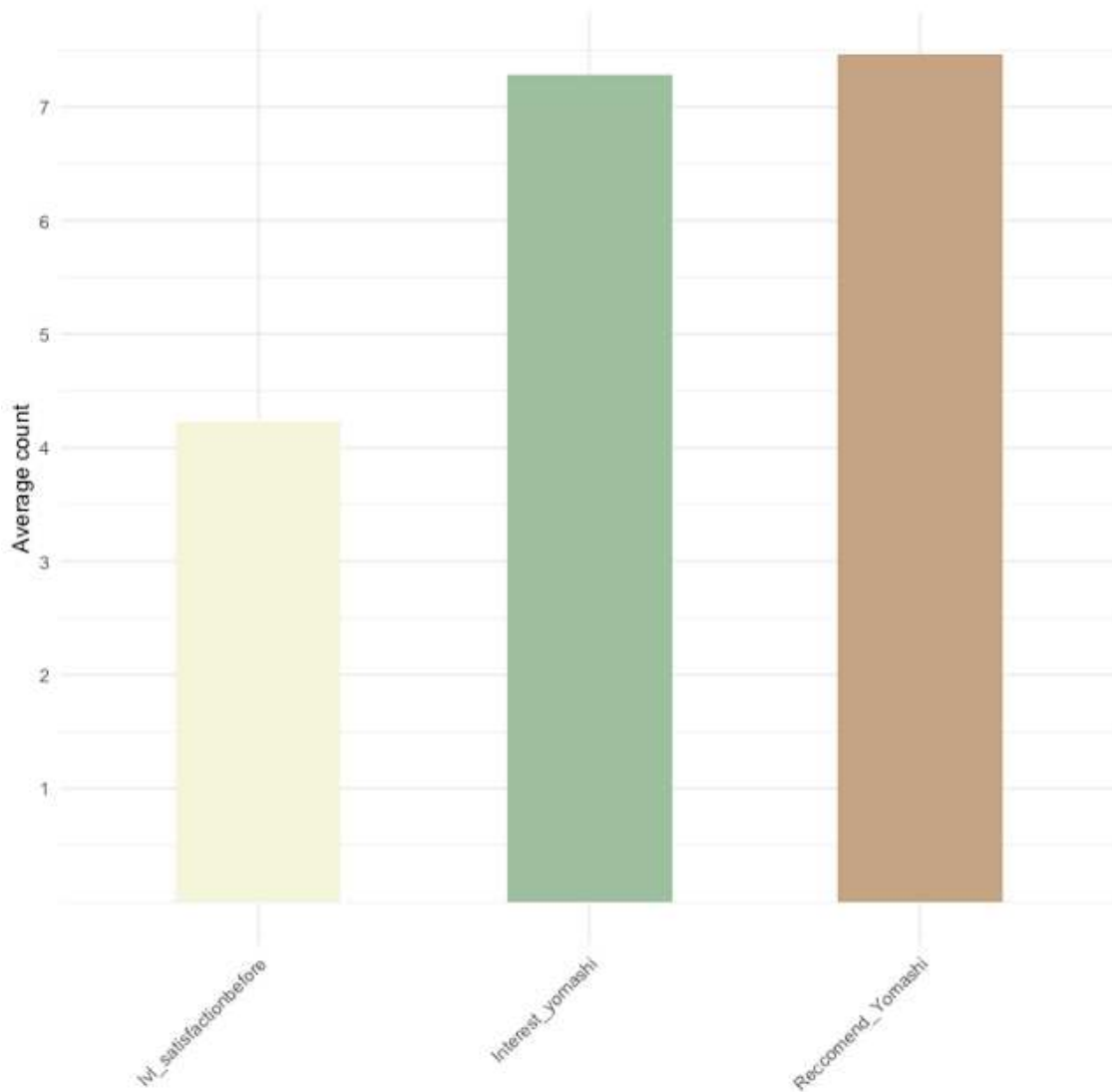


Figure iv – Averages comparison: Satisfaction, Yomashi Interest, and level of Engagement. Source: Survey data

The histogram presents the averages of two Net Promoter Score columns, assessing satisfaction levels before and after learning about the company and the level of interest in the startup.

A marked improvement in the perception of Yomashi's services is evident, moving from an average of 4.24, categorized among detractors, to an average of 7.28. This shift reflects not just heightened curiosity about the company among the 144 respondents but also a potential willingness to support and recommend it, highlighting the effectiveness of Yomashi's introduction in generating significant interest.

