



Unlocking Business Insights: The Link Between Pet Owner Spending, Time Commitment, and Attachment

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Abstract

This research paper investigates the links between pet owner attachment, time investment, and spending, with the goal of revealing how emotional and behavioural variables can translate into financial decisions in the pet care industry. Utilizing theories from human-animal interaction, psychology and consumer behaviour, the study seeks to examine how emotional connection to pets drives owners' investment in pet products and services. A quantitative research method was used, utilizing structured survey data, variable such as attachment, time investment, spending, propensity to try, and loyalty to brand were analysed via correlation and regression. The literature review identifies increasing premiumization, and emotional contingent behaviour toward pets has surged during and after the COVID-19 pandemic, there seems to be no clear integration of psychological attachment to a pet with real behaviour related to spending. The results of the Pearson Correlation indicates that owners who are more invested in their pets emotionally or with time spent, spend more and are more likely to be loyal to certain brands. The results of the findings Cronbach's Alpha (α) of more than 0.8 means indicate a greater humanization of pets. Overall, this study contributes to both marketing and behavioural literature by providing an all-in model, stating that attachment to a pet could be integrated to consumer spending, along with necessitating greater consideration of these attachments across demographics and cultures, to further understanding of spending in the ever-changing pet economy.

Keywords: Pet Owner Attachment, Time Commitment, Spending Behaviour, Human–Pet Relationship, Consumer Psychology

I. Introduction

The pet economy is increasing worldwide across products, services, insurance, and premium segments. Pets are viewed more often as prized members of the family that can provide emotional support, companionship, and protection while delivering its own quantifiable benefits beyond the cost of ownership (Honeycutt, 2018). In 2022, it was reported that 66% of households in the U.S. had a companion animal with the most frequent pet being a dog, followed by cats and freshwater fish (Bedford, 2023). Other countries are witnessing similar trends, as evidenced by the fact that Portugal had 3.1 million registered companion animals in 2022 (P3, 2022). Cultural shifts have changed the configuration of pets identified and cared for in households. Pets are no longer seen as possessions or something adopted, but rather, companion animals that are part of the sentimental lifestyle of family living that is so tenderly evident according to the media of today. There is a change from ownership to indoor companionship (Kennedy & McGarvey, 2008). Therefore, sentimentality is highlighted between owners and pets, and companionship has become increasingly like human relationships (Holbrook & Woodside, 2008). Even with some supporting research, companionship is primarily the purpose of many pet owners, across types of pets, which have been extrapolated to include everything from dogs and cats to birds (Gates, 2019). Less significant pets often serve as hobbies, or to engage in some relaxation.

Psychological characteristics of the human-pet relationship, including bonding, attachment and anthropomorphizing, are implicated in consumer behaviour. While research indicates spending is often skewed towards mandatory spending categories (food, vet visits, etc.) (Lue & Pantenburg, 2008; Brockman & Taylor, 2008; Cheong & Kok Hou, 2014; Tesfom & Birch, 2010), the research also provides some evidence that attached owners tend to anthropomorphize their pets and spend disposable income on not-needed items for their pets (Apaolaza, Hartmann, Paredes, Trujillo, & D'Souza, 2022). Nevertheless, there has been limited exploration of non-essential spending to investigate if the type of pet owned (dog versus cat) will provide any insights into consumer intention (D'Souza, Apaolaza, Hartmann, & Nguyen, 2023). There is also some evidence that dog and cat owners may differ in financial behaviours more broadly. For example, cat owners have been found to take more cautious investment actions than dog owners (Jia, Yang, & Jiang, 2022). Whether such behavioural difference carries over to pet-related spending has not yet been explored. Existing research has examined adoption motivations (Holland, 2019) and the pet as a representation of the owner's personality traits (Chopik & Weaver, 2019), yet little research has been done to understand how their pet's characteristics and personality may have an influence over consumer purchasing behaviour. There is growing recognition that the wellbeing of humans, animals, and the environment is connected and that interdisciplinary approaches, like One Welfare (Colonius &

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Earley, 2013; Pinillos, 2018; Pinillos et al., 2016), are needed. This model encourages the cooperation of fields to develop policies that advances wellbeing for all. Within One Welfare, the human-animal bond (HAB) has received growing focus as a key to positive health outcomes (Pinillos, 2018).

The HAB can be broadly defined as a continuing, mutually beneficial relationship for humans and animals (Russov, 2002). The HAB is grounded in Bowlby’s (1958) theory of attachment, which reflects a human’s innate motivation to establish close, reliable relationships. Empirical investigations and observations acknowledge that, while not every human will develop a significant or even any emotional attachment to animals within a household, pets are often included in the hierarchies of attachments that people create hierarchically. One of the key aspects of a HAB is the emotional comfort that pets offer (Meehan et al., 2017). Studies consistently demonstrate that interacting with animals can yield physical, social, psychological, and emotional benefits. Numerous positive effects from interacting with animals have been reported including lower blood pressure and stress levels, enhanced social connection and a greater feeling of mood and purpose (Beetz et al., 2012; Fine et al., 2019; Hoy-Gerlach & Wehman, 2017; Hoy-Gerlach et al., 2019). Biological research indicates that these benefits are mediated by levels of oxytocin, a bonding hormone, during human-animal interactions (Marshall-Pescini et al., 2019). Likewise, companion animals receive benefits in the form of food, shelter, veterinary care, and emotional bonds of reciprocity. Human health and animal welfare continue to converge in their work towards preventing relinquishment of companion animals, as its known that these bonds support well-being in both animals and humans while concurrently reducing chances of homelessness for pets (Gorzcyca et al., 2006; Kelly et al., 2010; Pinillos, 2018; Rauktis et al., 2021).

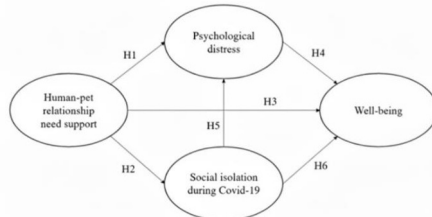


Figure 1. Conceptual Framework of Human-Pet Relationship Dynamics During COVID-19

This conceptual framework represents the likely relationships among human-pet relationship support needs, psychological distress, social isolation during COVID-19, and well-being. It identifies emotional reliance on pets as a possible means to mitigate psychological distress (H1) and social isolation (H2) before they affect well-being (H3-H4). Further, the framework identifies relationships among social isolation as a contributor to psychological distress (H5) and as the two affecting well-being (H6) collectively. This framework and study align with the literature that highlight the relationship between pets and emotional stability, companionship, and stress reduction, therefore impacting owner’s attachment, commitment of time, and related behaviours in the post-pandemic pet economy.

