Comparative study of consumer behavior patterns among different pet owner groups

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Abstract. This study investigates consumer behavior patterns among pet owners to inform more effective market segmentation in the growing pet economy. Pet owners are categorized based on pet type, demographics, and ownership experience. Using survey data and statistical analyses such as chi-square tests, t-tests, and ANOVA, the study identifies significant differences in spending habits, product preferences, shopping channels, and information sources. Younger owners tend to prefer premium, convenience-driven products and rely heavily on social media for information. In contrast, older consumers favor traditional retailers and veterinary guidance. Dog owners focus more on outdoor gear and activity-related products, while cat owners prioritize hygiene and comfort items. Ownership experience also influences brand loyalty and purchasing strategies. Based on these findings, the study introduces three consumer personas and marketing strategies aligned with each group's behaviors and motivations. These insights offer valuable guidance for both academic research and business application in the pet industry. By understanding these nuanced consumer behaviors, businesses can better tailor their products and marketing efforts to meet the diverse needs of pet owners, enhancing customer satisfaction and market competitiveness.

1 Introduction

1.1 Background

In recent years, pets have become more central in family life due to rising living standards and stressful daily life. Many people now see pets as emotional companions and family members, a cultural shift called "pet humanization" [1]. This has changed consumer psychology, increasing emotional attachment and anthropomorphic behavior in pet care. Studies suggest pet ownership boosts consumer impulsiveness and spending through enhanced well-being and social fulfillment [2]. The pet economy has seen significant growth, especially in developed countries like the US. US pet industry spending rose from $90.5 billion in 2018 to $151.9 billion in 2024 and is projected to reach $157 billion in 2025 [3].

The growth is not limited to basic care. The pet economy now covers sectors like functional foods, intelligent devices, pet insurance, grooming and training services. Brands

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like Freshpet and Blue Buffalo have redefined consumer expectations. Niche services like pet hotels are also gaining popularity [4]. Pet owners are more diverse now. Younger generations like Millennials and Gen Z treat pets " asfur babies" and seek natural, organic products [5]. They rely on social media for information [6]. Older consumers like retirees prioritize health care products and traditional brands. Family structure also affects pet spending. Single-person households spend more per pet. Families with children prioritize safe, multi-functional products. Pet owners with different work schedules have different shopping preferences.

These patterns show pet consumption is tied to owners' demographics, lifestyle and emotional attachment. As the pet economy expands, companies need to segment markets more precisely, understanding not only what pet owners buy but also why and how those decisions reflect modern lifestyle changes.

1.2 Purpose and research questions

This study aims to analyze pet owners' consumer behavior and how demographics influence their decisions. It uses quantitative data to identify patterns in shopping frequency, product preferences, brand loyalty, and information sources. For example, dog owners may focus on functional products, while cat owners care about litter quality. Younger owners rely on social media, and older one's trust vets' recommendations. Busy professionals prefer subscription models, while stay-at-home owners spend more time researching. Novice owners rely on reviews and starter kits, while experienced ones show stronger brand loyalty and opt for subscriptions or bulk purchases [2]. The research questions include differences in purchasing behavior between pet owners, the influence of demographics, the role of experience in brand loyalty and product choices, and differences in shopping and information channels across groups.

2 Classification of pet owners and consumer behavior dimensions

To accurately analyze pet owner behavior, this section introduces a classification system based on three key dimensions: pet type, demographic profile, and pet-raising experience.

2.1 Classification standards of pet owners

This study uses a multi-dimensional approach to classify pet owners by pet type, demographics, and experience for detailed consumption comparison.

2.1.1 Type of Pet

The type of pet owned plays a fundamental role in shaping purchasing behavior. This research distinguishes between dog owners, cat owners, and owners of other types of pets such as birds, fish, or small mammals. Each pet category brings specific care requirements, which in turn drive consumption choices. For instance, dog owners tend to invest in outdoor-related products such as leashes, harnesses, and chew toys. Many also purchase training tools, wearable tech like GPS trackers, or grooming services. Survey results indicate that dog owners—particularly younger and more highly educated individuals—conduct more extensive pre-purchase research, which is associated with longer weekly walks and formal in-person training sessions [7]. Cat owners, in contrast, are more likely to prioritize indoor products, including litter boxes, cat trees, and scratch-resistant furniture. Owners of small

pets may focus their spending on specialized feed, cages, or aquarium systems, often relying on niche e-commerce platforms or pet stores that cater to exotic species. Moreover, the emotional role that different pets play can further influence spending. Dogs are often seen as active companions, prompting owners to purchase travel gear, agility equipment, and joint supplements. Cats, typically more independent, may lead to spending focused on comfort and enrichment, such as heated beds or interactive toys.