#### 4.4.3 Insights from Yomashi's Interest Levels Over Time (before and after)

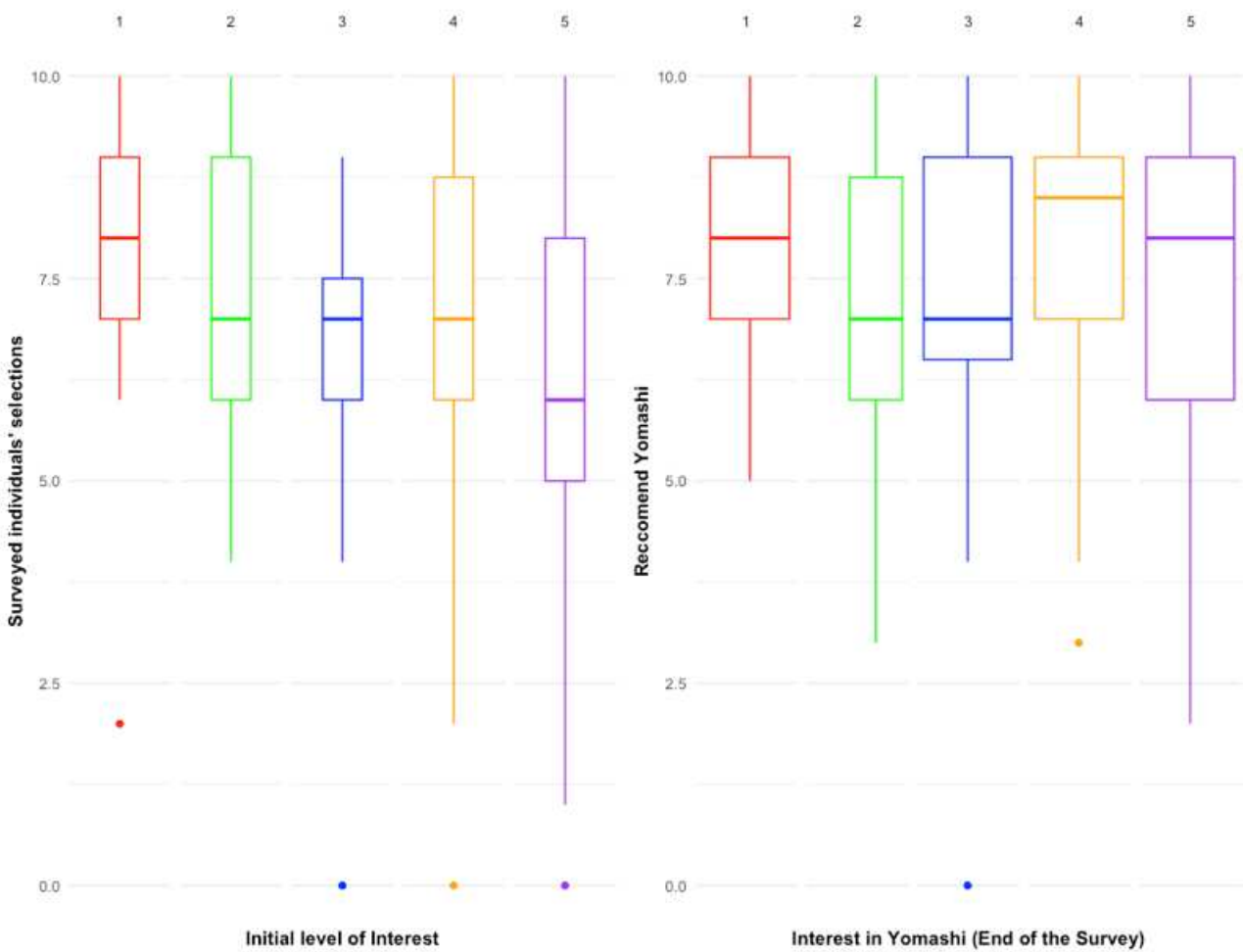


Figure v - Graphical comparison between change in level of Interest. Source: Survey data

Following the correlation analysis, two graphical models are used to better understand the negative correlation between *Age* and *Lvl\_interest*. The first model displays the initial average level of interest in Yomashi among different age groups. The correlation's findings are confirmed, showing a decrease in interest with increasing age. The median of the red boxplot (18-24 years) is around 8, while for the Over 65 age group (purple boxplot), it drops to around 6. In the initial interest level graph, outliers are particularly noticeable in the older age group, indicating minimal interest in the platform.

In the second graph, three variables are plotted: *Interest\_yomashi* on the x-axis, Level of Recommendation towards the company on the y-axis, and Age. This helps determine if interest decreases with age similarly for both new product offerings and existing market offerings. The graphical representation of boxplots allows for an analysis of the variables *Recommend\_Yomashi* (y-axis) and *Interest\_yomashi* (x-axis), divided into five age-based boxplots. This visually delineates potential differences across age ranges and whether interest changes with age between the initial introduction of the startup and the final survey question, after a detailed explanation of its services and values.

