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RESEARCH ARTICLE

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## THE STUDY OF INDIAN PET SERVICES: AN INSIGHT INTO THE ATTITUDES AND PREFERENCES OF OWNERS

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### ABSTRACT

This research paper explores the current state of pet services in India. Using a mixed-methods approach, we conducted a survey of pet owners comprehensive understanding of the attitudes and preferences of Owners. Our findings reveal that the Indian pet services industry is growing rapidly, driven by rising pet ownership rates and an increasing demand for high-quality care. However, there are several challenges facing the industry, including a lack of standardized regulations, a shortage of skilled professionals, and limited access to technology and resources. Pet owners in India prioritize safety, personalized care, and convenience when selecting pet services, with a strong preference for services that offer in-home or on-site care. They also place a high value on clear communication and transparency from service providers. Pet service providers in India face several challenges in delivering high-quality care, including a lack of standardized training and certification programs, limited access to technology and resources, and a shortage of skilled professionals. Despite these challenges, there is a growing interest among service providers in improving their offerings and adopting best practices from other countries. Overall, this study provides valuable insights into the current state of pet services in India and highlights the challenges and opportunities facing the industry. By understanding the attitudes and preferences of pet owners and the challenges facing service providers, stakeholders can work towards improving the quality of pet services in India and ensuring that pets receive the care they deserve.

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## INTRODUCTION

Pets are domesticated animals that are kept in a person's house. Whenever someone mentions pets the first thing that comes to our minds is a dog or a cat because they are the most commonly kept pets in the house. Pets are companions that are always accompanying the human counterpart. They become family to everyone involved. The thoughts of pets just fill our hearts with warmth as they are normally referenced to beautiful and soulful animals who are always loyal and friendly to everyone. But with pets also comes responsibility because you are not only having a companion but also an animal that requires constant care and attention. The pet services sector in India is growing rapidly in the present years due to the increasing number of pet owners and their willingness to spend on their pets' well-being. The sector includes a wide range of services, such as pet grooming, pet boarding and daycare, pet training, pet transportation, pet food and accessories, and veterinary care. According to a report by ResearchAndMarkets, the Indian pet care market was valued at INR 115.2 billion (approximately USD 1.6 billion) in 2020 and is expected

to grow at a CAGR of 12.3% from 2021 to 2026. The report also suggests that the growth in pet ownership, increasing disposable income, and the trend of nuclear families are the major drivers of the sector's growth. Furthermore, the COVID-19 pandemic has also led to an increase in pet adoptions, as people sought companionship during the lockdown. This has further boosted the demand for pet services in the country. Overall, the Indian pet services sector has a promising future, with significant growth potential. As the pet ownership trend continues to rise in the country, there will be ample opportunities for new entrants and existing players to capitalize on this growth.

### What is a pet service app?

A mobile app for pets is a software that enables pet owners to discover and communicate with skilled pet service providers, like dog walkers, pet sitters, groomers, and trainers. These applications usually offer a way for pet owners to locate and reserve pet services, while also providing a means for pet service providers to advertise their services, handle bookings, and interact with their clients. Some pet service apps also offer features such as real-time GPS tracking, payment processing, and customer reviews. These apps can help pet

owners find reliable and trustworthy pet service providers and make the process of booking pet services more convenient and efficient. They can also help pet service providers to grow their businesses and reach a wider audience.

### Why do we need pet servicing apps?

At the period of our parents and grandparents, only males worked outdoors, while women stayed at home to care for the family and home. This would leave the dogs in continual care, but in the current age, both men and women are employed, leaving the pets without care. And owing to pets receiving less care and attention would result in poor health condition of the pets. The object of convenience also comes into the picture as people prioritize comfort. Having a pet servicing app makes the care of pets extremely convenient and accessible.

Pet servicing apps are important because they provide a convenient and efficient way for pet owners to access professional pet services. Here are some reasons why we need pet servicing apps:

- **Convenience:** Pet servicing apps allow pet owners to easily find and book professional pet services from the comfort of their own homes. They can search for services based on their location, availability, and specific needs.
- **Quality assurance:** Pet servicing apps typically require pet service providers to undergo a screening process before being listed on the app. This can include background checks and verification of credentials, which helps to ensure that pet owners are working with qualified and trustworthy professionals.
- **Increased access:** Pet servicing apps can provide access to a wider range of pet services and professionals than traditional methods, such as word-of-mouth referrals or searching through classified ads.
- **Safety:** Pet servicing apps often have safety features built-in, such as real-time GPS tracking of pet service providers and secure payment processing. This can help to ensure the safety of both pets and pet owners.
- **Time-saving:** By using a pet servicing app, pet owners can save time and avoid the hassle of searching for pet services on their own. They can quickly and easily find and book services that meet their specific needs.

Overall, pet servicing apps provide a valuable service to pet owners by making it easier and more convenient to access professional pet services, while also providing a level of quality assurance and safety that may not be available through other methods.

**Pet servicing market in India:** The growing trend of urbanization, smaller family units, more dual-income households, evolving lifestyles, and the growing humanization of pets have all contributed significantly to the worldwide surge in pet ownership in recent years. India is acknowledged as a noteworthy participant in this trend, with a pet population that could potentially reach 32 million and is growing by more than 12 percent annually. As a result, the pet care industry is experiencing a boost, encompassing pet food, retail chains, and services, as well as pet care services. Furthermore, e-commerce has emerged as a delivery option for pet products.

**India Market Growth Factors for Pet Care:** The shift in people's mindset towards treating pets like humans, couples in cities and newlyweds postponing parenthood, the growth of nuclear families and double-income households, and lifestyle changes have all made pets an integral part of families. As a result, there is a greater demand for pet care products in India. Since the pet care industry in the western world has become saturated, global pet care companies are now targeting the Indian market, which is expanding the market's potential and commercial opportunities significantly. The pet care industry in India has witnessed a substantial expansion owing to the growing number of pet owners. Dogs are the most popular pets, holding more than 50% of the market share, while the rabbit segment

is predicted to grow at a compound annual rate of over 26%. Consumers consistently demand brand-name grooming equipment and accessories, as well as various food and nutrition items to ensure the health and development of their animals. The sales of dog food have shown promising growth, with a compound annual rate of over 21%. This has led to significant market growth that is expected to continue in the future. Moreover, domestic pet care companies are presenting tough competition to their international counterparts by utilizing various distribution channels. Therefore, the India pet care market is projected to grow significantly in the coming years.