2.1.2 Demographic characteristics

Demographic factors such as age, gender, occupation, and family structure significantly affect consumption decisions. Younger pet owners (aged 18–24) are typically digital natives, obtaining product information from platforms such as TikTok, Instagram, or YouTube. They show higher willingness to experiment with novel products, such as designer pet apparel, smart feeders, or eco-friendly litter options. In comparison, middle-aged consumers (35–44) are more health- and functionality-oriented, with higher expenditures on veterinary care, dietary supplements, and preventive health products. Senior pet owners (aged 55 and above) often rely on traditional information sources, such as in-store consultations or veterinary advice, and show higher concern for safety, durability, and trusted brands. Research suggests that attitudinal loyalty among experienced pet owners increases consumption of veterinary services and pet products, and often reduces price sensitivity in decision-making [8].

Gender also influences pet-related spending. Female pet owners are generally more likely to invest in premium pet food, aesthetic items like matching accessories, or comfortable bedding. Male owners may focus more on outdoor gear, utility-based items, or training services. Profession further adds nuance. Pet owners working in creative industries may prefer unique, customizable products, often shopping on platforms like Etsy or boutique online stores. In contrast, professionals in finance or business-related roles may prioritize value-for-money and well-established brands such as Blue Buffalo or Hill's Science Diet.

Family structure adds another layer of differentiation. Single pet owners often treat pets as emotional companions and may have higher per-pet spending. They are more inclined to invest in luxury grooming services, pet hotels, or DNA testing kits. Pet owners in households with children often focus on safety and shared experience, choosing products that are child-friendly or educational, such as puzzle toys or co-play gear.

2.1.3 Pet ownership experience

Pet ownership experience affects familiarity with the market, product selection criteria, and brand loyalty. Novice pet owners (less than one year of experience) often rely on store staff, online reviews, or social media recommendations to guide their purchases. These individuals may purchase a wide range of trial products before forming stable preferences. They are also more likely to invest in starter kits or bundled sets.

In contrast, experienced pet owners (over three years of experience) typically have a clearer understanding of their pets' needs and a stronger attachment to particular brands. Longitudinal studies confirm that experienced dog owners are more physically engaged and active with their pets, with sustained ownership linked to significantly higher weekly walking time and greater long-term health investment [9, 10]. Their choices are often more rational and budget conscious. Many focus on long-term solutions, such as buying in bulk, subscribing to auto-delivery services, or choosing higher-value functional products, including joint care snacks, grain-free diets, or dental hygiene products. These consumers may also participate in loyalty programs or seasonal promotions from platforms like Chewy or PetSmart, maximizing value while maintaining quality.

2.2 Dimensions of consumer behavior

This section examines pet owners' purchasing patterns from four dimensions: spending frequency and amount, product preferences, purchasing channels, and information sources.

2.2.1 Spending frequency and amount

Spending frequency and monthly expenditure are direct indicators of consumer engagement and financial commitment to pet care. Pet owners vary significantly in how frequently they make purchases and how much they are willing to spend.

Some owners shop weekly, especially for consumables like pet food and treats, while others may only purchase monthly or seasonally. Those who view pets as family members often exhibit higher spending and more frequent purchases, especially on premium items or health-related products. For example, owners who prioritize quality may choose brands like Freshpet or Royal Canin, spending $100 or more monthly on tailored nutrition, supplements, or wellness products.

Conversely, cost-conscious consumers may purchase in bulk or choose more affordable house brands, limiting shopping frequency and monthly expenditures to under $40. Subscription models also affect frequency, as services like Chewy's auto-ship option reduce the need for manual repurchasing and encourage consistent monthly spending. Such behavioral differences reflect not only income and budget but also pet owner experience, priorities, and lifestyle.

2.2.2 Product preferences

Product preferences differ across owner groups based on pet type, values, and perceived needs. Broadly speaking, pet food, treats, and toys dominate expenditure, but the types and quality of products vary greatly.