The model we provide builds off the relationships of Kanat-Maymon et al. 2016 and Kanat-Maymon et al. 2021. The later study identified the giving component of dogs' need support for giving showed to contribute to human well-being, reduce human psychological distress, and related to human feeling of closeness to the dog. Our model (Fig. 1) has a mutually exclusive focus of subjective well-being as the only target construct. We clearly do identify closeness to the dog for many reasons, (more detail further on, see discussion), but subjective well-being is the primary focus of our model. Human-Pet Relationship Need Support is proposed as a higher-order construct (HOC) that has both a giving and a receiving dimension of need support. Human social isolation during Covid-19 can be conceived as an individual and sequential mediator between the Human-Pet Relationship Need Support and subjective well-being; in addition, psychological distress also is a mediator. The model we are presenting is inspired by the connections established in Kanat-Maymon et al. (2016) and Kanat-Maymon et al. (2021). The first paper by Kanat-Maymon et al. (2021) found that dogs' need support for giving became a predictor of human well-being, reduced human psychological distress, and was also related to human closeness to the dog. Our model (Fig. 1) has a similar exclusive targeting of subjective well-being as the target construct. We nevertheless consider closeness to the dog for various reasons (for more detail later see discussion). Human-Pet Relationship need support is treated as a higher-order construct (HOC) that distinguishes between need support for giving and need support for receiving. Therefore, human social isolation (during Covid-19), individual and sequential mediator, can be positioned between human-pet relationship need support to subjective well-being, where psychological distress is also a mediator.

While dog ownership has the potential for positive influences on health and well-being, findings have been mixed across the spectrum of studies related to depression, loneliness, physical health, and blood pressure (Gee & Mueller, 2019; Herzog, 2011; Kramer et al., 2019). Systematic reviews point to methodological issues and sampling restrictions, as well as the differing populations studied, which makes it impossible to generalize a butterfly effect (Gilbey et al., 2007; Westgarth et al., 2019). Negative influences can also occur especially during moments of development, illness, aging, or loss (Meehan et al., 2017; Spitznagel et al., 2019), and unwanted behaviours including barking, aggression, or separation anxiety add to the overall strain of the household (Powell et al., 2018). Ownership of dogs also presents responsibilities that involve managing practical issues regardless of well-being (i.e., costs, logistics, housing considerations, etc.), and introduces risks related to zoonoses/allergies while also increasing dogs' ecological "paw print" (Mills et al., 2017; Toribio et al. 2019).

The ongoing prevalence of high rates of dog ownership, despite the associated costs, is indicative of Social Exchange Theory (SET) because, according to this theory, a person is motivated to continue a relationship when they perceive more rewards than costs (Homans, 1958; Netting et al., 1987). When applied to pet ownership, SET proposes that owners will keep their pets as long as perceived benefits exceed the associated costs. Alternatively, if the costs become burdensome, an owner may decide against owning a pet, or they may relinquish their pet (Applebaum et al., 2020; Shore et al., 2003). Reports of relinquishment of pets continues to be a critical welfare concern, which has been attributed to behavioural issues and changes in life circumstances (Diesel et al., 2010), although some studies have suggested people who are realistic about their expectations and are flexible when a pet misbehaves, are at reduced risk of relinquishing a pet (Marston et al. 2005). It is important to note that on the high end of the spectrum, despite the burden, some dog owners freely and willingly spend considerable resources—financial, emotional, and social—to prioritize a pet over their own health or employment (Sutcliffe et al., 2019). In this situation, closeness between a pet and an owner predicted higher investment of resources and increased emotional returns (Meehan et al., 2017; Powell et al., 2018). Pet owners vary in their perspectives regarding the “costs” (e.g. money, time, stress, sleep) and “benefits” (e.g. companionship, mental health, unconditional love), based on their individual motives for pet ownership, the level of attachment, and their expectations (Cardoso, 2024).

Even though prior studies have reported positive aspects of pet ownership, such as health outcomes and satisfaction with the relationship, they have also reported more generalized benefits (e.g., family cohesion and taking on a pet from a rescue) and reported few negative outcomes (Albuquerque, et al., 2020; Arhant, et al., 2019). In general, tools to gauge pet ownership and indices of assessment such as the Monash Dog Owner relationship scale (Dwyer et al., 2006), are subjective and bias is created based upon the framing of the items to the question and from the way the measurement creates the perception of burden (Marty et al., 2020). Findings in general relate only to certain sub-groups, such as families with children, old pet owners, or distressed owners, such as during COVID-19 or financial hardship (Applebaum et al., 2020; Westgarth et al., 2021). These are greatly important limitations for consideration since the rationale is to use a balance, holistic method of examining relationship benefits and costs from pet ownership to owners. This model demonstrates the relationship between different relational and emotional factors that contribute to attachment to pets and how that attachment shapes generalized attitudes about animals. As indicated in the model, each of the caring behaviour, friendship behaviour, and compassion contributes importantly to stronger attachment to pets, but friendship behaviour predicting attachment the most. This attachment influences a positive behavioural intention towards animals in general. In this context, the figure provides support for the argument to suggest that human–pet relationship quality weaving care, empathy, and companionship can influence owner and pet commitment, perceived costs and benefits, and consumer behaviour regarding pets and general animal behaviour. The study recommends that in India, recurrence, assurance, reliability, and responsiveness inform customer satisfaction while also providing value-added benefits; service customization and process innovation were not significant moderators in the satisfaction–engagement relationship. In the UAE, reliability is the only satisfaction driver, while service customization and process satisfaction were significant moderators between the relationships of satisfaction and engagement.

Traditional pet store has long been viewed as the foundation of the pet consumer marketplace. However, increased disruptions are being caused by the rapid expansion of online marketplaces, which accelerated during the pandemic. The number of offline stores is increasing in number and when you outline the low entry barriers, rapid growth of the marketplace, and homogenization of service and product offerings, brands and customers are less inclined to base their loyalty to a store. Fickle customer loyalty results in significant customer churn, thus, storing ongoing competitive advantage and a relevant point of differentiation in the marketplace is paramount. Traditional pet stores need to innovate and find new ways to unify marketing around products and service, improve service through service quality, service pricing, service distribution, service communication, and personnel service management. Developing unique services and a customer driven emphasis in service delivery is paramount to the development of customer loyalty, lowering customer churn, and a pathway to long term success (Cardoso, 2024).

Simultaneous with ease of access to valued products for pets, a growing awareness on a global level has been reached regarding the importance of animal welfare, resulting in the need for understanding consumer behaviour when pet ownership is considered. Evidence suggest that owning a pet has been shown to develop stronger empathy, more positive feelings for animal welfare, and a greater willingness to purchase pet products identified as animal welfare certified. Using propensity score matching analysis, a study of students in China, showed greater awareness, enhanced emotional attachment and increased preference for animal welfare labelled products for pet owners when compared to non-pet owners. These results provided us valuable insights into the ways consumer behaviour is influenced by ownership and highlighted the collaborative efforts needed across education, policy, and markets to advance animal welfare (Zhang & Li, 2021).