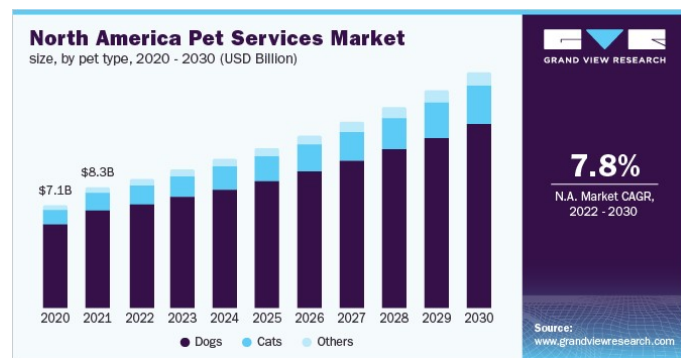
**India Pet Care Market Country Analysis:** Although the Indian pet care market's value is \$434 million, it is one of the fastest-growing sectors globally, with a projected compound annual growth rate (CAGR) of 15% between 2021-2026. While the pet care markets in the United States, Canada, and Europe have become saturated, major multinational companies are now targeting Asia, with India being a key market. In India, the pet care industry remains mostly unorganized, but consumers are gradually recognizing the importance of providing distinct food for dogs to improve their nutrition, health, and growth. Royal Canin, Mars International, and Indian Broiler Group are the primary players that are driving the expansion of the Indian pet industry.

**India Market Share and Competition in Pet Care:** Large corporations dominate the pet food market in India, with Mars International being the industry leader. Whiskas and Royal Canin are popular among existing and new consumers who are switching from homemade pet food to packaged pet food. The demand for Pedigree and Royal Canin remains steady due to their large customer base and extensive distribution network. These corporations are investing in new products and product improvements, expansions, and acquisitions for their corporate development. Another significant area of expenditure is research and development (R&D) to develop new products at lower prices.



**Pet servicing in USA:** In 2021, the worldwide market for pet services had a value of USD 23.1 billion. According to estimates, it will increase at a rate of 9.1% per year on average from 2022 to 2030. The expansion of the companion animal population, the humanization of pets, the strategies adopted by leading companies, and the increasing pet expenditures are the primary drivers of this market. The COVID-19 pandemic caused a market drop, particularly in 2020. Its negative effect is mostly attributable to the closure and restriction of pet services as a result of social distance standards and lockdowns. During the height of the outbreak, 85 percent of Pet Sitters International members saw a decline in business of over 50 percent. Pets at Home, Inc., a firm headquartered in the United Kingdom, has temporarily halted its grooming facilities and forecasts a 29% fall in grooming income in 2020. In a separate poll conducted by the Japanese pet insurance business Anicom, it was discovered that both dogs and cats were spending far less on pet hotels and pet sitters. Wag Laboratories, Inc., situated in the United States, also reported a 63% fall in 2020 gross bookings. Nonetheless, demand improved in 2021 as economic operations gradually restarted. During the second and third lockdowns Pets at Home, Inc. was permitted to offer welfare

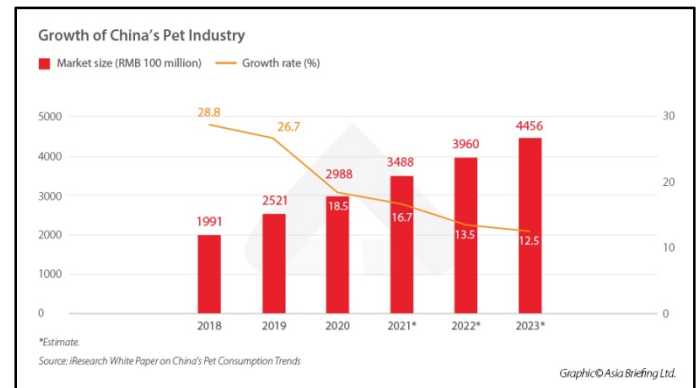
grooming services in its grooming rooms. They reduced the price of their welfare grooming services by an average of £7 (approximately \$9 USD), depending on the size and breed of the dog. In 2021, Rover, a well-known pet services platform, reported a 75% surge in bookings. Around eighty percent of the company's 4.2 million reservations were repeat appointments. Notwithstanding the effects of COVID-19 variations, the firm claimed an ongoing recovery in reservations prior to the resumption to travel. The corporation plans to increase its regional footprint in Europe, as well as its foothold in Australia, New Zealand, and portions of Asia. Several factors are driving the market, including the adoption of premium and subscription services, the integration of data science into marketplace dynamics, enhanced operational efficiency, the return to pre-pandemic levels of activity, and the expansion of pet varieties and services offered. For example, premium services facilitate the cross-selling of other service categories, hence boosting revenue expansion. Also, premium customers prefer to choose long-term plans that might boost customer loyalty and service utilisation. For example, 25% of premium customers to Wag Labs choose yearly subscriptions. The increasing use of online platforms for marketing and service delivery is predicted to drive market expansion. For example, PetSmart LLC provides virtual dog training services.