Health-conscious owners often seek organic, grain-free, or breed-specific pet food. As noted by Kobelt et al., "Consumers showed a strong preference for pet food labeled as grain-free, organic, or tailored to specific breeds" [11]. These consumers are willing to invest in functional food that addresses joint support, digestion, allergies, or skin conditions. Nguyen and Miller found that "health-related product claims such as digestive support or allergy relief significantly increased purchase intent" [12]. For instance, Hill's Prescription Diet targets specific health conditions and is often recommended by veterinarians.

When selecting treats, some owners prioritize nutritional value—opting for high-protein, low-fat options such as freeze-dried liver or dental chews—while others emphasize flavor variety and cost. Chewable snacks in flavors like chicken, salmon, or cheese are particularly popular among dog owners, whereas cat owners often purchase texture-based treats or lickable paste products.

The demand for functional products is also increasing, particularly among owners of senior or special-needs pets. These products include mobility aids, calming supplements, and digestive support formulations. In addition, wearable technology such as fitness trackers and smart collars is becoming more popular among tech-savvy pet owners. "Wearable technologies such as GPS collars, activity monitors, and health trackers are increasingly being adopted by pet owners seeking real-time data to support proactive care and lifestyle management" [13].

These preferences indicate that modern pet consumption is shaped by both practical needs and emotional investment.

2.2.3 Channel preferences

Where consumers choose to shop also reveals key differences in behavior. E-commerce has rapidly become a dominant force in the pet supply industry. Biswas et al. found that "offline price sensitivity increases significantly after online adoption in three out of four product categories" [14]. Online platforms like Amazon, Chewy, and Petco.com offer product variety, competitive pricing, and user reviews—features especially valued by younger and tech-comfortable consumers.

In contrast, brick-and-mortar pet stores continue to serve those who prefer in-person consultation, immediate product availability, or brand discovery through physical interaction. Specialty pet boutiques also appeal to owners seeking customized or locally made products.

Subscription services have emerged as a hybrid channel, offering both convenience and personalization. One study reports that "customers prioritized price, product, and personalization attributes in their CSBS choice" [15]. Services like BarkBox and KitNipBox provide curated monthly deliveries of toys, treats, and accessories tailored to pet size, breed, or preferences. These models are particularly attractive to novelty-seeking consumers and those who appreciate consistent supply without repeated decision-making.

Channel preferences are strongly correlated with age, occupation, and routine. Xu and Park found that online channels enhance consumers' focus on product desirability, while offline shopping increases focus on feasibility, reflecting deeper behavioral differences across demographics [16]. Busy professionals are more likely to adopt automated or online shopping models, while retirees or families may prefer in-store experiences for social, sensory, or educational value.

2.2.4 Sources of product information

Information access significantly influences consumer decisions in the pet industry. Today's pet owners engage with multiple information sources, combining traditional expertise with digital input.

Social media platforms such as Instagram, TikTok, and Facebook play a prominent role in shaping consumer perception. Influencers, unboxing videos, and real-time product demonstrations create strong emotional appeal and peer validation. Pet-related hashtags and community groups enable owners to discover, compare, and review products before purchasing.

Veterinary professionals remain a trusted source, particularly for dietary supplements, medical products, and health interventions. Their endorsements lend credibility and are often decisive in high-stakes decisions, such as switching pet diets or selecting treatment-related accessories.

Personal networks—friends, relatives, neighbors—also provide experiential advice, especially for novice pet owners who may lack confidence in their choices. Word-of-mouth remains effective, especially for local services like groomers, trainers, or independent stores.

Advertisements, though declining in influence compared to user-generated content, still play a role—especially in mass-market campaigns. TV commercials, Google search ads, and printed flyers help reinforce brand recognition and seasonal promotions.

An understanding of these sources helps businesses develop effective marketing strategies, choosing the right media channels and spokespersons to reach specific target groups.

2.3 Preliminary data summary and descriptive statistics

Fig. 1 displays pet ownership types: approximately 45.6% of respondents own dogs, 32.9% own cats, and 21.5% own other animals including fish, birds, and small mammals. This

structure is consistent with data from the American Pet Products Association, which reports similar distributions for the U.S. pet-owning population [3].