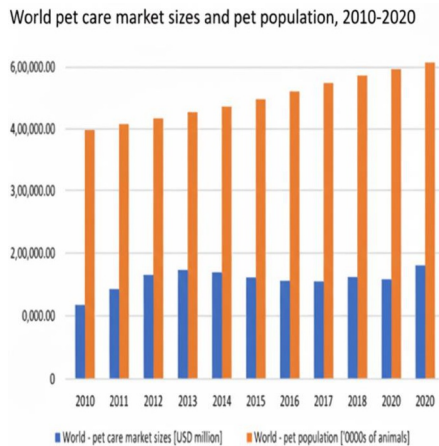


Figure 2. Global Increase in Pet Population and Pet Care Market Size, 2010-2020

This figure 2. illustrates a global increase in both pet population and pet care market size from 2010 to 2020. The orange bars illustrate the increase in the number of pet ownership. The blue bars illustrate the increase in market value of the pet care industry (in USD million). The trend indicates the increasing emotional and economic importance of pet ownership, consistent with the goal of this study established in the introduction, which suggested that the human-pet relationship has evolved from one of companionship to one of a support system. This trend also emphasizes the purpose of the research focused on pet owners' emotional and behavioural investment in a pet in the context of post-pandemic pet ownership, where pets have become integral in promoting well-being and psychological resilience in life. While pets have often been compared to children, there are some important distinguishing features—pets can be bought, sold, and given up and pets do not provide care to their owners across a long period of time. However, their cultural and social significance has increased, and they are recognized further in the legal and policy world. On an economic level, the pet industry has expanded from food to veterinary services to toys and accessories, pharmaceuticals, fashion, media and pet cemeteries (Frączak-Rudnicka, 2015; GMID, 2022). Pricy services such as grooming, dietary consultations, and hotels are growing with the consumer demand to pay. This broadening ecosystem argues for a more robust exploration of pets and pet consumption in academia, in ways that can benefit consumers and businesses.

This paper is organized as follows: Section II Literature Review introduces relevant theoretical literature and empirical studies pertaining to the human–pet bond, social isolation, and well-being (especially exacerbated during the pandemic). Section III Methodology details the research design, data sources, sample selection process, and analytical techniques conducted to address the proposed hypotheses. Section IV Results and Analysis cover descriptive statistics, correlations, and regression results to support the proposed conceptual framework. Section V Conclusion and Future Scope summarize the main findings, discusses their relevance to individuals' pet ownership behaviour and well-being, and extends potential opportunities for future research as the practice of pet-care continues to evolve.

II. Literature review

A. Growth and Transformation of the Pet-Food Industry:

The global pet food sector has experienced substantial growth, with global sales increasing from \$65.9 billion in 2012 to \$123.6 billion in 2022, with the U.S. as the largest market at \$53.04 billion (Statista, 2023; Statista, 2024). The primary drivers of this trend are pet ownership growth, rising disposable income, and shifting consumer preferences toward premium pet food and health-oriented consumer products (Coy et al., 2021; Hobbs et al., 2024; Marketline, 2024). Pet health issues are a factor in this trend: the research indicates that 65.8% of dogs had at least one health disorder (O'Neill et al., 2021) and of dog and cat owners in the U.S., 59% and 61%, respectively, had overweight or obese animals (Association for Pet Obesity Prevention, 2022). Thus, growth is experiencing the emergence of an increasing food market of health and wellness. Aspects of health and wellness are now driving factors in purchase decisions for many pet owners. Furthermore, the large increase in interest around premiumization and humanization (where pets are treated like family) has raised consumer expectations around quality and safety of pet foods (Chen et al., 2012; Pet Food Industry, 2017; Cambridge University Press, 2021). We see examples of consumers voting with their wallets when they are willing to pay a price premium for pet food that is intentionally for a health purpose, or associated with breed, or associated with a life stage (van der Velden, 2022; Cavazos et al., 2023; Pearce et al., 2023). All this leads to an opportunity for a profitable market for producers who offer product lines that have non-traditional attributes that are health/wellness based.

Although the research on pet food selection is expanding, most of the research focuses mainly on sensory characteristics (i.e., aroma, palatability, formulation) and marketing characteristics such as a particular brand and buying channel (Koppel, 2014; Samant & Crandall, 2021; Wagoner et al., 2022; Schleicher et al., 2019). There is ample evidence that pet owners care about wellness, quality, and palatability; health-conscious consumers tend to purchase health-oriented products (Boya, 2012, 2014; Chen et al., 2012; Hobbs, 2023). However, the literature has not pointed to wellness attributes that are most likely to be profitable, which impedes knowledge for decision makers on the direction of innovative attributes and product differentiation. Recent studies have attempted to explore this gap relative to hedonic pricing to value the premium for wellness attributes with respect to dry dog food, a common pet food segment (Grey Views, 2022). Utilizing data from Chewy.com related to over 1200 products, price variation was related to attributes of ingredients, packaging, and health claims to filter through pricing trends. The findings process information regarding firms' sustainable pricing or marketing to refer to, in terms of price packaged to reflect consumer preferences as it applies to wellness-related attributes.

B. Pricing, Product Attributes, and Emerging Wellness Segments:

This article contributes three areas to the literature; first, it introduces hedonic pricing to the pet food literature. Second, it studies a specific focus on wellness attributes. Finally, it generates processes for firms to follow to sustainably utilize pricing and marketing to enter toward product positioning and differentiation. Salmon & Salmon (1983) and Fröhlich (2002) point out that historically the relationship between humans and their pets has provided companionship, love, and improved well-being to the caregiver. Within the last decade, we have seen the human-pet relationship expand to travel behaviours with greater interest from pet owner's traveling with dogs. The hotel sector has also responded to the growing interest, welcoming dogs in their properties and developing dog-friendly programs (Carr & Cohen, 2009). Although these practices in the hotel sector could also introduce unknowns, such as liability and policy enforcement, the hotels are attempting to manage risks and behaviours with pet policies (Rooney & Smith, 1996). Like the hotel sector, academia is deficient in research on pet-inclusive hospitality. The research at hand has documented pet owners stated willingness to travel with their pets, documented the disjuncture between expectation and experience for dogs and their handlers, and noted a marked increase in available experiences for dog-friendly hotel guests. Dissonance in expressed attitude and the hospitality industry paradigm towards dogs has still received little scholarly attention (Dotson et al., 2011).

C. Pets as Attachment Figures: Psychological Foundations:

Pets typically meet the four standards of an attachment relationship which are: seeking proximity, serving as a haven during distress, serving as a secure base from which to explore, and experiencing the distress of separation from the attachment figure (Ainsworth et al., 1978; Doherty & Feeney, 2004; Kurdek, 2008). Research indicates that individuals frequently regard their pets as being sources of unconditional love, affection, support, and sadness over the loss of a pet may be comparable to sadness following the loss of a human attachment figure (Allen et al., 2002; Hunt et al., 2008; Wrobel & Dye, 2003). While pets do not serve as advisors in the same capacities as human attachment figures, and cannot serve as "the stronger and wiser" (Levinson, 1969; McNicholas & Collis, 1995), they nevertheless serve critical emotional functions. Pet-owner relationships are characterized by, in many cases, commitment, warmth, loyalty, and non-judgmental acceptance. Pet-owners rely on their pets as secure, comforting partners (Hirschman, 1994; Levinson, 1969).

