

A Study on Extent of Satisfaction Experienced with Regards to Attributes of Pet Food

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ABSTRACT

Pet owners with the highest human traits scores place most importance on the health and nutrition, quality, freshness, and taste of pet food, and also value the taste and variety in their pets' diets. Generally, pet owners buy meal for their pets, they mainly evaluate pet meal products as said by a mixture of genuine and outer product attributes. Internal product attributes include the physical aspects of the product, such as chemical composition, aroma and nutritional properties whereas, external attributes are narrated to the product itself, but physically are not a component of it. Hence, the present study was conducted with the objective to find out the extent of satisfaction experienced by the pet owners with regards to attributes of pet food and to collect information on selected aspects like age of pet, frequency of buying pet food, amount of money spent on buying pet food and preferences given for type of pet food. Descriptive research design was adopted for the present study with a sample size of 120 pet owners. The data was collected through questionnaire which consisted of a scale on extent of satisfaction experienced with regards to attributes of pet food. The major findings revealed that brand, nutritional considerations and quality of the product were the attributes which revealed greatest satisfaction amongst the pet owners.

Key Words : Pet Owners Satisfaction, Pet Food, Pet Food Attribute, Pet Owners

INTRODUCTION

Pet food has become the main source of nutrition supplements and is used as a way of safeguarding pets. Feeding pets is considered a key moment of the day among pet owners, as it strengthens the bond between the owner and their animal (Tobie *et al.*, 2015). In order to satisfy different pets and owner's requirements, the pet food industry offers a range of products. Consequently, pet food production has become a competitive and economically significant part of the food processing industry (Di Donfrancesco *et al.*, 2012). According to the pet owner's evaluations, pet dogs have more variable preferences than cats (Haupt and Smith, 1981). From the pet owner's point of view, maintaining health and providing optimal nutritional products is an important

component of responsible pet ownership (Bontempo, 2005). As a result, dogs and cats are living longer and better fed than ever before (Reid and Peterson, 2000).

The global pet food market remains active and dynamic. Commercial pet food can be categorised into three basic forms: dry, semi-moist, and moist or canned (Collins, 2010). These different categorizations are based on the water content of the food, with dry foods containing usually less than 11% water, semi-moist foods containing 25 to 35% water, and moist or canned food containing 60 to 87% water (Zicker, 2008). According to Koppel (2014) dry dog food, dry cat food, wet cat food, and dog treats occupy the biggest share of the total pet food sale. The pet food industry continues to grow as a result of high disposable income and an increase in the popularity of pet ownership among millennials (Hobbs *et al.*, 2018). In

the developed countries the pet industry is comprised of three pet food products, pet breeding, pet veterinary care, and other pet-related services. Among them, the pet food industry contributes about 50% of the overall value (Xiao *et al.*, 2021). Most commercial pet foods are formulated based on the nutritional composition of ingredients available in public databases (Morelli *et al.*, 2021). Ingredient composition and pet food quality are key for many pet owners when choosing between raw, wet, or dry food (Montegiove *et al.*, 2021), and they perceive certain ingredients as undesirable or unsafe (Sanderson *et al.*, 2021). Ingredients such as wheat and corn may be perceived as low quality or fillers by some pet owners (Vinassa *et al.*, 2020), although these claims are not scientifically based (Corsato *et al.*, 2021). However, they may still appreciate dry pet foods with cereals due to affordability and convenience (Park *et al.*, 2021).

Food characteristics such as price, ingredients, and quality have been identified by several studies as important considerations for pet food purchasers. Ingredients have been identified in multiple studies to be the most important factor for most pet owners when selecting a food for their pets (Boya *et al.*, 2015). It appears that Pet owners prefer lower priced pet food, but value natural and organic ingredients (Simonsen *et al.*, 2014). While most pet owners feed commercial pet food to their pets, many feed their pets other foods, such as home-prepared foods, table scraps, and raw meat-based diets. This may be in part due to an apparently growing perception that commercial pet foods may not be wholesome, nutritious, and safe, and that other sources of food may be more natural and more nutritious (Laflamme *et al.*, 2008).