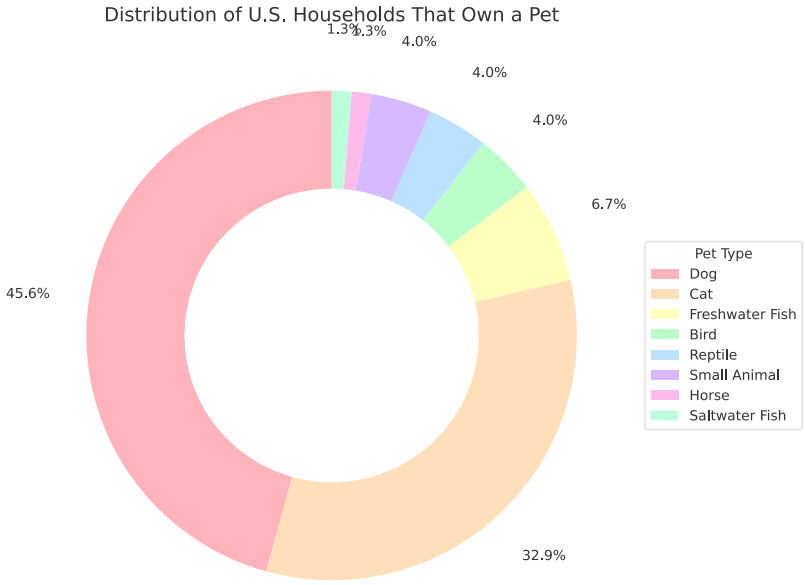

Fig. 1. Distribution of pet ownership in the United States (Data source: American Pet Products Association).

Fig. 2 illustrates average monthly spending on pet products by age group. Monthly spending averages are 62 USD for respondents aged 18–24, 87 USD for those aged 25–44, and 75 USD for those over 45. This trend is consistent with findings from a recent Statista report, which identified the 25 to 44 age group as the most economically active segment in pet-related spending [17].

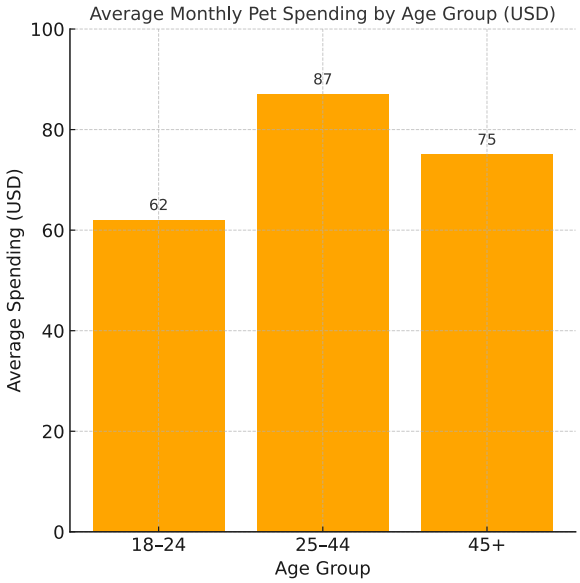

Fig. 2. Average monthly spending on pet products by age group (Data source: Statista).

Industry research has shown notable gender differences in pet product preferences. According to Packaged Facts and Pet Food Industry reports, female pet owners are more likely to prioritize health and wellness by purchasing organic, natural, or premium pet foods [18]. In contrast, male pet owners tend to focus more on utility and activity-based items, such as outdoor gear, training equipment, and functional accessories. These behavioral patterns suggest that gender plays a significant role in shaping product demand within the pet industry [19].

In terms of shopping preferences, 69% of respondents prefer online platforms such as Chewy or Amazon for purchasing pet products, while 21% shop in physical stores and 10% use subscription services like BarkBox or KitNipBox. These figures highlight the growing dominance of digital retail in the pet economy [20].

Information sources also vary. Social media, especially Instagram and TikTok, ranks as the most influential among consumers under 35, while veterinarian recommendations are more influential among those aged 45 and above. This contrast underscores the importance of age-specific marketing channels.

Together, these descriptive findings serve as the foundation for inferential analysis, persona construction, and strategy formulation in the following sections.

3 Behavioral differences and strategic recommendations

Following the descriptive statistics outlined previously, this chapter examines the nuanced behavioral differences among various pet owner groups. Inferential statistical tests are employed to verify the significance of observed variations in spending habits, product preferences, and information sources across different demographics, including age, gender, and pet type. Once these differences are confirmed, representative consumer personas are developed. These personas serve as the cornerstone for devising targeted marketing strategies and product positioning, thereby bridging the gap between data analysis and practical application in the pet industry.

3.1 Behavioral differences across pet owner segments

To rigorously test whether consumer behavior varies across demographic groups, this section applies three common statistical methods: chi-square tests, independent-sample t-tests, and one-way ANOVA.