Attachment orientation is associated with individual differences and associated with early experiences that manifest in patterns of expectations, emotions, and behaviours, as well as pet relationships (Brennan et al., 1998; Fraley & Shaver, 2000). Much like in human relationships, attachment anxiety involves fear of abandonment and increased proximity-seeking with pets, while avoidance refers to discomfort with closeness and an emphasis on self-sufficiency (Collins & Read, 1990; Mikulincer & Shaver, 2007). Pets can be especially well suited to study

the trait-like quality of attachment orientations-since they are constant and accept the human unconditionally, unlike partners who may be associated with some degree of behavioural variability (Hirshman, 1994; Levinson, 1969). The current instruments like the Lexington Attachment to Pets Scale (Johnson et al., 1992) mainly measure bond intensity rather than attachment quality. Recent research advocates for scales that would examine anxiety and avoidance, as context (here pet attachment) introduces unforeseen nuances into the assessment (Crawford et al., 2006; Zilcha-Mano et al., 2011). While pet attachment orientations do moderate the direction of general attachment orientations, they are purposefully situational to contexts of pet representation, general mental health measures, and grieving the loss of a pet (Zilcha-Mano et al., 2011).

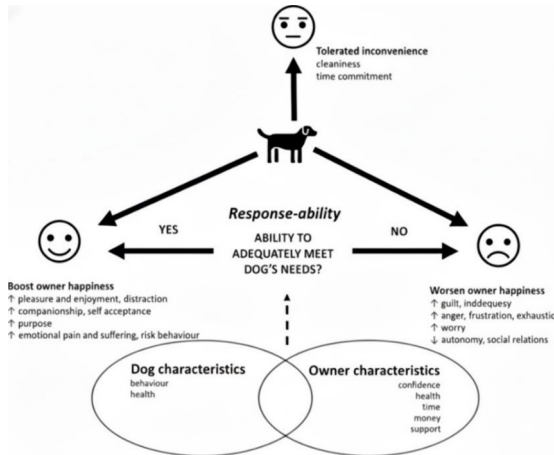


Figure 3. Conceptual Model of Happiness for Owner Based on Ability to Meet Pet Needs

Figure 3 shows what is being referred to as the “Response-ability” model that articulates the relationship of an owner’s ability to meet their dog’s needs to their ability to respond with an emotional response of well-being. The model suggests the owner’s ability to meet the physical, behavioural, and emotional needs of their pet will positively impact happiness throughout the relationship, create emotional stability, and create purpose. Failure to meet these needs will lead to feelings of stress, guilt, or emotional grief. Overall balance is established when dog characteristics (e.g., behaviour, health, social needs) are matched with owner characteristics (e.g., time, resources, emotional support) to create the best conditions and possibilities for enhancing well-being. In relationship to the study in this paper, the schematic reflects the literature confirming how pet ownership facilitates psychological resilience, attachment, and life satisfaction which are the key constructs explicitly addressed in a study examining the larger context of life during COVID-19 as it relates to human-pet dynamics and afterward. Having a pet dog is often believed to provide positive benefits to the owner, but there is little direct evidence connecting pet ownership to positive mental health. A large mixed-methods study in the UK examined if strong relationships to pets were associated with better mental health among dog owners (N=1,693). The study used validated measures of mental health (PROMIS measures of depression, anxiety, emotional support, and companionship; MDORS measures of dimensions of dog-owner relationships). The study found the dog owners who reported a strong attachment to their dog reported higher levels of support and companionship, and higher levels of depression and anxiety. Interestingly, the perceived costs of ownership were positively correlated with mental health, providing evidence that responsibility may confer resilience and coping. The qualitative reports addressed both the favourable and unfavourable elements of dog ownership: the positive circumferences (companionship, purpose, distraction, emotional support) represented hedonic wellbeing and eudaimonic wellbeing, while negative elements described the challenges of ownership (anticipatory grief, guilt, and frustration), showing negative aspects of responsibility. The ability to address a dog’s needs resulted in personal development and positive connectedness, while the feeling of being unable to address a dog’s needs led to decreased feelings of autonomy and environmental mastery. Overall, dog ownership provides several benefits to wellbeing; however, there were aspects of challenges of responsibility and owner-dog interaction.

D. Growth of Pet-Related Businesses and Marketing Implications:

The exponential rise in dog ownership, dog-related products, and services spotlights the need to understand more about dog-human companionship, and the marketing implications around this. There is evidence to suggest that specialty purchases and activity/youth exert a bigger influence on willingness to pay for dog companionship, whereas personal boundaries determine product and service purchase likelihoods. The differences in gender were

also also apparent, in that females expressed stronger purchase intentions for dog products in India's context. Insights such as these will provide additional dimensions for managers to design marketing strategies aimed at targeting the pet owner world and its formerly owlish purchase behaviour (Kumar & Kumar, 2024). Conversely, additional studies based in associative priming, anthropomorphism, and biophilia examine how brand cues affect willingness to pay. The results showed that natural-organic logos elicit stronger utilitarian (functional/economic) value to consumers - leading to a stronger willingness to pay a premium, than anthropomorphized natural-organic logos. However, hedonic (emotional/novelty) value had a greater concession effect, using anthropomorphized logos. Results like this now suggest branding managers that they can employ natural-organic and anthropomorphized brand cues, based on whether they sincerely want to emphasize utilitarian or hedonic value to consumers. (Guido et al., 2023)

Human-animal interaction (HAI) is important to social functioning and is being investigated more commonly from a public health standpoint. The literature suggests a potential association between pet ownership and depression, but the directionality of the association is unknown. Specifically, pet ownership may increase the risk of depression, or, conversely, depressed individuals may get pets to cope with depression. This study aims to support our understanding of how companion animals affect social, physical, and mental wellbeing and emphasizes the need for future studies that use longitudinal, population-based approaches to better assess the implications of HAI (Mezuk et al., 2018). Excessive purchasing, characterized by an obsession with buying resulting in intense and excessive spending, has been linked in previous studies to spending on pets. Studies have shown that consumers who engage in excessive purchasing of goods and services for themselves tend to engage in higher levels of spending on their pets by seeing them as extensions of themselves and treating them as full family members (Green & Coy, 2008; Smadar & Tena, 2023). A qualitative study provided insight into the relationship between excessive purchasing and spending on pets, particularly in how the excessive buyer viewed their pet as a key member of the family. It was also noted in the study that a national survey that examined excessive purchasing in consumers demonstrated that scores on indexes of excessive purchasing related to increased spending on pet items such as food, toys, clothing, and grooming products (James & McMellon, 2004).

E. Changing Nature of Pet Ownership and Care:

The relationship of pet ownership has shifted away from a traditional property owner relationship to a companion relationship. Approximately 63.4 million households in the United States have a dog, and 42.7 million households have a cat. Many pet owners talk about their pets as family (Kirk, 2019). Nearly 90% of pet owners, especially millennials, treat their pets' lives and health like their own lives and health, which signifies a high level of devotion to pet ownership (Lancendorfer, Atkin, & Reece, 2008). This use of reverence toward our pets shows how pertinent health care for pets is increasingly important. Pet health insurance specifically protects pet owners from the financial burden associated with unexpected costs related to any future care, as well as possibly influencing owner behaviour (e.g., increasing spending or more veterinarians' visits exist for a pet towards the end of their lives) (Jia, Yang, & Jiang, 2022). Veterinarians play an integral part in educating pet owners of the importance of health care for pets, specifically pet health insurance, for the benefit of both the owner and the veterinary practice. Pet ownership decisions, especially for dogs, warrant consideration regarding welfare implications. Various predictors of pet owners' motivation and behaviour are impacted by a pet's physical attributes (e.g., size, gender), behaviour characteristics, health, social norms/trends, owner's demographics, and prior pet ownership experience. Understanding the interrelationship among these variables is important to stakeholders concerned with pet welfare and care (Green & Coy, 2008).