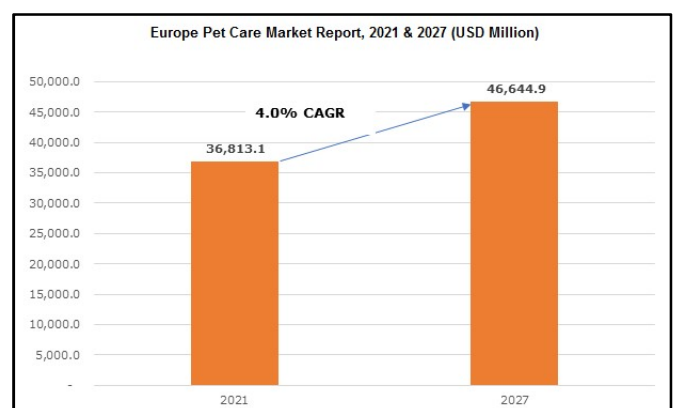
**Pet servicing in China:** Like to many other Asian nations, China's pet sector has flourished in recent years, spurred by rising prosperity and a dropping birthrate. Millennials and Generation Z, who were largely born during the One-Child Policy, are the driving forces behind China's burgeoning pet sector. Younger Chinese are less likely than earlier generations to become parents. They prefer to fulfil their emotional requirements by caring for one or more "fur babies" In 2021, China's pet market was valued at almost 250 billion yuan (approximately 36.8 billion U.S. dollars), attracting various local and international businesses.

**An increase in China's pet population:** China's urban pet population has increased by nearly 50 percent during the previous five years. Despite a decline in the ownership of traditional pets such as goldfish and birds, the popularity of fuzzy creatures remained strong. In 2021, nearly 58 million cats outnumbered dogs in China's urban homes, surpassing their number for the first time. The decline of the dog craze was mostly driven by canine control measures imposed in several Chinese towns, such as the prohibition of large-breed dogs and restrictions on daylight dog walking. According to a popularity poll, ginger-colored domestic cats were the most popular cat breed in China, while the Siberian Husky was the most popular dog breed. The growing pet industry China's market for pet food and supplies has experienced phenomenal expansion. Modern animal lovers no longer view their furry companions as merely animals. Instead, over 90% of pet owners view their dogs as members of the family, friends, or even children. A third of pet owners reported spending more than 10 percent of their monthly income on their furry companions. China's pet-related consumerism has been sparked by shifting attitudes and a growing willingness to spend among urban families. The majority of Chinese buyers prioritise flavour and brand reputation when selecting pet food. Western companies such as Mars dominated the Chinese market for pet food. Modern pet owners give not just high-quality meals, but also veterinary care, beauty salon services, and even entertainment for their dogs. In 2021, cat and dog owners spent an

average of 1,423 and 918 yuan on veterinary care, over a quarter of the entire amount spent on pets. In addition, pet owners in China spent a substantial amount of money on clever pet gear such as smart water fountains, feeds, and litter boxes.



**Pet servicing in Europe:** In 2020, the European market for taking care of pets was valued at around \$35.7 billion. It is anticipated to show a compound annual growth rate (CAGR) of 4.0% from 2021 to 2027. Pet care is a dedication to the health and wellness of an animal that depends on its owner. The pet care sector is increasing fast as a result of rising pet-love, which has led to a rise in pet adoption. The market for pet care products and services is experiencing a surge in demand due to rising animal healthcare expenses, the growing popularity of mobile pet grooming services, and an increase in the incidence of zoonotic and foodborne illnesses. Additionally, the heightened awareness of pet owners regarding the importance of maintaining their pets' health and wellness has contributed to the market's growth. The market for products and services related to pet care is witnessing an increase in demand because of factors such as rising healthcare expenses for pets, a rise in popularity of mobile grooming services for pets, and an increase in the number of zoonotic and foodborne illnesses. Additionally, the market is expanding due to pet owners' increased awareness about the significance of maintaining their pets' well-being and health. In addition, members of the Pet Food Manufacturers Association (PFMA) manufacture goods with the FEDIAF (European Pet Food Federation) according to the Protein Nutritional Guidelines for Cats and Dogs. As a result, the availability of pet foods with added protein is developing dramatically, adding to the region's increased demand for pet food products. Hence, the aforementioned reasons will greatly boost the growth of the Europe pet care market in the future years. In 2020, the pet care market in Germany maintained a market share of over 13%, owing to Germany is the largest economy in the European Union, and a significant portion of its population is willing to spend a significant amount of money on pet products and services. As evidence, Germany accounts for roughly 10% of the pet product market. Additionally, the increased incidence of zoonotic illnesses has contributed to the rising demand for pet care services. The nation is committed to innovation, increasing the health and well-being of pets while enhancing customer convenience, consequently contributing to the expansion of the industry. Thus, it is projected that these factors would favourably influence market growth in the future years.



Research, G. (n.d.). *Europe Pet Care Market Size, Growth Trends | 2027. Graphical Research*

## Objectives the Study

### The objectives of studying pet services study are:

1. Understanding the needs and preferences of pet owners: By studying pet services, researchers can gain insights into the needs and preferences of pet owners, such as the types of services they are interested in, the factors that influence their decision-making, and the level of satisfaction they have with existing services.
2. Identifying market opportunities: Studying pet services can help identify gaps in the market and potential opportunities for new or improved services, as well as the potential demand for these services.
3. Improving the quality of pet services: Research can help identify areas where pet services can be improved, such as through better customer service, more effective marketing, or more innovative service offerings.
4. The objectives of studying pet services can vary depending on the specific context and research questions being addressed. However, some common objectives of studying pet services may include:
5. Understanding the needs and preferences of pet owners: By studying pet services, researchers can gain insights into the needs and preferences of pet owners, such as the types of services they are interested in, the factors that influence their decision-making, and the level of satisfaction they have with existing services.
6. Identifying market opportunities: Studying pet services can help identify gaps in the market and potential opportunities for new or improved services, as well as the potential demand for these services.
7. Improving the quality of pet services: Research can help identify areas where pet services can be improved, such as through better customer service, more effective marketing, or more innovative service offerings.