Analyzing the distribution in the second graph, the red boxplot (18-24 years) shows a median interest level around 7.8, with a moderate interquartile range indicating consistent interest in the younger age group. The blue boxplot (25-35 years) has a median near 7, with a slightly wider range, suggesting greater opinion variability. The green boxplot (36-50 years) shows a median similar to the previous one but with a slightly broader distribution, indicating consistent interest levels. Notably, outliers in this group alter its distribution.

The yellow boxplot (51-65 years) displays the highest median compared to others but also includes outliers at the lowest point, indicating varied interest levels within this age group. Finally, the purple boxplot (over 65 years) shows a median with a similar interquartile range as the first group, but a distribution skewed towards lower values, reflecting varied interest in this older demographic

## 5. Discussion

This study embarked on an exploration of the travel preferences and behaviors of pet owners, specifically evaluating the potential market for a service like Yomashi. Yomashi's unique proposition lies in its role as an intermediary between pet parents and pet-friendly hotel services, distinguishing itself by focusing on comprehensive travel and accommodation solutions for pet owners.

The strategic analysis was concentrated on assessing the impact of Yomashi's collaborations with hotels that traditionally do not accommodate pets, to transform these establishments into pet-friendly spaces. This initiative aimed to create a mutually beneficial situation for both the hotels and pet owners, with Yomashi playing a pivotal role as a facilitator in the market, addressing the demand for innovative services and securing exclusive market rights.

Financial insights indicated that pet owners generally maintain a moderate monthly budget for pet care, predominantly ranging between 20 to 80 euros. This spending pattern reflects a cautious yet dedicated approach to pet-related travel needs. The study's findings were aligned with the initial hypotheses and provided additional intriguing insights. There was a noticeable preference for independent accommodation options like apartments and cottages over hotels, pointing towards a desire for comfort and autonomy among pet owners. Regarding travel destinations, mountainous and seaside locations were preferred, followed by urban areas.

One significant challenge for pet owners traveling in Portugal was finding pet-friendly accommodations and dining options, underscoring the relevance of this study to both the target audience and the regional context. A key theme that emerged was the crucial importance of trust in Yomashi. The study demonstrated that brand trust is a vital link between product innovation and brand perception.

Remarkably, by the end of the survey, Yomashi had managed to shift its perception from a 'detractor' to a 'promoter' category, highlighting its strategic positioning and the market's receptiveness to its offerings. This shift was particularly notable given the highly competitive and rapidly evolving nature of Yomashi's service sector, where differentiation is essential for survival and growth. Yomashi's differentiation lies in the authenticity and quality of its services, focusing on reliable pet care rather than merely unique pet-centric offerings. For instance, the 'pet grooming and SPA' service, though offered, attracted the least interest, indicating customer priorities.

In the contemporary, rapidly digitalizing world, where consumers can easily find alternatives, Yomashi's need to stand out by offering high-quality and trustworthy services becomes paramount. This need for differentiation shapes everything Yomashi represents, extending beyond its brand image. This aligns with the 'novelty paradox' concept, suggesting that while consumers seek innovation, they might approach anything overly new or different with caution. Therefore, differentiation and innovation are vital for attracting interest but must be balanced with elements of security and exemplary customer service to build and maintain trust.

The investigation employed an initial correlation matrix to identify significant relationships within the dataset. Key variables were carefully selected and examined in the early phase of correlation analysis, which was crucial in building a comprehensive understanding of each variable's relevance. To deepen the statistical analysis, monetary variables were transformed into logarithmic values to stabilize variance and reduce distribution asymmetry. Additionally, the 'Age' variable was squared to enhance the analysis.

The results showcased a range of both significantly positive and negative relationships between variables. For example, the correlation between '*Recommend\_Yomashi*' and '*lvl\_satisfaction\_before*' indicated that previous satisfaction with the startup might lead to a higher likelihood of recommending the experience. This highlights the significant impact of positive past experiences on future support for the platform. Additionally, a positive correlation between '*Interest\_yomashi*' and '*lvl\_interest*' underscored the respondents' enthusiasm for Yomashi's proposal, suggesting that targeted marketing campaigns could further boost interest in specific products or services. A negative correlation was observed between frequent travel with pets in Portugal and spending on monthly pet care, indicating varying spending patterns among different user groups.