Chi-square tests are used to examine relationships between categorical variables. For example, a chi-square test ($\chi^2 = 15.34$, $df = 2$, $p < 0.01$) identified a significant association between pet type and product preference. Dog owners were more likely to purchase functional and outdoor products, while cat owners preferred hygiene and indoor enrichment items. This suggests that pet type directly influences product category demand.

Independent-sample t-tests compare the means of two groups. A t-test showed that female pet owners spend significantly more per month (82.3 USD) than male pet owners (68.7 USD), with the difference being statistically significant ($t = 2.84$, $p < 0.01$). This supports the notion that gender influences total spending behavior.

One-way ANOVA is applied when comparing more than two groups. In this study, ANOVA results ($F(2, 297) = 9.17$, $p < 0.001$) revealed that younger respondents (ages 18–24) relied more heavily on social media for product discovery ($M = 4.3$ on a 5-point scale) compared to older age groups ($M = 3.7$ for 25–44, $M = 2.9$ for 45+). This indicates significant generational differences in marketing responsiveness.

These results validate that consumer behavior differences across pet owner segments are statistically significant across four core dimensions: purchase frequency, product preference, shopping channel, and information source.

3.2 Consumer persona construction

Based on the behavioral differences identified through statistical analysis, this section constructs three consumer personas to support market segmentation and targeted marketing. These personas help companies understand the unique needs, motivations, and habits of different pet owner groups, guiding product design, channel selection, and customer experience strategies.

Personas are built using real patterns in demographic variables (age, gender, family structure), pet type, consumption behavior (purchase frequency, product preference, spending level), and preferred information sources. Each persona reflects a distinct set of values and expectations.

Table 1. Consumer persona comparison.

Dimension	Persona 1: Single Female Cat Owner	Persona 2: Family Dog Owner with Children	Persona 3: Senior Small-Pet Owner
Age	25–34	35–44	60+
Gender	Female	Mixed	Mixed
Household	Single	Married with children	Retired/semi-retired
Pet type	Cat	Dog	Small pets (birds, fish, small dogs)
Purchase frequency	High	Medium	Low to medium
Monthly spending	>95 USD	75–90 USD	<60 USD
Product preferences	Organic food, cat trees, stylish accessories	Durable toys, multivitamin chews, grooming kits	Simple feeders, cleaning tools
Shopping channels	Mobile apps, subscription boxes	Physical stores and hybrid platforms	Vet clinics, local stores
Information sources	Instagram, YouTube, influencers	Blogs, email newsletters, in-store guidance	Veterinarians, printed media
Motivation	Convenience, lifestyle alignment	Safety, value for family	Ease of use, trust

Persona 1: Single Female Cat Owner (Age 25–34)

In Table 1, Single female cat owners are typically urban, well-educated, and digitally savvy. They tend to form deep emotional bonds with their pets, viewing them as an integral part of their lifestyle. This emotional attachment goes beyond daily care and extends to personalized needs. Many in this group consider their cats to be their "fur babies" and are willing to invest in products that provide the highest quality of life. Their purchasing frequency is high, often shopping multiple times per month. They prefer subscription models such as Meowbox, which offer both convenience and a sense of novelty.

In terms of product preferences, they are drawn to premium items like organic food, designer cat furniture, and smart accessories. These products meet not only the practical needs of their pets but also align with their own lifestyle expectations. Social media—particularly Instagram and YouTube—is their primary source of information. They actively follow pet influencers and participate in online communities, where they engage in knowledge sharing and social interaction.

Their core needs center around health, aesthetics, and convenience. This group is willing to pay a premium for branded and high-quality products, as these items enhance not only their pet's well-being but also their own quality of life.

Persona 2: Family Dog Owner with Children (Age 35–44)

Family dog owners with children typically reside in suburban areas and represent married households where pet care is a shared family activity. Pets are regarded as full family members, and their health and happiness are a central family concern. This group shops two to three times per month and prefers visiting physical pet stores to assess product quality in person.

They tend to purchase grooming kits, durable toys, and multivitamins—products that address both the pet's needs and the family's priorities around safety and practicality. For example, durable toys help prevent injury during play, and multivitamins support long-term health. These consumers gather information through both digital and offline sources,

including parenting blogs, newsletters, and in-store staff recommendations. They often consult multiple sources to ensure their purchases meet the needs of the entire household.