## LITERATURE REVIEW

1. When it comes to treating behavioural problems in dogs, evaluating the owner's attitude is an important part of the diagnostic process. Studies that involve questionnaires given to groups of owners have shown that the degree and type of attachment to their dogs can vary widely. Techniques like the Kelly Repertory Grid highlight the complexity of these attachments. It is suggested that the psychoanalytic concept of projection provides the best explanation for the illogical aspects of these attachments, and there is experimental and clinical evidence to support this. Research has shown a correlation between dominance aggression in dogs and owners who engage in anthropomorphic thinking, as well as a link between over-excitement and displacement behaviours in dogs and anxiety in their owners. Anxiety in owners does not necessarily lead to a higher prevalence of phobias in their dogs, but a dog's fear can have a greater impact on an anxious owner.
2. This study investigates how different training methods used by dog owners affect the behaviour of their pets. The owners' training methods were divided into using rewards only, a combination of rewards and punishments, or mainly punishment-based tactics. The study surveyed 53 owners about their preferred training methods for seven common tasks and filmed them interacting with their dogs in standardized scenarios at home. Dogs whose owners reported using more punishment were less likely to interact with strangers, and those whose owners preferred physical punishment were less playful. Conversely, dogs whose owners reported using more incentives tended to perform better on a novel training exercise, and dogs whose owners were perceived to be more fun and patient in their training approach had a higher ability to perform this task. The results indicate a clear link between the training history and current behaviour of a dog as reported by its owner. The use of high amounts of punishment may have negative effects on a dog's behaviour, while training focused on rewards may improve the dog's capacity to learn.
3. Dogs use intricate body language and facial expressions to communicate, which can sometimes conflict with the human-dog communication that relies mostly on verbal and physical cues. Interactions between humans and dogs may result in misunderstandings because humans perform gestures that pets interpret as inappropriate social behaviours. This study focuses on the behavioural responses of dogs to tactile human-dog interactions and mild forms of restraint. N = 24 privately-owned dogs participated in this study. Each dog was exposed to nine interactions with both familiar and new individuals. The test sequences included diverse activities, such as grasping the dog's paw and petting the dog's head for 30 seconds each. The interval between tests was fixed at 60 seconds. We investigated the frequency and length of the dogs' behavioural reactions. After log transforming the data on behavioural reactions, an ANOVA was performed. When beginning redirected behaviours, human-dog familiarity had a significant impact on behavioural responses ( $F_{1,184} = 4.94, p = 0.027$ ). Similarly, there was a statistically significant difference in frequency ( $F_{1,193} = 10.67; p = 0.001$ ) and length ( $F_{1,184} = 21.85; p = 0.000$ ) between the behavioural reactions that were termed appeasing gestures. Familiarity with the human handler appears to have an influence on the appeasing gestures and redirected behaviours of dogs during tactile human-dog encounters. Further research is required to analyse the owners' knowledge of these behavioural patterns and to establish whether the dog reactions seen in this study are indicative of the human-dog connection.(4)
4. Since their domestication 100,000 years ago, dogs have played a significant part in human culture. Yet, the literature on human-dog relations has paid little attention to humans' abilities to comprehend dog body language and facial emotions. The present study provides a preliminary examination of this topic through a survey of individuals with varied degrees of direct experience with dogs and their accounts of dog behaviour. Sixty observers, including dog-owners, veterinarians, dog trainers, and non-owners, were asked to classify the conduct of nine dogs depicted in various video segments using terms such as friendly and aggressive. The observers also specified the behavioural elements that triggered their behaviour descriptions. Working and living with dogs without theoretical knowledge of canine behaviour may not be enough to appropriately describe the majority of dog behaviours, according to the research. The ability of the four categories of observers to accurately categorise dog behaviour was not significantly different ( $p > 0.050$ ), however there were variances among individual observers independent of their level of knowledge with dogs ( $p < 0.001$ ). The most easily identifiable behaviours were apathy, fear, friendliness, and play solicitation, although observers varied on the definitions of aggression, confidence, and real play. The results show that tail motions were the most often utilised clues to interpret canine behaviour, and that observers preferred to offer 'holistic' descriptions of dog behaviour, such as 'the dog wants to...' or 'the dog feels...', even when not encouraged to do so. (5)
5. Lack of physical activity leads to non - communicable disease diseases such as diabetes, stroke, and osteoarthritis. Thus, it is crucial to encourage physical exercise. Regular walking is among the most basic forms of physical activity. Regular walking has been demonstrated to lower the risk of several diseases and impairments, improve the immune system, mental state, and quality of life. Dog walking is one of the possible approaches to encouraging individuals to walk. Due to the fact that dogs must be walked daily at the same time, dog walking is an excellent and effective form of physical activity. Yet, owning a dog imposes constraints on the owner's lifestyle and needs the owner to take care of and be responsible for the animal. These limitations can be circumvented using mobile applications that simulate a dog's urge