F. Pet Attachment, Owner Characteristics, and Consumer Behaviour:

Dogs and cats differ in attachment level, with dogs generating comparatively higher attachment and anthropomorphism than cats. Early on, the owner's attachment anxiety and avoidance influence choice of pet, with less anxious owners being more likely to select a dog. After acquiring the pet, dog owners appear relatively secure in their attachment style, while cat owners appear to have a more avoidant style (Kirk, 2019; Smadar & Tena, 2023). These attachment differences influence consumer behaviour, with dog owners having greater brand loyalty and greater willingness to invest in pet care than cat owners, who are least likely to take their pet(s) to the veterinarian, even for multiple pets (James & McMellon, 2004; Kirk, 2019). Lastly, owning a dog encourages social connections with fellow humans potentially resulting in greater time with the dog than with humans (Green & Coy, 2008). With these attachment differences in mind, advertisement targeting differences in attachment styles may help marketers; dogs increase heuristic / promotional responses whereas cats would govern a more defensive sense of the ad (Lancendorfer et al, 2008; Jia et al, 2022). In general, dogs elicit relatively higher perceived anthropomorphism, controllability, and secure attachment style than cats, relative to reciprocity, which explains their stronger human-pet bond.

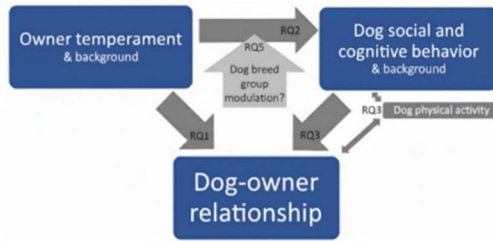


Figure 4: Model of Dynamics in Dog-Owner Relationships

Figure 4 shows the interconnected structure of owner temperament, dog social and cognitive behaviour, and the dog-owner relationship as a system. It shows links among owner's background and temperament (and other factors that are correlated with pet management (e.g., breed and exercise)) related to the strength of the human-pet bond. With respect to this article, the image has connections to the literature review since emotional attachment and shared behavioural interdependence are significant predictors of spending behaviour and loyalty in decision-making pertaining to pets and related activity.

G. Theoretical Integration

The relationship between humans and their pets can be better understood by using two theories that complement each other: Self-Determination Theory (SDT) and Attachment Theory. The consumer-brand relationship research builds on both of these theories to explain the impact of pet attachment on how much time we spend with our pets, how much we will try new pet products, and how loyal we are to particular brands of pet products.

The SDT model of motivation proposes that the basic need for autonomy, competence, and connectedness drives motivation and impacts well-being (Deci & Ryan, 2000). New research indicates that pets can act as "surrogate" or "close others" (Kanat-Maymon et al., 2025), which indicates that they not only offer support but also receive support from their owners. In terms of providing social support beyond what we typically receive from other people, pets play an important role in increasing owners' well-being. During the COVID-19 pandemic, pets, in particular, have become sources of stable social support and stress relief, contributing to fulfilling owners' sense of connection. For that reason, pet ownership is not simply an expression of love and companionship, but rather it represents a real bond between two parties that maintains an ability to support one another with their basic needs.

Attachment has been found to be the basis of the emotional bonds that create the drive for protection, caring and investing resources into relationships. Research has demonstrated that those who had a high degree of attachment to their pet(s) provided greater caregiving, experienced more distress when separated from their pet(s), and engaged in greater levels of caregiving behaviours to maintain that relationship (e.g., veterinary care, grooming, enrichment activities). In the same way, the relationship between the consumer and brand has been found to follow a similar pattern; when there is an emotional bond with a brand, consumers are willing to pay more, resist the desire to switch brands, and be more willing to try out new products or services offered by that brand.

By combining self-determination theory (SDT), attachment perspectives, and consumer relationship theories, researchers have developed a framework for understanding how pet attachment translates into behavior in the marketplace. There are three specific findings from this framework:

- **Increased Spending (RQ1):** Pet owners who view their pets as vital relationship partners tend to spend more on caregiving and shared experience products/services (including veterinary services and pet nutrition), as well as on products that allow them to have shared experiences with their pets (including toys and travel). Owners with strong emotional attachments to their pets demonstrate lower sensitivity to price and higher levels of category depth, and behave in similar ways to individuals who have strong emotional attachments to symbolic brands.
- **Increased Time and Financial Commitment (RQ2):** The time spent with pets can be considered representative of the emotional closeness the owner feels towards their pet, and this time spent provides fulfilment relatedness needs. Similar to time invested in human relationships and brand engagement, the time the owner invests in their pet acts as a relationship-maintenance behavior and is positively associated with the amount of money spent by an owner on their pet.
- **Increased Propensity for Trial and Loyalty (RQ3):** Attachment to a pet leads to greater willingness to try premium or new products that increase the quality of life for a pet; this is similar to the behaviour of

increase in loyalty towards veterinary providers, service providers, and retailers who are seen as partners in caring for a pet.

- Differences Between Segments (RQ4): There is a great deal of heterogeneity in the findings from research done on pet ownership during COVID-19 and on consumer attachment; for example, individuals who have higher psychological needs for relatedness (such as single adults, urban professionals, and empty-nesters) tend to show greater attachment to pets and are likely to spend more on a wider array of products and services than those without high relatedness needs.

Table 1. Summary of Key Literature on Pet Ownership, Attachment, and Spending Behaviour

References	Variables Studied	Methodology	Findings	Gap Identified	Future Scope
Rauktis et al., 2021 (link)	Commitment, attachment, socioeconomic status	Scale development & survey (10-item measure)	Even low-income owners maintain strong attachment and commitment to pets	No link between attachment and actual spending patterns	Extend to analyse premiumization and financial trade-offs
Gillet, Turcsán, & Kubinyi, 2025 (link)	Perceived costs vs. benefits of dog ownership	Convenience sample, structured survey	Emotional and social benefits often outweigh perceived costs of ownership	Cost-benefit analysis not tied to market spend data	Explore willingness to pay (WTP) vs. attachment intensity
Gronek & Perek-Bialas, 2022 (link)	Pet goods consumption, economic invisibility	Scoping review	Pet-related spending underreported and overlooked in economics	Lacks micro-level data on owner characteristics (attachment, routines)	Link consumption invisibility with behavioural/psychological drivers
Zilcha-Mano, Mikulincer, & Shaver, 2011 (link)	Pet attachment orientations	Psychometric scale development	Identified secure, anxious, avoidant pet-owner attachment types	No spending or market-behavioural correlation	Integrate attachment orientation with consumer behaviour models
Holland, 2019 (link)	Decision-making in dog acquisition	Literature review	Factors: lifestyle, motivations, identity influence adoption choice	Stops at acquisition; no link to long-term spend	Examine lifecycle of ownership → ongoing purchase behaviour
Cardoso, 2024 (link)	Pet characteristics, attachment, consumer choices	Dissertation, survey-based empirical analysis	Attachment levels shape product choices differently for dog vs. cat owners	Limited generalizability (single geography, student sample)	Expand cross-country, longitudinal consumer spend analysis
Damberg & Frömbing, 2022 (link)	Pet ownership & well-being (COVID-19 context)	Quantitative survey, regression models	Pet owners reported higher subjective well-being during pandemic	Well-being studied, but no spending implications	Study link between emotional reliance and premium spend on pets