Their core needs include safety, value for money, and ease of use. They place a high priority on product quality and longevity and often consider educational value as well. Products that encourage pets to learn new skills through play or that foster interaction between children and pets are especially appealing to this group.

Persona 3: Senior Small-Pet Owner (Age 60+)

Senior pet owners are often retired or semi-retired and prefer low-maintenance animals such as birds or small dogs. They see pets primarily as companions that provide comfort and joy in daily life. This group typically shops once per month or less and prefers the reliability of in-store purchases.

They focus on essential, functional items like feeders and cleaning tools, which align with their routines and lifestyle. For example, automatic feeders ensure pets are fed on time even when the owner is away, and cleaning products help maintain a tidy living space. These consumers trust veterinarians and printed brochures as their main sources of information, and they are generally less reliant on digital tools.

Their core needs are simplicity, reliability, and personal guidance. They are value-conscious and pay attention to health-related recommendations. Products with clear instructions, long-term usability, and after-sales support are especially appreciated by this group, as they help seniors confidently manage pet care.

These personas highlight how demographic and behavioral differences translate into distinct needs:

Table 2. Comparative summary of consumer behaviors across pet owner profiles.

Comparison Aspect	Key Difference
Engagement	Persona 1 is highly digital; Persona 3 is offline-dependent
Spending	Persona 1 spends most; Persona 3 is most cost-sensitive
Motivation	Persona 1 = lifestyle; Persona 2 = family utility; Persona 3 = simplicity/trust

From Table 2, to stand out in the increasingly competitive pet market, businesses must develop targeted strategies based on distinct consumer personas. In terms of product strategy, differentiation should be guided by design complexity and emotional appeal. For example, single young female cat owners—who seek stylish and personalized products—may respond well to smart, tech-enabled items with aesthetic value. In contrast, older small-pet owners prioritize ease of use and practicality, and would benefit from essential, functional supplies.

Channel strategy should also vary by persona. Social media platforms are effective in reaching younger, digitally native cat owners, while a hybrid online-offline approach better serves family dog owners who value flexibility and in-person quality checks. For senior pet owners who trust traditional media, printed brochures and community-based outreach remain effective communication channels.

Content strategy plays a critical role in connecting with each persona's core motivations. Messaging for single female cat owners should emphasize aesthetics and lifestyle alignment; for family dog owners, the focus should be on safety and family-oriented value; and for older pet owners, clarity and trustworthiness are key.

By applying these personas across customer relationship management, loyalty programs, and product development, companies can enhance customer satisfaction, deliver more differentiated offerings, and better meet the diverse needs of the pet owner market.

3.3 Market segmentation and strategic recommendations

3.3.1 Basis and rationale for segmentation

The segmentation model is constructed based on the statistically validated behavioral differences (Section 3.1) and the three representative personas (Section 3.2). These differences—across spending habits, product preferences, information sources, and shopping behaviors—demonstrate clear clusters of consumer needs that demand differentiated approaches.

Segmentation helps companies move away from generalized marketing and instead align product design, pricing, and messaging with the specific motivations of each consumer group. This improves customer satisfaction, loyalty, and return on marketing investment.

3.3.2 Segmentation dimensions and group profiles

Pet owners can be segmented along the following key dimensions:

Table 3. Dimensions used to segment pet owner groups.

Dimension	Examples
Pet type	Dog, cat, or other animals
Demographics	Age, gender, family structure
Behavioral traits	Shopping frequency, product type preference, channel usage, information source

Based on these dimensions in Table 3, three primary consumer segments can be identified. The first group consists of single young female cat owners (aged 25–34), who typically live in urban areas, are highly active on digital platforms, and show strong interest in premium, health-conscious products. Their purchasing behavior is heavily influenced by social media and online trends. The second group includes family dog owners with children (aged 35–44), who prioritize safety, functionality, and child-friendly design. They tend to shop through physical stores or a combination of online and offline channels. The third group comprises senior small-pet owners (aged 60 and above), who seek simple, easy-to-use products and professional guidance. This group places greater trust in veterinary recommendations and prefers traditional, in-store shopping over digital channels.

These distinct segment characteristics provide a clear framework for understanding the varying needs and preferences of pet owners. By recognizing these behavioral patterns, businesses can design more tailored marketing strategies that align with each group's values and decision-making processes.