The trend of humanization and premiumization of pet food are rapidly growing up in market. Pet owners look for healthy and dietary products to treat their pet regarding higher awareness that feed high quality pet foods that perceive positive health benefit to their pets. According to Packaged Facts report, 64 per cent of dog owner focus on safety in dog foods and consider about the organic dog foods that are safer than regular dog foods. In addition, some attributes of human food which are highly beneficial for pet's health such as the ingredient of chai, kale and quinoa which are transmitted into pet foods. The pet owners are interested in the pet food that are labelled as natural and enhance the growth in sales. However, the organic pet foods relatively accounted for small portion in pet food market. These products will be

sold higher if the market can provide sufficiently natural ingredient and keep the price lower in line⁽¹⁾.

Pet Owner Satisfaction regards to attributes of pet food:

The 'Pet Economy' is a rapidly growing industry, which has changed the perception of companion animals. This trend has led to the re-evaluation of products and marketing strategies to maximize the potential profits of the company. Pet food products differentiation is based on a variety of unique properties like colour, texture, odour, shape and external properties such as brand, country of origin, image is now being used⁽²⁾. The pet food shop owners need to be aware of pet owners' satisfaction associated with different pet food attributes to accommodate increasingly specialized pet owner's needs⁽³⁾. Pet owner satisfaction is often influenced by various attributes associated with pet ownership. From pet food quality to level of veterinary care, every attribute plays an important role in determining how satisfied pet owners are with pet food. A common theme among pet owners is their level of satisfaction with various attributes related to pet ownership are as follows:

Brand Reputation:

Brand reputation of food products helps pet owners' make decisions, especially when a special signal is lacking⁽⁴⁾. Pet owners prefer brands that have a direct relationship with and a good reputation⁽⁵⁾, which directly concern values and are important to them. Positive or negative guarantees for food brands can affect brand reputation, which affects pet owners' attitudes toward brands and products related to the brand⁽⁶⁾.

Price Fairness:

Price fairness is a major factor that affects product impression⁽⁷⁾. Pet owners' assessment of whether the offer price of the seller's products is justifiable, acceptable, or reasonable. In particular, customers tend to make better judgments about selling costs, transfer prices, and competitive prices when evaluating price fairness by referring to a variety of products.

Packaging Design:

Packaging plays an important role in attracting pet owners' attention. Packaging provides food companies with a final opportunity to persuade pet owners to buy products just before they choose them in the context of

current food retailing. Therefore, regarding purchasing a product, all packaging elements must be combined to attract pet owners⁽⁸⁾. Food packaging can affect pet owners' purchasing attitude and give rise to pet owners' expectation⁽⁹⁾.

Product Healthiness:

Pet food healthiness is important in defining Pet owners' acceptance of food⁽¹⁰⁾, which suggests that food healthiness affects food intake as well as attitude toward food. There is strong link between people perception and product healthiness and their willingness to purchase these products has a sign and positive impact on pet owners' behaviour⁽¹¹⁾. Pet owners' often have strong feelings about their health problems and health benefits has a significant impact on purchase intention⁽¹²⁾.

Another important attribute of pet food that can impact pet owner satisfaction is the ingredient sources and transparency of the food. Pet owners are increasingly interested in knowing where the ingredients in their pet's food come from and whether they are of high quality. They may be concerned about the use of fillers, artificial preservatives, and other additives in their pet's food. In order to meet the satisfaction of pet owners, many pet food manufacturers are making efforts to be more transparent about the ingredients they use, providing detailed information about sourcing, processing, and quality control. Some manufacturers even use human-grade ingredients which includes the quality of ingredients sourced, how and where the food is cooked in their pet food to appeal to pet owners who want the highest quality food for their pets. By providing clear and transparent information about ingredient sources and quality, pet food manufacturers can build trust and loyalty among pet owners who are looking for the best possible food for their beloved pets.