- for a walk and encourage the person to go for a stroll. Additionally, this type of application can be extremely useful for other use cases. For example, when a child begs his or her parents for a dog and the parents want to ensure that the child will take care of and be responsible for the animal.
6. Identifying variables related with owners not walking their dog is the objective of this study. Method. In 2005–06, 629 dog owners from Perth, Western Australia, who participated in the RESIDE project completed a self-administered questionnaire that included questions regarding the dog, the dog-owner relationship, dog walking, and intrapersonal and environmental aspects involved with dog walking. Using NPAQ, physical activity data were also obtained. Results. Almost one-fourth (23%) of dog owners did not take their pet for a walk. 72% of dog walkers attained 150 minutes of physical activity per week, compared to 44% of dog owners who did not walk their dog ( $p < 0.001$ ). Independent of other well-known indicators of physical activity, owners who did not feel that their dog offered motivation (OR 9.60, 95% CI: 4.37, 21.08) or social support (OR 10.84, 95% CI: 5.37, 22.08) were substantially more likely to not walk with their dog. Conclusion. If owners who do not walk with their dog were convinced to begin doing so, it would have a major influence on the community's physical activity levels. Knowing the variables that discourage or encourage owners to walk with their dog can aid in the development of interventions to promote the initiation and maintenance of regular dog walking. Copyright 2007 Elsevier Inc. Only reserved
  7. Frequent physical exercise is connected with several health advantages, including the prevention or amelioration of many chronic illnesses and ailments. According to intervention studies, boosting dog walking among dog owners who do not regularly walk their dogs may be an effective technique for increasing and sustaining regular physical activity. Techniques that stress the usefulness of dog walking for both dogs and humans, support the context-dependent repetition of dog walking, boost the social-interaction advantages, encourage family dog walking, and assure the availability of public space for dog walking may increase dog walking. Furthermore supported by research is the organisation of buddy systems with "loaner" dogs to promote informal strolling by dog owners and non-dog owners. Given the amount of dog-owning households, methods that encourage dog walking might be beneficial at boosting the physical activity levels of a substantial section of the population. The only way to maximise the potential for dog walking to favourably affect the health of individuals (and dogs) is to create programmes with wide population-level reach. At the neighbourhood and population levels, policies that support dog walking, such as "dogs permitted" areas, off-leash zones, and dog-friendly built environments and parks, may lead to increased physical activity through dog walking.
  8. We present an early design concept that focuses on how humans and their animal friends interact with current urban landscapes. The initiative acknowledges that both dogs and dog walking contribute to mental and physical health and well-being, and it builds on the emerging understanding that companion animals and walking in urban areas can promote community cohesiveness and social capital. We brought these concepts together in the context of planning for Queensland's expanding senior population in order to obtain insight into the human and animal companions' placemaking-related interactions. Currently, the project is in the exploratory design phase as "grounded" practice-based work with ongoing emergent insights to support the creation of a design scenario and culture inquiry. We begin with ideas derived from personal experiences and a desire to promote intergenerational, "slow" urban landscapes that are age-friendly. This article provides history and context before analysing some design issues. We present an early design proposal that relies on game design and place-making theories and has the potential to expose experience in place (for both humans and our animal companions).
  9. The purpose of this study was to investigate how healthy persons perceive their health and well-being in relation to dog walking. Ten self-reported healthy adult dog-walkers participated in a dog-walk-along interview, and nine of the ten also attended a participatory analysis session as a follow-up. All interviews were conducted within the metropolitan region of Dunedin, New Zealand/Aotearoa. Participant-led dog-walking interviews were audio and video recorded and transcribed. During the subsequent session of participative assessment, participant input on the inductive development of themes was requested. Participants developed a "Emotional Connection" with their dog(s), dog-walking led to "Healthy Connections" (social and environmental interactions), and individuals valued dog-walking for its aggregate advantages for Psychological Wellbeing. By conducting interviews during dog walks, we have discovered unique findings regarding how the emotional connection between humans and dogs boosts the desire to exercise (by walking the dog) and at the same time, elevates the psychological state of humans by providing something enjoyable to the dog. Using a combination of dog-walk-along interviews and participatory analytic sessions, we were able to uncover negative impacts on human psychological well-being, such as concern about both canine behaviours and social interactions with other humans. The observed positive and negative elements of dog-walking can be utilised by health promotion advocates to enhance dog-walking-related recommendations, programmes, and initiatives.
  10. Significant changes have occurred in societal consumption models, which are increasingly geared towards meeting stricter ecological criteria and satisfying the need for higher living standards. In this regard, companion animals are a regular sight in large metropolitan families. The number of companion animals in Bucharest is rising (38.7 animals per 100 households). This trend has significantly altered urban parks. 5240 questionnaires were sent to visitors of 28 parks in Bucharest in order to determine how urban parks needed to be adapted to this trend. 7.5% of the total respondents walked their dogs in the parks. Compositional analysis was utilised to assess the differences between the profiles of dog walkers and other visitors. Considering motive, length, and frequency of visit, two clearly distinct groups of visitors were discovered. In the majority of Bucharest's urban parks (87.5%), there are dog-specific spaces, although 37.5% of dog walkers deemed these facilities unusable. Due to the significant number of stray dogs, 15.9% of visitors viewed dogs as the primary concern within parks. Visitors have been dissatisfied as a result of the decline in environmental quality in urban parks. In this context, park expenditures must complement the need to safeguard urban park amenities and be geared towards enhancing visitor happiness
  11. DogGo is a firm whose mobile application seeks to provide dog owners with safe and professional dog walking and grooming services. Due to the DogGo application, dog owners and corporate employees who wish to walk their dogs (referred to as Walkers) may meet on the same mobile application interface platform. The organisation identified the issue as the necessity to precisely forecast the performance of the dog walkers in the forthcoming dog walker matches, hence assuring the correct dog walker match. This study will be designed to assist this firm in accurately calculating the performance of their present walkers. The applicable machine-learning model will initially be based on the company's human grading method for the performance of existing personnel, and will then be developed in light of the resulting gains. For the first time, the performance of the model is dependent on the personnel and their qualities.
  12. The study aimed to determine the differences in perceptions of the neighborhood built environment between non-dog-owners, dog-walkers, and non-dog-walkers, and to investigate the relationship between these perceptions and the frequency of dog-walking. The method involved conducting telephone interviews and follow-up questionnaires with a random sample of individuals in Calgary between August-October 2007 and January-April 2008, gathering information on physical activity, health, sociodemographic variables, dog ownership, and perceived qualities of the built environment. The study used ANOVA to compare the perceived built environment among non-dog owners, non-dog walkers, and dog walkers. Logistic regression analysis was used to assess the