Advanced correlation analysis delved deeper into the interactions between the initial variables, using graphical representations like scatter plots and histograms. These analyses examined relationships among four quantitative variables: Age, Income, Monthly Expenses, and Level of Interest. Histograms provided visual distributions for each variable, while scatter plots below them displayed

relationships between variable pairs, augmented by linear models and trend lines. The analysis illuminated significant relationships, such as a positive correlation between age and income, suggesting an increase in income with age. A weak positive correlation between age and monthly expenses indicated a slight increase in expenses with age. In contrast, a negative correlation between *Age* and *interest* suggested a decrease in interest with advancing age, possibly due to older individuals' familiarity with alternative pet care solutions.

In terms of market strategy for pet care services, boxplot analysis indicated that older customer segments might be more lucrative targets for premium service offerings, as they tend to spend more and show greater variation in expenses. Conversely, targeting the younger age group could also be advantageous, as they may be interested in quality services at competitive prices, potentially forming a stable and loyal customer base.

## 6. Conclusions And Limitations

In conclusion, this research provides an in-depth analysis of the emerging trends in the pet care service market, with a specific focus on the startup Yomashi. As the pet service industry experiences significant growth and diversification, understanding the variables that influence consumer behaviour and perception becomes increasingly vital. This study successfully explored the intricate dynamics involved in launching a new business plan in this competitive market. It highlighted how Yomashi's differentiation in service offerings and the establishment of trust with its clientele are instrumental in shaping its brand image.

The research revealed key insights into the strategic positioning of Yomashi, especially its initiative to convert traditionally non-pet-friendly hotels into welcoming spaces for pet owners, uncovering a significant market opportunity. Financial patterns among pet owners were examined, revealing a moderate yet committed spending approach towards pet-related travel needs. The preference for independent accommodation options like apartments and cottages, and the favourability of mountain and seaside destinations, were notable findings. Moreover, the study underscored the critical role of trust in the brand, which greatly influenced customer perception and advocacy for Yomashi.

Despite these insights, the study encountered several limitations that should be acknowledged. The research sample size was constrained, with a significant segment of the initially collected data being excluded during the cleaning process, which restricted the amount of data to analyse. The absence of longitudinal data posed challenges in comparing results or projecting future trends for Yomashi, considering its status as a newly established entity in the market.

Additionally, the omission of certain variables might have led to a less comprehensive analysis, potentially overlooking factors that could offer further insights into consumer behaviour and preferences. The research was also mindful of biases such as social desirability and self-selection, which could have influenced the accuracy of the responses, despite efforts to minimize these through varied questionnaire formats.

Looking ahead, future research in this area could benefit from longitudinal studies to better understand the evolving preferences of consumers and the long-term impact of Yomashi's services. Expanding the research to include a larger and more diverse sample would likely yield more generalizable and robust findings. Furthermore, exploring additional variables, like the influence of digital marketing strategies or the role of customer service, could provide a more rounded perspective of the market dynamics.

In essence, this thesis has shed light on the complex interplay between market entry strategies, service differentiation, and trust-building in the pet care sector. The insights gleaned not only affirm the potential viability of Yomashi's business model but also set the stage for further exploration and understanding in this rapidly evolving field.

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## Appendix

Variable type: character									
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2 Accomodation	0	1	1	7	0	11	0		
3 Destination	0	1	1	7	0	18	0		
4 Needs_whentravel	0	1	1	13	0	57	0		