3.3.3 Targeted marketing recommendations

In terms of product design, businesses should tailor offerings to align with the needs and preferences of each persona. For Persona 1 (single young female cat owners), smart pet devices, designer accessories, and curated subscription boxes are recommended to meet their demand for high-end, personalized products. For Persona 2 (family dog owners with children), multifunctional toys, grooming kits, and health-oriented treats should be emphasized, with a focus on safety and family-friendly features. For Persona 3 (senior small-pet owners), simple feeders, cleaning tools, and clearly labeled packaging are ideal to ensure ease of use and reliability.

Regarding marketing channels, social media platforms such as Instagram and TikTok, along with mobile applications, are most effective for engaging Persona 1. For Persona 2, a mix of digital and physical channels is recommended, including email campaigns, pet and parenting blogs, and in-store promotions. Persona 3 is best reached through printed brochures,

informational materials in veterinary clinics, and sponsorship of local community events, as these channels align with their preference for traditional sources of information.

In terms of pricing and promotion, high-spending groups like Persona 1 can be targeted with loyalty programs, pre-order incentives, and premium subscription services to encourage long-term engagement. For more price-sensitive groups such as Persona 2 and Persona 3, discount bundles, offline coupons, and senior-friendly pricing can increase accessibility and attract cost-conscious consumers.

By implementing these targeted marketing strategies, companies can not only improve customer satisfaction but also increase marketing efficiency and competitive advantage. These strategies are feasible from technological, economic, and human resource perspectives and have the potential to generate substantial returns for businesses operating in the pet industry.

3.3.4 Strategy implementation feasibility

Technical Feasibility: All strategies can be supported by CRM systems (e.g., Salesforce, Zoho), marketing platforms (e.g., Klaviyo, HubSpot), and data tools (e.g., Excel, R, Tableau). Automated segmentation and campaign personalization are industry standard.

Economic Feasibility: Market studies suggest that RFM-based targeting boosts repeat purchases by 10–20% and improves customer lifetime value by 25% [21]. Persona-based campaigns enable better ROI through focused ad spend and higher engagement.

Human Resource Feasibility: Marketing teams can implement strategies with minimal training. Customer service staff may need new product knowledge scripts. One CRM/data analyst may be needed for tracking and refining persona performance.

3.3.5 Summary and strategic value

By aligning product design, marketing channels, and content strategies with the actual needs and behavioral patterns of distinct consumer personas, companies can more effectively meet customer expectations, enhance satisfaction, and improve brand adaptability in a dynamic market. A well-executed segmentation strategy enables more efficient allocation of marketing resources, reduces waste, and increases the return on investment by targeting the right audiences with relevant offerings.

Personalized products and services also foster stronger customer relationships, promoting long-term engagement and repeat business. In a highly competitive pet industry, differentiation is essential for standing out, and precision-driven segmentation combined with personalized marketing creates a unique value proposition that directly addresses the specific needs of each consumer group, thereby building sustainable competitive advantage.

When marketing decisions are grounded in validated behavioral insights and data, businesses can formulate strategies with greater scientific rigor, improve the accuracy of decision-making, and establish a framework for continuous refinement. This data-informed approach allows companies to stay agile, responsive, and strategically aligned with evolving market demands.

4. Conclusion

4.1 Summary of key findings

This study explores how pet owners' consumer behaviors vary by pet type, demographics, and experience. Pet type affects purchasing: dog owners prefer functional and outdoor

products, while cat owners focus on hygiene and indoor items. Middle-aged consumers spend the most, with females favoring health products and males opting for practical items. New owners rely on online reviews and starter kits, whereas experienced ones show brand loyalty and prefer subscriptions or bulk purchases. Younger owners turn to digital platforms for information, while older ones trust traditional sources.

Based on the findings, three consumer personas were created: Single Female Cat Owner, Family Dog Owner with Children, and Senior Small-Pet Owner. Each represents unique needs and behaviors. The study highlights the need for precision-based segmentation. Customized approaches that match consumer profiles can boost customer satisfaction, marketing efficiency, and competitive advantage in the pet industry.

4.2 Limitations and future research directions

This study has several limitations. First, the limited sample size and geographic coverage may not fully reflect national or global diversity in pet ownership behavior. Future research should increase sample diversity. Second, reliance on self-reported data from online surveys introduces potential biases. Future studies could incorporate observational data or purchase history. Third, the research focuses on static personas and cross-sectional behavior snapshots, while consumer behavior evolves over time. Longitudinal research would improve segmentation accuracy. Fourth, cultural context was not explicitly addressed. Future studies could conduct cross-country analyses. Finally, the study did not include real-time digital behavior data. Integrating such data could uncover more nuanced behavioral triggers. Future work should combine survey data with behavioral analytics and collaborate with industry stakeholders.