- relationship between dog-walking activity and perceived built environment for dog-owning individuals, and to determine the relationship between dog walking four times a week and perceived built environment among dog walkers. Finally, linear regression analysis was used to determine the relationship between the frequency of dog-walking and the perception of the built environment among those who walked their dogs. The study found that non-dog owners had more favorable impressions of neighborhood roadway connection, pedestrian infrastructure, and walkability compared to dog walkers ( $p < 0.05$ ). Among dog walkers, aesthetics were significantly linked to covariate-adjusted odds ratio (OR) of 1.67 and dog-walking frequency of 0.15 ( $p < 0.05$ ). Additionally, walkability was positively associated ( $p < 0.05$ ) with dog-walking four times a week (adjusted OR=1.03) and dog-walking frequency (adjusted = 0.05) among dog-walkers. The perceptions of the built environment in the neighbourhood appear to differ between dog owners and non-dog owners. While modifications to the built environment may not motivate dog owners to begin walking their dogs, establishing beautiful and walkable neighbourhoods may encourage dog owners to exercise their pets regularly.
13. More emphasis is being paid to the interaction between humans and physical devices and technologies in the real world, which necessitates a natural and intuitive approach. The desire for this concept and quality of life has been on the rise. Hence, how to rear pets in a simple manner has been the primary concern in recent times. This study investigates the capacity of computing, communication, and control technologies to enhance human-animal interaction via the Internet of Things. This work focuses on the enhancement of location-awareness through a pet application and the facilitation of activity and feeding management training for pet owners. Comprehensive experiment findings reveal that our proposed technique aids renal illness greatly and reduces its symptoms. Our research not only demonstrates the Internet of Things-based enhancements to the pet monitoring system, but also satisfies the needs of pet owners who are away from home for work.
  14. Our data demonstrate which messaging appealed to pet owners the most. According to prior research, the most enticing statements for the whole panel focused on the breadth of services (emergency services), the quality of treatment (board-certified experts, a veterinarian who knows my pet from past visits), and the customization of care (a vet that treats my pet as family). By analysing the response of pet owners to enticing messaging, however, three distinct thinking categories were revealed. Segment 1 reacts highly to aspects that provide warmth and reassurance, according to an analysis of the top performing messages for each segment (i.e., supportive staff, same vet every time we visit, web site offering information, answering the phone efficiently and productively and a private spacious waiting area). The second segment reacted well to technology (i.e., on site laboratory for immediate results, most advanced diagnostic capabilities, emergency services, remote consulting and higher quality imaging). Segment 3 reacted favourably to therapy of a general type comparable to that given to humans (i.e., convenient evening and weekend hours, comprehensive care, to be seen on the scheduled time). In terms of geo-demographics and attitudes towards their pets, these divisions look comparable; yet, when we investigated their replies to more granular, relevant words that identify veterinarian services, we discovered disparities among pet owners. Depending on the whole panel's messaging, veterinary services may emphasise areas of fundamental interest to attract clients. Basic messages would include emergency services, seeing the same veterinarian, treating the pet as a member of the family, and board certification for experts. Utilizing four factors from mindset segmentation, we determined the four most discriminating questions that effectively group consumers and potential customers into demographic categories (66% right classification). Veterinarians can use the results of this study to categorise clients in the population; otherwise, it is difficult to forecast the respondent's mindset group. The segmentation of mindsets enables veterinarians to assess their services, generate extra value for each client category, and cultivate customer loyalty.
  15. To improve the health and well-being of companion animals in economically disadvantaged U.S. communities, it is important to understand the social, economic, and structural barriers to accessing pet care services. Between May 2018 and December 2019, the researchers used six items from the One Health Community Assessment to assess access to pet care in two urban and two rural zip areas. One urban and one rural community received assistance from the Pets for Life outreach program, while the third community served as a comparison. Propensity score matching was performed to reduce demographic bias in the sample, and Generalized Estimating Equations were used to compare the six measures of access to pet care across the intervention and comparison areas (Urban = 512 participants, Rural = 234). The urban community with Pets for Life had a higher overall measure of access to pet care than the urban area without Pets for Life. Moreover, the Pets for Life intervention in urban communities was associated with increased access to cost-effective pet care alternatives and improved access to service providers who offer payment plans across all six indicators of healthcare accessibility. The study also showed statistically significant positive changes in opinions of two of the six indicators of access to pet care when comparing pre-intervention and post-intervention survey responses from a subgroup of Pets for Life clients. Overall, this study suggests that community-based animal welfare programs can enhance perceptions of pet support services.
  16. The phrase "Humanity is the source of technology" represents modern existence and highlights the growing importance of the interaction between technology, physical objects, and humans in the real world. It suggests that a natural and intuitive approach should be taken. As people have become more concerned with healthy living, the simple rearing of pets has become a significant issue. To address this, the authors of this study used the technology of the internet of things (IoT) to design a system that monitors a pet's activities and regulates its mealtimes. This system can be considered a form of pet digital home technology, and its implementation has been shown to meet the needs of pet owners.

## RESEARCH METHODOLOGY

The term "research methodology" pertains to a structured and methodical approach or framework employed to gather, analyze, and interpret data to address research questions or test hypotheses. It involves a set of techniques and procedures that are applied to gather information, identify patterns, and draw conclusions based on empirical evidence. A good research methodology is essential for producing reliable and valid results, and typically involves a combination of qualitative and quantitative research methods, depending on the nature of the research question. In addition to data collection and analysis, research methodology also encompasses the selection of appropriate research design, data collection techniques, data analysis methods, and the interpretation and reporting of findings. In a research paper, the methodology section plays a crucial role in enabling the reader to critically evaluate the study's overall validity and reliability.

## RESEARCH OBJECTIVES

Research objectives are specific goals or aims that a researcher wants to achieve through a research study. These objectives guide the research process and help the researcher to stay focused and on track towards achieving their research goals. Research objectives are typically derived from the research problem or questions that the researcher seeks to answer. They are often formulated in a clear, concise, and measurable way, which allows the researcher to determine the success of the research study. The research objectives may focus on exploring a particular phenomenon, understanding a specific aspect of a problem, testing a hypothesis, or developing new

theories. Overall, research objectives are an essential component of any research study, as they help to provide direction and focus to the research process. They help summarize and narrow the project and provide direction to the study.

Our research objectives for this paper include:

- Finding out the scope of pet services in India.
- Finding out the involvement of pet owners in the well-being of their pets.
- Understanding the pet services industry and market to help in future growth of the industry.

**Survey Instrument:** For our data collection, we have chosen to utilize a questionnaire as our survey instrument. A questionnaire is a research tool designed to obtain information from a sample of individuals or groups by posing a predetermined set of questions. It is a widely used approach for data collection in both quantitative and qualitative research, and can be administered using various methods, such as online, by mail, by phone, or in person.