Several attributes like Availability and convenience are important outside attributes of pet food that can impact pet owner satisfaction. Pet food should be readily available in stores, either in physical locations or online, and easy to purchase and transport. Convenience can also be enhanced through packaging and product design. Pet food that is packaged in easy-to-open containers, with clear feeding instructions and measuring tools, can make feeding pets more convenient for pet owners. Single-serve or pre-portioned packaging can also make feeding more convenient for pet owners who are on-the-go or have busy schedules. By addressing the needs

of pet owners for availability and convenience, pet food manufacturers can increase customer satisfaction and loyalty, leading to more repeat purchases and positive word-of-mouth recommendations

The texture and shape of pet food can have a significant impact on pet owner satisfaction and health. Different pets may have different preferences when it comes to the texture and shape of their food, and it's important to find a food that they enjoy and can easily digest. Some pets prefer soft or wet food, while others prefer crunchy or dry food. Soft or wet food can be easier to digest for pets with dental problems or older pets who may have difficulty chewing. However, soft or wet food can also spoil more quickly and may require refrigeration, which can be less convenient for pet owners. Crunchy or dry food can help to clean a pet's teeth as they chew, promoting dental health. However, some pets may have difficulty chewing crunchy food, or may not find it as palatable as wet food. The shape of different pet food is also a major factor contributing to pet owners' satisfaction.

The shape of the kibble or treat can also impact how easily pets can eat and digest their food. Smaller kibble or treats may be easier for smaller pets to eat, while larger kibble may be more appropriate for larger pets. Some kibble may be shaped specifically to promote dental health, while others may be designed to be more easily digestible. Pet owners should consider their pet's individual needs and preferences, as well as any potential dental or digestive issues, when selecting a food with the appropriate texture and shape.

The taste and colour of pet food are two external attributes that can influence a pet's willingness to eat the food. While pets don't necessarily have the same appreciation for aesthetics as humans, the appearance and taste of their food can still play a role in their overall satisfaction with the food.

The taste of pet food is influenced by the ingredients used and the processing method employed. High-quality ingredients and gentle processing methods can help to preserve the natural flavours of the food and make it more appealing to pets. Some pet food manufacturers also add flavour enhancers or natural flavours to their products to make them more palatable.

The colour of pet food can also impact a pet's willingness to eat the food. While pets may not be able to distinguish between different colours in the same way that humans can, the colour of their food can still signal

to them that it is safe and appealing to eat. Many pet foods are formulated to mimic the natural colours of the ingredients used, such as the brown colour of meat or the green colour of vegetables.

Objectives:

1. To collect information on selected aspects like age of pet, frequency of buying pet food, amount of money spent on buying pet food and preferences given for type of pet food.
2. To assess the extent of satisfaction experienced by the respondents with regards to attributes of pet food products.

METHODOLOGY

The research design for the present investigation was descriptive in nature. The sample for the present study were 120 pet owners who bought pet food products. Purposive sampling technique was used for the collecting the data. For the present study questionnaire was developed. The tool consisted of 16 statements relating to extent of satisfaction experienced with regards to attributes of pet food and it was analysed in terms of satisfied, Neutral and dissatisfied scores obtained on entire scale. Hence minimum score was 16 and maximum was 48. High scores revealed high extent of satisfaction experienced with regards to attributes of pet food and *vice versa*.

RESULTS AND DISCUSSION

The findings of the study obtained through analysis of the data supported discussion and interpretation are presented here.

Age of pet (in years):

The data revealed that the age of the pet ranged between 1-14 years with the mean age 4.30 years. It was found that more than three-fourth (76.7%) of the pet were in the age group of 1-5 years. Less than one-fifth (19.2%) of the pet were in the age group of 6-10

Sr. No.	Age of Pet (in years)	Respondents (n=120)	
		f	%
1.	1-5 years	92	76.7
2.	6-10 years	23	19.2
3.	11-14 years	5	4.1

years. 4.1 per cent of the pet were in the age group of 11-14 years (Table 1).