This table provides a synopsis of the significant research studies dealing with the relationship between pet ownership behaviours and consumer behaviour. The studies presented include key authors, variables investigated, methodology, and major findings across themes including market size, emotional attachment, time spent, and spending behaviour. Gaps in the literature suggest minimal research integrated psychological and behavioural factors with financial spending data. Directions for future research highlighted the need for a holistic model that incorporates emotional attachment, time spent, and spending behaviour, which may enhance understanding of pet owners' decision-making behaviour and physical and mental well-being.

Research Objectives:

This project primarily aims to research the multi-dimensional connection between pet owners, their pet companionship, moderate attitudes, and how they are invested. In particular, the objective is to measure the relationship between attachment and spend for working professionals, as well as assess how time commitment impacts financial commitment towards pet care. In addition, we will evaluate if high attachment to pets leads to increases in trial and loyalty towards premium and new products, giving us comparable consumer willingness and retention profiles. Finally, we will identify demographic and ownership audiences (age, income, pet type) that are

more likely to have higher spending or adoption frequencies, which will considerably support pet care businesses to build more specific product innovation, branding strategy, and target consumers.

Research Questions:

- RQ1. How does pet-attachment relate to overall and category-wise spend?
- RQ2. How does time commitment relate to spend?
- RQ3. Does higher attachment correlate with greater trial propensity and brand loyalty?
- RQ4. Which demographic/ownership segments exhibit systematically higher spend or adoption?

Hypothesis:

- H1: There is a positive association between pet-attachment index and monthly pet spending.
- H2: There is a positive association between time-commitment index and monthly pet spending.
- H3: There is a positive association between pet-attachment index and behavioural intention to try premium/novel products.
- H4: There is a positive association between pet-attachment index and brand loyalty.
- H5: There is a positive association between pet-attachment index and time-commitment index.
- (Exploratory) H6: The associations in H1 - H4 are stronger in higher income segments.

III. Research Methodology

This study has been designed to use purposive sample-the individuals surveyed are all pet owners, as they provide an excellent source of experiential, behavioral and financial information about those areas of purpose at which this research is aimed. It is also apparent that the constructs of pet spending, time spent with pets and attachment are best measured by having the subjects participate as active pet owners, and therefore any survey that enrolled pet owners that were not active, would yield outdated or insignificant data and consequently, weaken the construct validity. Thus, a purposive sampling procedure will allow every participant to make a valid contribution to the research, by being an active pet owner within 12 months prior to entering the research.

As the demographics of pet owners are diverse and widespread, the study also uses convenience and snowball sampling techniques to allow the researchers to reach participants representative of various demographic groups (i.e., students, working professionals, households with multiple pets). The types of research methodologies (i.e., purposive sampling) and sample size (non-probability sampling) are very common for behavioral studies where the target population is both specifically defined and diverse (Etikan, Musa & Alkassim, 2016). In addition, prior behavioral studies have used purposive and convenience sampling techniques to explore attachment to pets, the degree of attachment, and the amount of money spent on pets (Dotson & Hyatt, 2008; Holbrook & Woodside, 2008; Zasloff, 1996).

This research uses a cross-sectional survey design and was performed online with Google forms. The target population is working professionals who are primary or joint decision-makers for pet-related purchases. The authors followed accepted guidelines for correlation studies and aimed for a minimum sample size of 200 respondents, supplementing to allow for analysis of subgroups (segments) too. Key study variables were measured through validated scales and self-reported metrics. Composite indices were calculated as the mean of multiple items, unless otherwise specified.

Table 2. Summary of Variables, Measure Type and Scale used to Test Metrics.

Variable	Measure Type	Scale	Example Item/Metric
Attachment (ATT)	Likert (6-8 items)	1-5	"My pet is like family."
Time Commitment (TIME)	Hours + Likert (4 items)	Numeric + 1-5	Hours per week; "I plan vet visits on time."
Expenditure (SPEND)	Numeric (₹/month + categories)	Continuous	"Approximate monthly pet spend."
Trial Propensity (TRIAL)	Likert (3-4 items)	1-5	"I like trying new pet products."
Brand Loyalty (LOYAL)	Likert (3-4 items)	1-5	"I repurchase the same pet brand regularly."
Controls	Demographics, segments	Categorical	Income band, age, gender, household size, pet type, etc.

- Attachment Index (ATT): Average of 6-8 items on the Likert scale (e.g., emotional closeness, perceived family member status).
- Time Commitment Index (TIME): Combination of z-standardized objective hours/week and the four Likert items (e.g., planning, enrichment, veterinary diligence).
- Monthly spending total (SPEND): Total monthly spending (₹) validated by the categorical breakdown (food, health care, grooming, services).

- Trial Propensity (TRIAL): Three items that are about willingness to try new products and willingness to pay more for new and better products.
- Brand Loyalty (LOYAL): Four items on intention to repeat purchase, resistance to switching to a different brand, and advocacy for the brand.
- Controls: income, age, gender, house size, city tier, pet type, and health.

The questionnaire was organized into sections:

- Section A: Eligibility screening and informed consent.
- Section B: Pet and owner profile (type, age, health, decision-making role).
- Section C: Demographics (income, age, gender, city tier, household size).
- Section D–H: Measurement of core constructs—time commitment, expenditure, attachment, trial propensity, and loyalty.
- Section I: Diagnostic drivers (e.g., insurance, expenditure motivations, open comments).

All Likert items used a 5-point scale (1 = strongly disagree, 5 = strongly agree). Reverse-coded items were adjusted prior to index construction. The research process was conducted in a predetermined and step-by-step process to aid clarity and rigor. First, we constructed a survey to capture demographic information, details on pet ownership, and important constructs such as attachment, effort, expense, trial propensity, and loyalty. Then the study included data collection through an online questionnaire with working professionals engaged in pet-related purchasing decisions. Next, we processed the responses by way of index construction where composites were constructed for certain constructs (the Attachment Index, Time Index, etc.) to display reliability and for comparison purposes. Indices were then analysed using Pearson correlation analysis to explore how constructs correlate with each other. With these results in mind, segmentation and insights were developed, by exploring patterns in income, age, and other demographic groups. Before starting the analysis, composite indices were created and tested for internal consistency. Reliability was calculated using Cronbach's α (criterion $\geq .70$) and an item was deleted if removing it improved α , without sacrificing conceptual validity. Continuous measures (e.g., hours, money spent) were standardized, if necessary, to make comparisons easier.