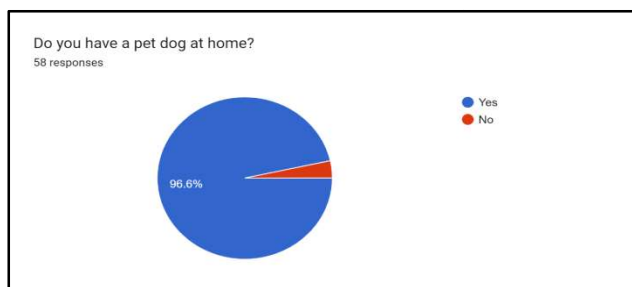
**Sampling Plan:** Our sample size is 60 participants and we have 58 respondents. The location of the study is India and the total population of pet owners in India during the time the study was conducted was 30 million.

**Data Collection:** This study was conducted from 19<sup>th</sup> January 2022 to 26<sup>th</sup> February 2022. The participants could participate in the online survey by filling out the questionnaire sent through Google forms, which had 10 questions for each participant. The google form was sent and spread to willing participants through social media platforms.

**Problem Statement:** Scope and Understanding of pet services in India.

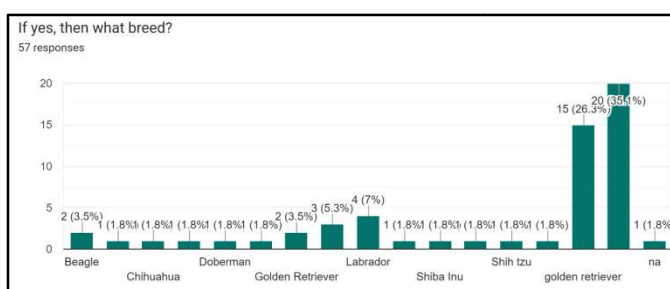
**Data Analysis and Interpretation:** To study the perception of pet services in India, we decided to concentrate on pet which is the most common household animal, a Dog. We focused on one activity of the dog which is walking and made that the centre of our survey – Dog-Walking. We had a total of 58 respondents in our survey out of whom 56 were dog owners. These are the questions and answers that were given.

**Question 1**



In the 58 respondents 96.6% that is 56 of them said yes and 2 of them said no. the number of dog owners being more than that of non-dog owners.

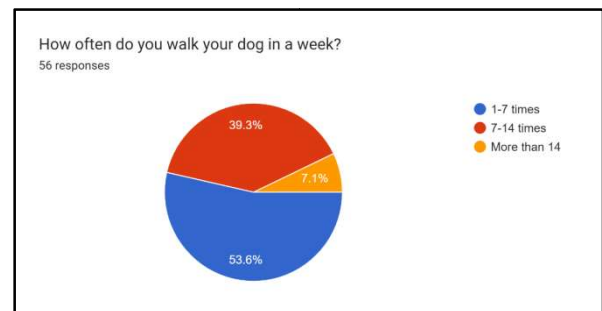
**Question 2**



In the 58 respondents, the 56 dog owners answered:

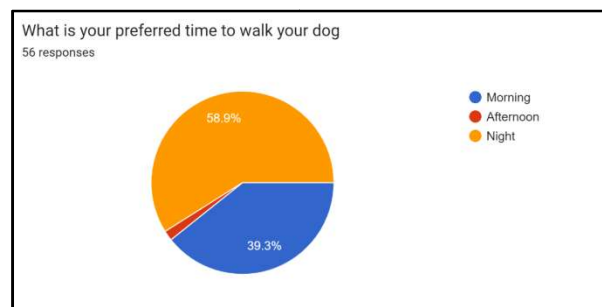
Sl No.	Dog Breed	Number of Dogs
1	Beagle	2
2	Belgian Malinois	1
3	Chihuahua	1
4	Chow Chow	1
5	Doberman	1
6	German Shephard	1
7	Golden Retriever	20
8	Labrador	24
9	Pomeranian	1
10	Shiba Inu	1
11	Shih Tzu	2
12	Siberian Husky	1
	<b>TOTAL</b>	<b>56</b>

**Question 3**



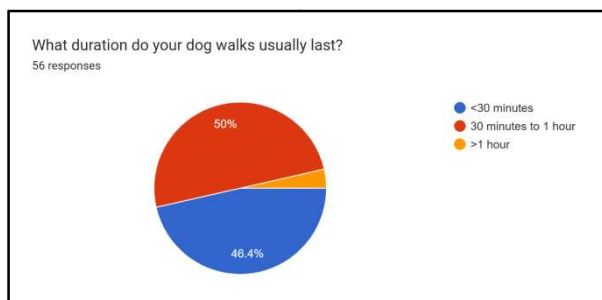
In the 56 respondents, the number of times the dog would be walked 1-7 times were 30 people, 7-14 times were 22 people and above 14 times were 4 people. The activity of a dog walking is a necessity, and something that cannot be avoided. Therefore it becomes an important part of pet services.

**Question 4**



Out of the 56 responses 33 of them would walk their dog at night, 22 of them in the morning and only 1 of them in the afternoon. The timings to walk the dog depends on the convenience and flexibility of time of the dog owner.

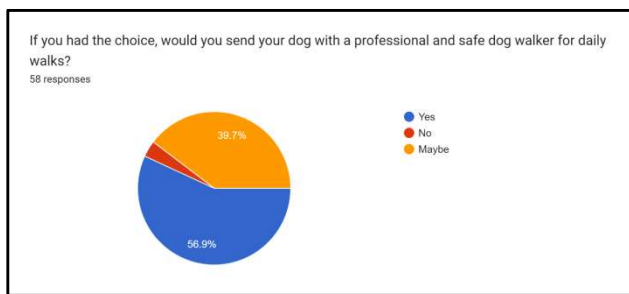
**Question 5**



Out of 56 respondents, 26 of them walk their dog within the span of 30 minutes, 28 of them in the time frame of 30 to 60 minutes and 2 of

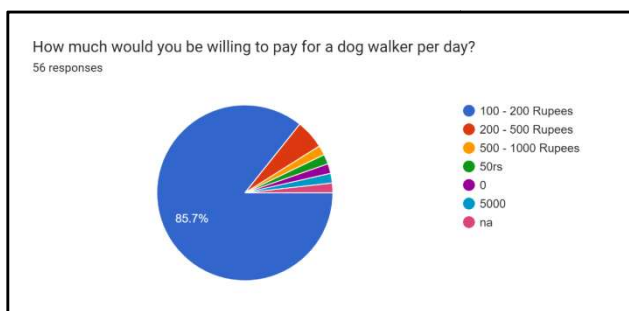
them more than 60 minutes. The time duration depends on the breed, the size, the age and the mobility of the dog.