Frequency of Buying Pet Food:

It was observed that the data in Table 2 reflects that less than one-half (46.7%) of the respondents bought pet food once a month, less than one-fifth (16.7%) of the respondents bought pet food once every two months, 12.5 per cent of the respondents bought pet food twice a month and 10.8 per cent of the respondents bought pet food once a week. It was found that 7 per cent of the respondents bought pet food more than three months, 5 per cent of the respondents bought pet food once a fortnight and 4 per cent of the respondents bought pet food once every three months.

Sr. No.	Frequency of Buying Pet Food	Respondents (n=120)	
		f	%
1.	Once a week	13	10.8
2.	Once a fortnight	5	4.2
3.	Twice a month	15	12.5
4.	Once a month	56	46.7
5.	Once every two months	20	16.7
6.	Once every three months	4	3.3
7.	More than three months	7	5.8

Amount of money spent for Buying Pet Food:

It was found that more than one-third (40%) of the respondents had spent money equal to or above Rs. 2001. Furthermore, one-third (33.3%) of the respondents had spent money below or equal to Rs. 1500 and slightly more than one-fifth (26.7%) of the respondents spent money between Rs. 1501 to 2000 Rs.

Sr. No.	Money spent for Buying Pet Food	Respondents (n=120)	
		f	%
1.	≤ Rs. 1500	40	33.3
2.	Rs. 1501- Rs. 2000	32	26.7
3.	≥ Rs. 2001	48	40

Preference given for type of Pet food:

The data revealed that more than one-half (57.5%) of the respondents preferred dry food and less than one-half (42.5%) of the respondents preferred combination of dry and wet.

Table 4 : Frequency and percentage distribution of the respondents according to their preferences of type of Pet food

Sr. No.	Type of Pet food	Respondents (n=120)	
		f	%
1.	Dry	69	57.5
2.	Wet	51	42.5
3.	Combination of dry and wet	51	42.5

*Multiple responses

Extent of Satisfaction of Experienced with Regards to Attributes of Pet food:

The weighted mean score computed for each attribute of pet food revealed that score for “brand of the product”, “nutritional considerations” and “quality of the food”, were found to be highest among all the attributes. The attributes such as “type of pet food available in terms of water content”, “odor of the food”, “shape of the food”, scored the lowest. The overall weighted mean on the entire scale was 4.04.

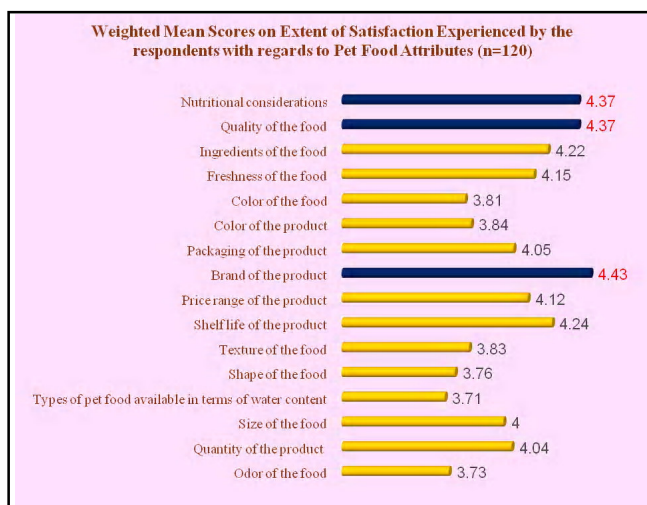


Fig. 1 : Weighted Mean Scores of Pet Food Attributes of the Respondents according to their Extent of satisfaction

Conclusion :