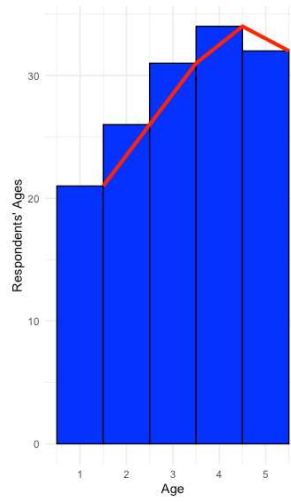
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2 Country	0	1	3.19	1.81	1	2	3	5	6		
3 Income	0	1	2.74	1.60	1	1	2	4	6		
4 Monthly_exp	0	1	4.79	1.82	1	4	5	6	7		
5 Travel_w_pet	0	1	5.18	3.31	0	2	5	8	12		
6 NPS_17GROUP	0	1	1.12	0.372	1	1	1	1	3		
7 lvl_satisfactionbefore	0	1	4.24	1.95	0	3	4	5.25	9		
8 NPS_19GROUP	0	1	1.82	0.745	1	1	2	2	3		
9 lvl_interest	0	1	6.78	2.12	0	6	7	8	10		
10 Useful_20	0	1	6.51	2.64	0	5	7	9	10		
11 Orignal_20	0	1	6.17	2.48	0	4.75	6.5	8	10		
12 Innovative_20	0	1	6.23	2.38	0	5	6.5	8	10		
13 Convenient_20	0	1	6.06	2.39	0	4.75	6	8	10		
14 Easy_to_use_20	0	1	6.08	2.38	0	5	7	8	10		
15 Reliable_20	0	1	6.17	2.41	0	5	6	8	10		
16 Cost_effective_20	0	1	5.67	2.33	0	4	6	7	10		
17 Overnightdogboarding	0	1	5.57	2.61	0	4	6	7	10		
18 Doggydaycare	0	1	4.26	1.90	0	3	4	6	9		
19 Inhomedogsitting	0	1	5.27	2.55	0	4	5.5	7	10		
20 Dogwalkingservices	0	1	5.85	2.60	0	4	6	8	10		
21 Petgroomingandspa	0	1	1.48	1.50	0	0.75	1	2	7		
22 Veterinarycarevisitasistance	0	1	7.5	1.41	3	7	7	8	10		
23 Dog_trainingsessions	0	1	5.37	2.84	0	3	6	7	10		
24 Pettransportation_services	0	1	7.03	1.71	1	6	7	8	10		
25 Emergency_pet_care	0	1	7.87	1.40	2	7	8	9	10		
26 Dog_playgroups_and_socialization_events	0	1	8.10	0.973	6	7	8	9	10		
27 essential_features0	0	1	3.62	1.48	1	3	4	5	6		
28 essential_features1	0	1	4.13	1.60	1	3	4	6	6		
29 essential_features2	0	1	3.49	1.60	1	2	4	5	6		
30 essential_features3	0	1	3.33	1.71	1	2	3	5	8		
31 essential_features4	0	1	3.90	1.56	1	3	4	5	9		
32 essential_features5	0	1	3.53	1.47	1	2	4	5	6		
33 NPS_25GROUP	0	1	2.12	0.806	1	1	2	3	3		
34 Interest_yomashi	0	1	7.28	2.50	0	6	8	9	10		
35 NPS_26GROUP	0	1	2.09	0.793	1	1	2	3	3		
36 Reccomend_Yomashi	0	1	7.47	1.95	0	6	8	9	10		
37 log_income	0	1	0.823	0.625	0	0	0.693	1.39	1.79		
38 log_monthly_exp	0	1	1.44	0.608	0	1.39	1.61	1.79	1.95		
39 age_squared	0	1	12.1	8.54	1	4	9	16	25		

Appendix 1 - Overall Dataset Distribution Source: Survey data

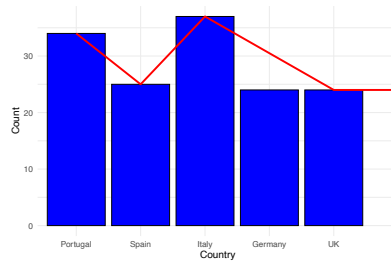
Demographic Profile for Summary Statistics

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Median	Pctl(75)	Max
Age	144	3.21	1.36	1	2	3	4	5
Country	144	3.19	1.81	1	2	3	5	6
Income	144	2.74	1.60	1	1	2	4	6
Monthly_exp	144	4.79	1.82	1	4	5	6	7
Log_Income	144	1.23	0.43	0.69	0.69	1.10	1.61	1.95
Log_Monthly_Exp	144	1.68	0.43	0.69	1.61	1.79	1.95	2.08
Age_Squared	144	12.14	8.54	1	4	9	16	25

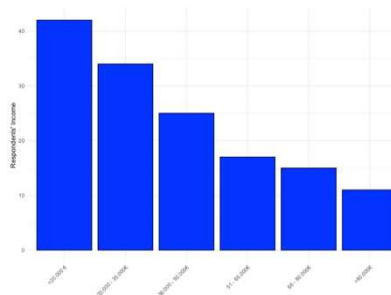
Appendix 2 - Summary Statistics, Demographic Distribution Source: Survey data



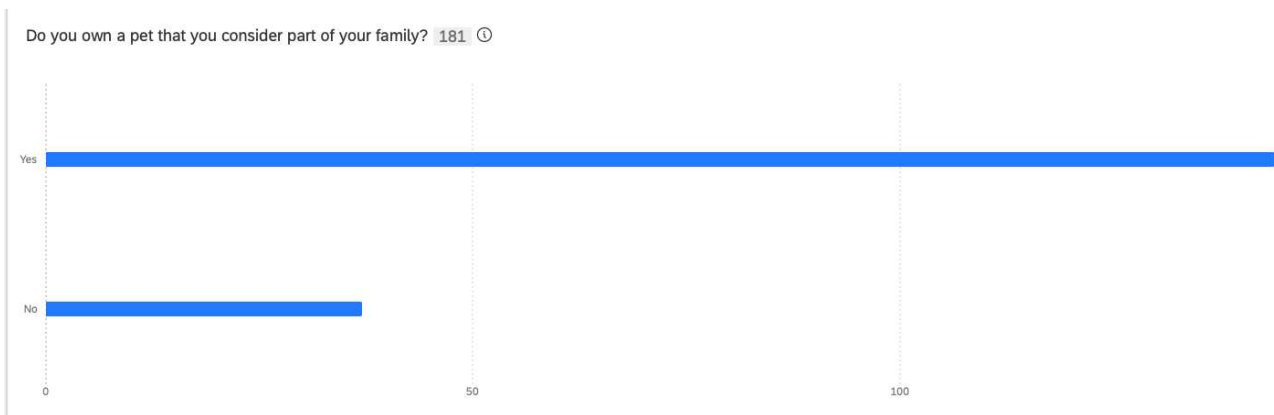
Appendix 3 - Respondents' Ages Distribution Source: Survey data