#### Question 6



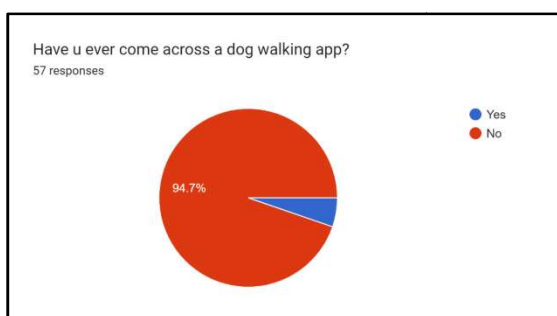
In the 58 respondents, 33 of them would send their dog with a professional and safe dog-walker for daily walks, 23 of them might send them, and 2 of them will not send their dogs. The choice of using a dog walking service is up to the owner.

#### Question 7



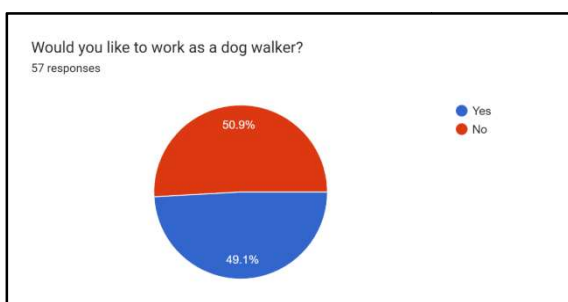
How much are the dog owners willing to pay for their dogs per day. Out of 56 respondents, 48 of them are willing to pay Rs.100- Rs.200, 3 of them for Rs. 200-Rs. 500, 1 of them for Rs.500-Rs. 1000, 1 of them for Rs. 50, 1 of them for Rs.5000 and 2 of them for Rs. 0. The pay for the walks depends on the budget of the owner and the cost of the walking service.

#### Question 8



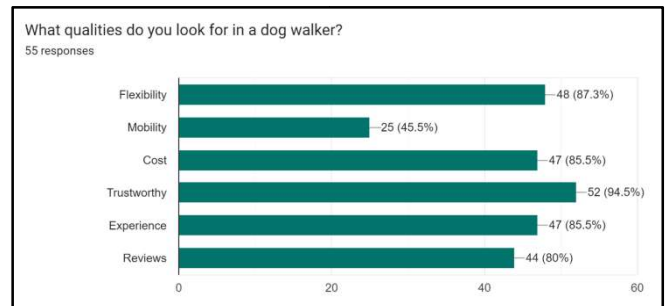
Out of the 57 responses, 54 of them have not come across a dog walking service app and 3 of them have come across a dog walking service app. A dog-walking app in India is a rare service available and at times only available to the rich.

#### Question 9



As a curiosity we decided to add this question to figure out how many respondents would like to be a dog-walker. Out of the 57 respondents, 29 of them would not like to work as a dog walker and 28 would like to work as a dog walker. Not just with the perspective of earning money but also the time spent to walk the dogs and take care of them is included.

#### Question 10



There are many qualities and factors that a dog owner would look for in a walker but the main six being- Flexibility, Mobility, Cost, Trustworthy, Experience and reviews. In this question the respondents were given the choice to choose more than one option. The most chosen option was trustworthy, second being flexibility, third being cost and experience and the least being reviews.

## FINDINGS

The above conducted survey shows that even though there are pet owners in India, the services that can help take care of animals especially domesticated ones are limited. There is less awareness of the services available and even fewer services at hand. People especially pet owners need to be more aware of the services and care that can be provided to their pets so that they can use and utilize it well. Especially in this generation, where the time being spent in taking care of pets is limited due to work schedules and time limits. Pets are an important part of a person life, its important that they are taken into consideration and taken care of. Its important to understand the necessity of pets and the services provided for them which can provide a lot of help to the owners.

#### Limitations

- Sample size:** The sample size of the study small and not representative enough to draw meaningful conclusions. Because it is only surveying a small number of pet owners or service providers, the results may not be generalizable to a larger population.
- Self-selection bias:** Participants in the study may not be representative of the broader population of pet owners or service providers, potentially leading to biased results.
- Self-report bias:** Participants may not accurately report their experiences or behaviors, potentially leading to inaccurate or unreliable results. For example, pet owners may over- or underestimate how much they spend on pet services, or service providers may overstate the quality of their offerings.
- Lack of control:** The study may be affected by variables that cannot be controlled, such as changes in the market or unexpected events. These factors can make it difficult to draw clear conclusions from the findings.
- Time constraints:** Due to the scope and complexity of the study, we are limited by time constraints, such as a short timeline for data collection or analysis. This can impact the depth and accuracy of the results.

## CONCLUSION

In conclusion, this study aimed to explore the attitudes and preferences of pet owners towards pet services. Based on our analysis



of survey data and interviews with pet owners, several key findings have emerged.

- Firstly, pet owners are generally very invested in the wellbeing and happiness of their pets, and are willing to invest time and money into finding the right pet services to meet their needs. They prioritize safety, personalized care, and clear communication when selecting pet services.
- Secondly, pet owners are increasingly using technology to research and access pet services. Online reviews, social media, and mobile apps are all important tools for pet owners when making decisions about pet services.
- Finally, there are several areas where pet service providers can improve in order to better meet the needs and preferences of pet owners. These include offering personalized care, implementing strict safety protocols, utilizing technology, and improving communication with pet owners.
- Overall, this study provides valuable insights into the attitudes and preferences of pet owners towards pet services. By understanding these preferences and making improvements in key areas, pet service providers can better meet the needs of pet owners and provide high-quality care for their furry friends.

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