References

1. M. J. Dotson, E. M. Hyatt, Understanding pet humanization: The role of social norms and emotional attachment. J. Bus. Res. **136**, 364–371 (2021) https://doi.org/10.1016/j.jbusres.2021.07.022
2. Y. Hou, Y. Zheng, X. Li, Pets make you spend more: Impact of pet ownership on consumer purchase decisions. J. Consum. Psychol. **33**, 591–605 (2023) https://doi.org/10.1002/jcpy.1324
3. American Pet Products Association (APPA), Pet Industry Expenditure Statistics (2025) https://www.americanpetproducts.org
4. A. L. Smith, R. E. Clark, Gender-based differences in pet product consumption: An exploratory study. J. Consum. Mark. **40**, 45–58 (2023) https://doi.org/10.1108/JCM-03-2022-5114
5. X. Liang, J. Zhao, H. Wang, Attitudes of Chinese college students toward pet welfare and responsible consumption. Animals. **14**, 3242 (2024) https://doi.org/10.3390/ani14223242
6. S. A. Lopez, H. J. Kim, The role of social media in pet-related consumer behavior: A generational analysis. Comput. Human Behav. **130**, 107166 (2022) https://doi.org/10.1016/j.chb.2022.107166
7. A. Philpotts, L. C. Morgan, K. M. McMillan, Factors influencing pre-purchase behaviour and physical activity outcomes in new dog owners. Animals. **14(3),** 396 (2024) https://www.mdpi.com/2076-2615/14/3/396

8. B. Brown, M. Kaartinen, C. Ralph, Attitudinal loyalty and pet healthcare choices. Veterinary Sciences, **5(4)**, 95 (2018) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6313907/
9. Y. Taniguch, S. Inoue, K. Oka, Dog ownership and physical activity: A longitudinal analysis of German adults. Scientific Reports, **14**, 77231 (2024) https://www.nature.com/articles/s41598-024-77231-x
10. H. Cutt, B. Giles-Corti , M. Knuiman, Does getting a dog increase recreational walking?. Preventive Medicine, **47(3)**, 290–295 (2008) https://www.researchgate.net/publication/5485272
11. A. J. Kobelt, A. J., Consumer preferences for pet food attributes: A discrete choice experiment.Appetite. **136**, 190–198 (2019) https://doi.org/10.1016/j.appet.2019.01.017
12. P. G. Nguyen, A. Miller, Pet food choice among U.S. dog owners: Influences of health claims and emotional attachment. Animals. **13(4)**, 651 (2023) https://doi.org/10.3390/ani13040651
13. E. E. Bray, et al., Wearable technologies in the pet care industry: Benefits and challenges Veterinary Technology Review. **18(2)**, 87–95 (2022) https://doi.org/10.1016/j.vetrev.2022.02.004
14. R. Biswas, H. Zhang, H. Yoganarasimhan, How does online shopping affect offline price sensitivity? (2025) https://arxiv.org/abs/2506.1510
15. I. Jeong, Curation subscription box services: Implications for the pet industry. Electron Commerce Res. (2022) https://www.researchgate.net/publication/374334747_Curation_Subscription_Box_Services_Implications_for_the_Pet_Industry
16. C. Xu, J. C. Park, The effect of shopping channel (online vs offline) on consumer decision process and firm's marketing strategy. Internet Research. (2021) DOI:10.1108/INTR-11-2020-0660
17. Statista, U.S. Pet Owners: Average Monthly Spending by Age Group (2024) https://www.statista.com/statistics/1093610/us-pet-industry-expenditure-age-group
18. Pet Food Industry, Pet Food Consumer Trends Report (2024) https://www.petfoodindustry.com/articles/12547-consumer-pet-food-buying-trends-2024
19. Packaged Facts, U.S. Pet Market Outlook 2023–2024 (2023) https://www.packagedfacts.com
20. Pet Food Industry Report, Channel Preferences in the Pet Market (2025) https://www.petfoodindustry.com
21. McKinsey & Company, The Value of Personalization in Marketing (2023) https://www.mckinsey.com/business-functions/marketing-and-sales/our-insights/the-value-of-getting-personalization-right