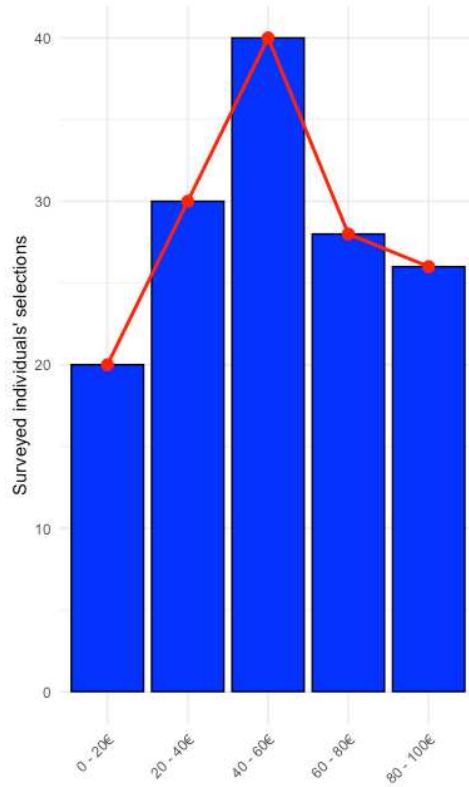
Appendix 4 - Country Distribution Source: Survey data



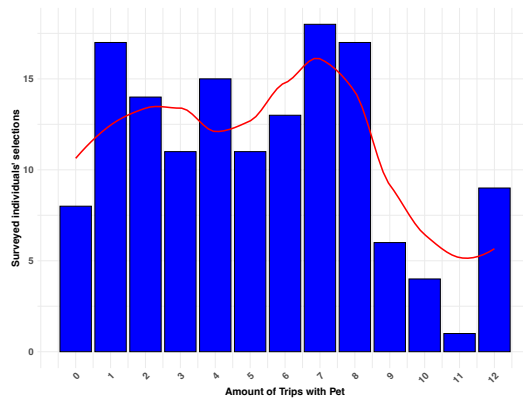
Appendix 5 - Income Distribution Source: Survey data



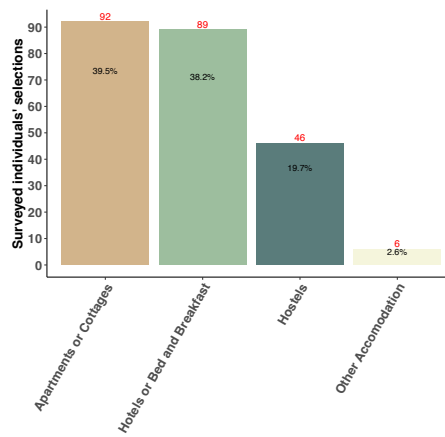
Appendix 6 – Distribution Of The Amount Of Pet Owners Source: Survey data



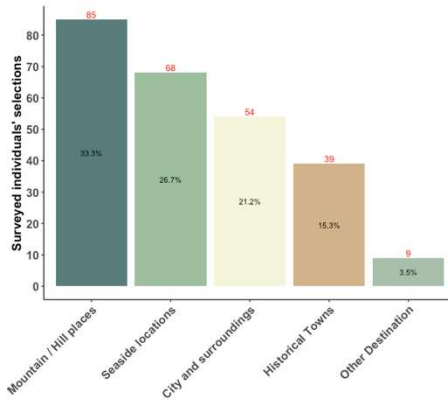
Appendix 7 - Monthly Expenditure Distribution For Each Pet Source: Survey data