In primary analysis, correlations of Pearson product-moment were used to assess relationships between Attachment, Time Commitment, Expenditure, Trial Propensity, and Loyalty among participants. When checking assumptions, visual inspections of histograms and Q-Q plots were used to assess normality and those scores, along with scatterplots, were checked for linearity and to detect outliers ($|z| > 3$). If there were doubts about normality assumptions, Spearman's ρ was reported for robustness. The following notable correlations were assessed:

- Attachment and Expenditure
- Time Commitment and Expenditure
- Attachment and Trial Propensity
- Attachment and Loyalty
- Attachment and Time Commitment

Effect sizes were defined as small $\approx .10$, medium $\approx .30$, large $\approx .50$ using Cohen's benchmarks. Segment-level analysis was performed across income and age strata, and Fisher's r -to- z transformations were used to assess the strength of differences in the correlations. Participants were informed about the purpose of the study, confidentiality measures, and their right to withdraw at any time. Informed consent was required to participate. No identifying data were collected, and participants' responses were de-identified. The methodology has several limitations, including reliance on self-reported measures, cross-sectional design, and non-probability sampling. Limitations, such as self-reported aspects, preclude any causal inference and generalizability. Future research should seek to take advantages of longitudinal or experimental designs to confirm findings.

IV. Results and discussions

Inferential analysis

Inferential analysis has been employed to generate the logical inferences of the samples. Reliability Analysis has been completed to investigate the internal consistency of the variables included in the research sample of 100 [$n=100$]. The reliability analysis is an efficient measure to test the internal consistency of the variables included in the research study. Reliability analysis ensures a high degree of validity while placing greater emphasis on avoiding an upper limit. Thus, a measure that is very unreliable will be nonvalid as well. A measure of internal consistency that is close to even 1 indicates that one can infer that the variables have highly internal consistency and are also appropriate for a factor analysis.

Table 3. Cronbach’s Alpha (α) for Pet-attachment Index

Item description	Cronbach’s Alpha (α)
I feel emotionally attached to my pet and consider them part of my family	0.822
My spending on my pet reflects the depth of my bond, emphasizing the importance of prioritizing my pet’s overall well-being in alignment with my own	0.818
I often prioritize my pet’s needs over my personal discretionary expenses	0.835
I am willing to allocate a higher share of my budget for my pet than for non-essential personal items	0.819
I spend more on quality pet care products which offer genuine product guarantees even if they are expensive	0.813
Overall Cronbach’s Alpha (α)	0.821

Inference: From Table 3, it is noted that the value of Alpha (α) is 0.821. A value of Cronbach’s Alpha (α) of more than 0.8 means we can conclude that the survey items have high internal consistency for Pet-attachment Index.

Table 4: Cronbach’s Alpha (α) for Time-commitment Index

Item Description	Cronbach’s Alpha (α)
I spend significant daily time caring for my pet (feeding, play, walks, etc.	0.802
More time spent with my pet increases my willingness to invest in their well-being	0.818
Spending time with my pet is therapeutic, and I show my gratitude toward my pet, who acts as a gateway to healing by investing in their grooming and travel needs	0.818
I dedicate time to researching better products/services for my pet	0.821
My time commitment encourages me to purchase more products or services to enhance my pet’s lifestyle	0.823
Overall Cronbach’s Alpha (α)	0.816

Inference: According to Table 4, the Alpha (α) value is 0.816. Since Cronbach’s Alpha (α) is greater than 0.8, it can be said that the variables had high internal consistency for the Time-commitment Index.

Table 5: Cronbach’s Alpha (α) for Trial Propensity for Premium/Novel Products

Item description	Cronbach’s Alpha (α)
Because of my strong attachment, I am more willing to try premium or innovative pet products	0.852
I prefer to choose brands I trust, guided by their logos and quality assurance standards	0.824
By prioritizing excellent customer service and loyalty programs in pet care, brands can enhance my loyalty and increase my long-term spending with them	0.837
I actively recommend brands I am loyal to when discussing pet care with others	0.845
I am more likely to repurchase from the same brand to ensure my pet’s well-being	0.828
Overall Cronbach’s Alpha (α)	0.837

Inference: As observed in Table 5, the value of Alpha (α) is 0.837. Since the value of Cronbach’s Alpha (α) is greater than 0.8, we can conclude that the variables are having good/ high internal consistency for Trial Propensity for Premium/ Novel Products.

Table 6: Cronbach’s Alpha (α) for Demographic/Ownership Segments and Spending/Adoption

Item description	Cronbach’s Alpha (α)
My income level influences the extent of my spending on pet care	0.847
My stage of life (age/family structure) affects the products and services I choose for my pet	0.811
My pet’s type/size significantly impacts my spending pattern	0.842
The city/town I live in influences the availability and spending on pet products/services	0.821
I am open to adopting or purchasing new products/services for my pet based on my demographic circumstances	0.847
Overall Cronbach’s Alpha (α)	0.833

Inference: Table 6 shows that the value of Alpha (α) is 0.833. The value of Cronbach’s Alpha (α) is above 0.8 so we can determine that the variables have high internal consistency for both Demographic/Ownership Segments and Spending/Adoption.

Table 7: Summary of Reliability Statistics for Unlocking Business Insights: The Link Between the Pet Owner Spending, Time Commitment and Attachment

Variables	Cronbach's Alpha (α)
Pet-attachment Index	0.821
Time-commitment Index	0.816
Trial Propensity for Premium/Novel Products	0.837
Demographic/Ownership Segments and Spending/Adoption	0.833

Inference: From the summary of reliability, it can be inferred that the value of Cronbach's Alpha (α) was identified to be greater than 0.8 indicating internal consistency stabilised for all of the variables includes behaviourally based Pet-attachment Index, Time-commitment Index, Trial Propensity behaviour for Premium/Novel Products Index, Demographic/Ownership Segments behaviour and Spending/Adoption behaviour.

Hypothesis testing

Pearson Correlation is a two-variable analysis used to assess the extent of the connection among the variables. It also determines the strength and the relationship between variables. It is indicated by r called the Correlation Coefficient. The level of ranges varies from +1 to -1. [+1 indicates positive correlation -1 indicates negative correlation]. If the levels of are between [0.75 to 1 (it is high association) 0.5 to 0.74 (moderate association) less than 0.5 (low association).

The following hypothesis is tested by using Pearson Correlation:

Hypothesis 1

Null Hypothesis (H1₀): Pet-attachment index is not positively correlated with monthly pet expenditure

Alternative Hypothesis(H1_A): Pet-attachment index is positively correlated with monthly pet expenditure.

Table 8: Pearson Rank Correlation for [Pet-attachment Index * Monthly Pet Expenditure]

Description	Pet-attachment Index	Monthly Pet Expenditure	N	Sig. Level
Pet-attachment Index	1.000	0.546	100	.014
Monthly Pet Expenditure	0.546	1.000	100	.014

Inference: The significance level below 5% indicates that the null hypothesis can be rejected. It can be concluded that the Pet-attachment index is related to monthly pet expenditure in a positive direction. The strength of association measured by the value of r [Pearson Correlation Coefficient] for the Pet-attachment Index and Monthly Pet Expenditure is between (>0.5 to 0.74). It can also be analysed that the value rd = 0.546. This indicates that there is a positive moderate association of Pet-attachment Index and Monthly Pet Expenditure.