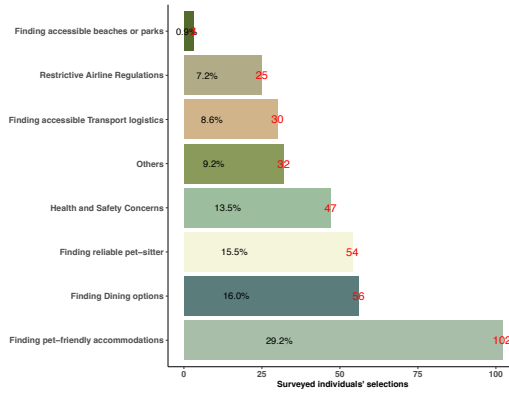
Appendix 8 - Variation In Trips Taken With Pets Source: Survey data



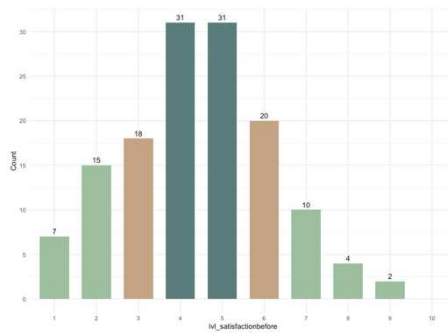
Appendix 9 – Accomodation Preferences Source: Survey data



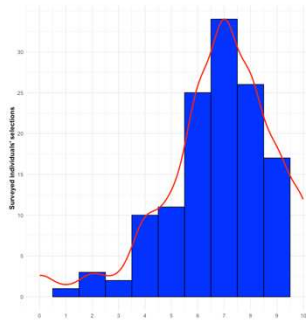
Appendix 10 - Destination Preferences Source: Survey data



Appendix 11- Distribution Of Challenges And Needs Source: Survey data



Appendix 12 – Distribution Of Level Of Satisfaction Before Knowing Yomashi Source: Survey data



Appendix 13 – Distribution Of Interest Level Immediately After Knowing The Startup Source: Survey data

Summary Statistics: Service Perception and Evaluation

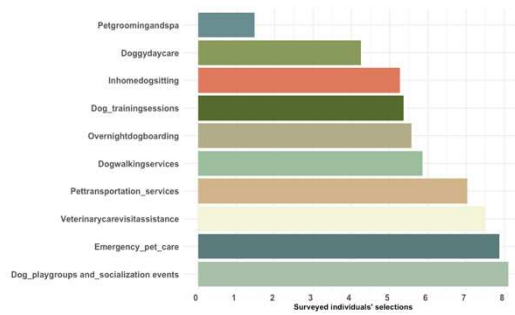
Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Median	Pctl(75)	Max
essential_features0	144	3.62	1.48	1	3	4	5	6
essential_features1	144	4.13	1.60	1	3	4	6	6
essential_features2	144	3.49	1.60	1	2	4	5	6
essential_features3	144	3.33	1.71	1	2	3	5	8
essential_features4	144	3.90	1.56	1	3	4	5	9
essential_features5	144	3.53	1.47	1	2	4	5	6

Appendix 14 – Essential Features Summary Statistics Source: Survey data

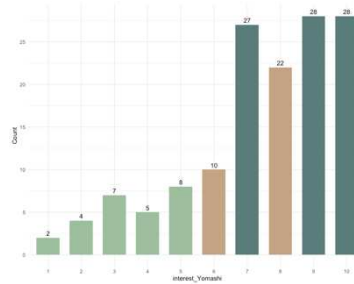
Yomashi Services Summary Statistics

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Median	Pctl(75)	Max
Overnightdogboarding	144	5.57	2.61	0	4	6	7	10
Doggydaycare	144	4.26	1.90	0	3	4	6	9
Inhomedogsitting	144	5.27	2.55	0	4	5.5	7	10
Dogwalkingservices	144	5.85	2.60	0	4	6	8	10
Petgroomingandspa	144	1.48	1.50	0	0.8	1	2	7
Veterinarycarevisitsassistance	144	7.50	1.41	3	7	7	8	10
Dog_trainingsessions	144	5.37	2.84	0	3	6	7	10
Pettransportation_services	144	7.03	1.71	1	6	7	8	10
Emergency_pet_care	144	7.87	1.40	2	7	8	9	10
Dog_playgroups_and_socialization_events	144	8.10	0.97	6	7	8	9	10

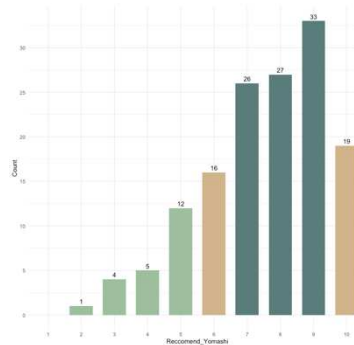
Appendix 15 - Services Offered Summary Statistics Source: Survey data