Hypothesis 2

Null Hypothesis (H2₀): Time-commitment index is not positively correlated with monthly pet expenditure

Alternative Hypothesis(H2_A): Time-commitment index is positively correlated with monthly pet expenditure

Table 9: Pearson Rank Correlation for [Time-commitment Index * Trial Propensity for Premium/Novel Products

Description	Time-commitment Index	Monthly Pet Expenditure	N	Sig. Level
Time-commitment Index	1.000	0.553	100	.011
Monthly Pet Expenditure	0.553	1.000	100	.011

Inference: A p-value of under 5% indicates previous support for rejection of null hypothesis. In this case, "Time-commitment Index" is positively associated with "Monthly Pet Expenditure." The r value for Time-commitment Index and Monthly Pet Expenditure, extracted from correlation analysis, falls within (>0.5 to 0.74), evidenced by r = 0.553. Interpretation of these statistics indicates a positive moderate association of Time-commitment Index with Monthly Pet Expenditure.

Hypothesis 3

Null Hypothesis (H3₀): Pet-attachment index is not positively correlated with trial propensity for premium/novel products

Alternative Hypothesis(H3_A): Pet-attachment index is positively correlated with trial propensity for premium/novel products

Table 10: Pearson Rank Correlation for [Pet-attachment Index * Trial Propensity for Premium/Novel Products]

Description	Pet-attachment Index	Trial Propensity for Premium/Novel Products	N	Sig. Level
Pet-attachment Index	1.000	0.614	100	<.001
Trial Propensity for Premium/Novel Products	0.614	1.000	100	<.001

Inference: The significance level less than 5% reveals that the null hypothesis can be rejected. It can be revealed that Pet-attachment index is positively correlated with trial propensity for premium/novel products. The value of r [Pearson Correlation Coefficient] found to be between (>0.5 to 0.74) for Pet-attachment Index and Trial Propensity for Premium/Novel Products. It can be further analysed that the value of r found to be 0.614. It indicates that there is a positive moderate association of Pet-attachment index with Trial Propensity for Premium/Novel Products.

Hypothesis 4

Null Hypothesis (H4₀): Pet-attachment index is not positively correlated with brand loyalty

Alternative Hypothesis(H4_A): Pet-attachment index is positively correlated with brand loyalty

Table 11: Pearson Rank Correlation for [Pet-attachment Index * Brand Loyalty]

Description	Pet-attachment Index	Brand Loyalty	N	Sig. Level
Pet-attachment Index	1.000	0.596	100	<.001
Brand Loyalty	0.596	1.000	100	<.001

Inference: The significance level less than 5% reveals that the null hypothesis can be rejected. It can be revealed that Pet-attachment index is positively correlated with Brand Loyalty. The value of r [Pearson Correlation Coefficient] found to be between (>0.5 to 0.74) for Pet-attachment Index and Brand Loyalty. It can be further analysed that the value of r found to be 0.596. It indicates that there is a positive moderate association of Pet-attachment index with Brand Loyalty.

Hypothesis 5

Null Hypothesis (H5₀): Pet-attachment index is not positively correlated with brand loyalty

Alternative Hypothesis(H5_A): Pet-attachment index is positively correlated with brand loyalty.

Table 12: Pearson Rank Correlation for [Pet-attachment Index * Time-commitment Index]

Description	Pet-attachment Index	Time-commitment Index	N	Sig. Level
Pet-attachment Index	1.000	0.783	100	<.001
Time-commitment Index	0.783	1.000	100	<.001

Inference: A significance level of less than 5%, shows that the null hypothesis can be rejected. It can also be established that Pet-attachment index has a positive correlation with brand loyalty. The value of r [Pearson Correlation Coefficient] obtained for Pet-attachment Index and Time-commitment Index was between (0.74 to 1). It can also be stated that the value of r was 0.783 and indicates that there is a positive high association of Pet-attachment index with Time-commitment Index.

According to the current research, the positive association between pet-owner attachment, time commitment, and discretionary spending is a key relationship that has significant, theoretical implications. Pets, when compared with their non-attached counterparts, have been found to encourage pet owners to invest significantly more of their available funds in all categories of expenditures, including grooming, nutrition, accessories, healthcare, and experiential pet services than those pet owners with a lesser emotional attachment to their pets. This finding is consistent with several principles of Attachment Theory, which proposes that stronger emotional bonds between people will lead to enhanced nurturing, protective, and investment-based behaviours. The emotional or psychological attachment between a pet owner and their pet can also be viewed as having similar effects upon the caregiving dynamics between humans. The relationship between a pet owner and their pet will result in increased time spent by the pet owner on the pet owner's daily routines, enrichment activities, and emotional connection and interaction with the pet, all of which become immediately assessable in the monetary form. Additionally, based upon Consumer Behaviour Theory, consumers may react differently to a product or service depending upon how

strongly they connect emotionally with a product or service to create a value-based price that they will not be negatively impacted by sales promotions, allowing them to purchase the highest quality, customisation and wellness-oriented products.

In addition, Behavioral Economics enhance the ability to interpret results due to how emotional attachment influences the decision-making process. As mentioned above (see TEP study), pet owners who treat their pets as family members engage in "identity-linked consumption" whereby spending is reflective of one's value system as opposed to rationally based on financial options available. Therefore, the relationship between time spent on pets (walking, training, grooming, or as a companion) serves as a predictor and an additional assurance of a greater financial commitment toward pet care. The simultaneous increase of time and monetary investment indicates a loop of reinforcement; as emotional attachments increase, so does the amount of money required to care for that pet. The research findings demonstrate that pet ownership is an overarching product of people developing financial behaviours because of their psychological connections to their pets and that each component of that behaviour creates an interrelated system between the attachment style to the pet, emotional satisfaction and the integration of pets into their lives.

V. Conclusion And Future Scope

This research investigated the relationship between pet attachment, time spent with the pet, spending on pet products, trial behaviour, and brand loyalty among working professionals responsible for pet product purchase. A quantitative, cross-sectional survey design was employed in a structured format. The study confirmed internal consistency between the constructs through analysis (Cronbach's $\alpha > 0.8$). Correlation found that attachment to the pet has a significant relationship to spending, trial behaviour, and brand loyalty. This supports that the strong emotional bond and incidental "talking" time spent with the pet, has a direct effect on owners' spending behaviour and brand loyalty. Overall, the findings add to the literature discussing the psychological and behavioural characteristics of the human-pet relationship, as it relates to consumer decision-making within the evolving pet economy.

Future studies might build off this research with a longitudinal approach to see behavioural trends over time and a larger sample of segments to include more demographic and geographic strata. Additionally, exploring pet care affect within the digital space, consumer interest in sustainability, and significant lifestyle changes due to COVID-19 as avenues of future research might lead to a deeper understanding of changes in emotional attachment to pet care products and consumer loyalty.

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