Appendix 16 - Histogram Of Service Distribution Source: Survey data



Appendix 17 - Levels Of Yomashi Interest Source: Survey data



Appendix 18 – Distribution Of Yomashi Commitment Source: Survey data

term	Age	age_squared	log_income	Income	Travel_w_pet	Monthly_exp	log_monthly_exp	lvl_satisfactionbefore	Reccomend_Yomashi	Interest_yomashi	lvl_interest	
1	Age	1.000										
2	age_squared	.981	1.000									
3	log_income	.558	.513	1.000								
4	Income	.515	.480	.967	1.000							
5	Travel_w_pet	.176	.138	.240	.227	1.000						
6	Monthly_exp	.130	.129	.172	.175	.189	1.000					
7	log_monthly_exp	.080	.080	.166	.171	.171	.964	1.000				
8	lvl_satisfactionbefore	.110	.108	.109	.123	.086	.069	.084	1.000			
9	Reccomend_Yomashi	-.008	.002	.015	.035	.026	.023	.028	-.115	1.000		
10	Interest_yomashi	-.031	-.028	-.015	.008	.018	.059	.067	.123	.343	1.000	
11	lvl_interest	-.253	-.246	-.148	-.115	-.018	-.059	-.040	.173	.226	.226	1.000

Appendix 19 - Correlation Matrix Source: Survey data

## Appendix 20 – Survey Script

### **Section 1 : Demographics**

- Question 1: What is your age? 1(18-24) / 2 (25-35)/ 3 (36-50)/ 4 (51-65)/ 5 (Over 65)
- Question 2: Where do you live? Portugal / Spain / Italy / Germany / United Kingdom
- Question 3: What is your net annual salary? <20.000€ / 20.000€ – 35.000€ / 36.000€ - 50.000€ / 51.000€ - 65.000€ / 66.000€ - 80.000€ / >80.000€
- Question 4: Do you own at least a pet that you consider part of your family? Yes / No
- Question 5: What is your approximate monthly expenditure for each pet? 0 - 20€ / 20 - 40€ / 40 - 60€ / 60 - 80€ / 80 - 100€

### **Section 2: General Travel Habits**

- Question 1: How many times do you travel with your pet in one year? 0 - 12
- Question 2: What kind of accommodation do you typically seek when travelling? Hotels or Bed and Breakfast / Hostels / Apartments or Cottages / Other
- Question 3: When you travel with your pet, what are your preferred destinations? Seaside locations / Mountain / Hill places / City and surroundings / Historical Towns / Other

### **Section 3: Current Pet Travel Experience and Needs**

- Question 1: What challenges or needs have you faced when traveling with your pet? Finding pet-friendly accommodations / Finding Dining options / Finding reliable pet-sitter / Finding accessible Transport logistics / Health and Safety Concerns / Restrictive Airline Regulations / Finding accessible beaches or parks / Other
- Question 2: How satisfied are you with the current range of services available for traveling with your pets? 0 – 10

### **Section 4: Demand for a Pet-Inclusive Travel Platform**

"How would you feel about a service that transforms your pet's travel experience into a carefree adventure?"  
We're thrilled to introduce Yomashi, a free platform dedicated to making pet travel effortless and enjoyable. With our commitment to providing seamless solutions and top-notch care in partnership with select hotels and platforms, understanding your needs is crucial for us. Our mission is to offer you and your pets an unparalleled service experience, where convenience meets quality. Get ready to embark on stress-free journeys with your beloved companions. All our service providers are carefully selected and certified to ensure the highest standards of care. Our core services focus on:

- *Pet Walking: Engaging walks for pets, ensuring they get ample exercise and enjoyment.*
- *Day Care: Provides a secure place for pets to stay, play, and interact while their owners are busy.*
- *Pet Sitting: In-home care for pets, where a sitter ensures they're fed, cared for, and given attention during an owner's absence.*
- *Pet Boarding: Overnight accommodation for pets, offering a warm and inviting space for them when their owners are away for longer periods.*

- *Question 1: From 1 to 10 how much do you think this service is .. ? Useful / Original / Innovative / Convenient / Easy to use / Cost – effective*
- *Question 2: For each service offered by yomashi indicate how much you are interested from 0 to 10. Overnight dog boarding / Doggy daycare / In-home dog sitting / Dog walking services / Pet grooming and spa / Veterinary care visit assistance / Dog training sessions / Pet transportation services / Emergency pet care / Dog playgroups and socialization events*

***Section 5: Feedback on Yomashi's Concept***

- *Question 1: To what extent are you interested in using Yomashi platform for your next trip with your pet? 0 – 10*
- *Question 2: How likely are you to recommend Yomashi to a friend or colleague? 0 – 10*