The present research was undertaken with objectives to collect information on selected aspects like age of pet, frequency of buying pet food, amount of money spent on buying pet food and preferences given for type of pet food and to assess the extent of satisfaction experienced by the respondents with regards to attributes of pet food products. More than one-half (57.5%) of the respondents preferred dry food. The weighted mean computed for each attribute of pet food revealed that

score for “brand of the product”, “nutritional considerations”, “quality of the food”, were found to be highest among all the attributes. The attributes such as “type of pet food available in terms of water content”, “odor of the food”, “shape of the food”, scored the lowest. The overall weighted mean on the entire scale was 4.04. Hence, most of the males were well educated and were highly satisfied with the attributes.

REFERENCES

Bontempo, V. (2005). Nutrition and health of dogs and cats: evolution of pet food. *Veterinary Research Communications*, **29**(2) : 45-50.

Boya, U.O., Dotson, M.J. and Hyatt, E.M. (2015). A comparison of dog food choice criteria across dog owner segments: An exploratory study. *Internat. J. Consum. Stud.*, **39** : 74–82. <https://doi.org/10.1111/ijcs.12145>

Collings, G (2010). Clarifying categories and claims in pet food. All about feed. <https://www.allaboutfeed.net/home/clarifying-categories-and-claims-in-pet-food/>

Corsato Alvarenga, I., Dainton, A.N. and Aldrich, C.G (2021). A review: Nutrition and process attributes of corn in pet foods. *Crit. Rev. Food Sci. Nutr.*, 1–10. <https://doi.org/10.1080/10408398.2021.1931020>

Di Donfrancesco, B., Koppel, K. and Chambers, E. (2012). An initial lexicon for sensory properties of Dry food. *J. Sensory Studies*, **27**(6) : 498-510. <https://doi.org/10.1111/joss.12017>

Dogs and Cats. *Vet. Cln. Small Anim. Pract.* 2021, **51**, 529–550. <https://doi.org/10.1016/j.cvsm.2021.01.009>

Houpt, Katherine A. and Sharon L. Smith (1981). Taste preferences and their relation to obesity in dogs and cats. *The Canadian Veterinary J.*, **22** (4): 77.

Hobbs, L. and Shanoyan, A. (2018). Analysis of Consumer perception of product attributes in pet food: implications for marketing and Brand strategy. Annual Meeting, August 5-7, Washington, D.C. 274070, Agricultural and Applied Economics Association.

Koppel, K. (2014). Sensory analysis of pet foods. *J. Sci. Food & Agric.*, **94**(11) : 2148-2153. <https://doi.org/10.1002/jsfa.6597>

Laflamme, D.P., Abood, S.K., Fascetti, A.J. et al. (2008). Pet feeding practices of dog and cat owners in the United States and Australia. *J. Am. Vet. Med. Assoc.*, **232** : 687–694. <https://doi.org/10.2460/javma.232.5.687>

Montegiove, N., Pellegrino, R.M., Emiliani, C., Pellegrino, A.

- and Leonardi, L. (2021). An Alternative Approach to Evaluate the Quality of Protein-Based Raw Materials for Dry Pet Food. *Animals*, **11** : 458. [CrossRef]
- Morelli, G., Stefanutti, D. and Ricci, R. (2021). A survey among dog and cat owner pet food storage and preservation in households. *11,273*.<https://www.mdpi.com/2076-2615/11/2/273#>
- Park, M.E. and Um, J.B. (2021). Consumer Characteristics in Terms of Pet Food Selection Attributes. *J. Agric. Ext. Community Dev.*, **28** :85–98.
- Reid, S.W. and Peterson, M.M. (2000). Methods of estimating canine longevity. *The Veterinary Record*, **147**(22) : 630-631.
- Sanderson, S.L. Pros and Cons of Commercial Pet Foods (Including Grain/Grain Free) for Vinassa, M.; Vergnano, D.; Valle, E.; Giribaldi, M.; Nery, J.; Prola, L. and Schiavone, A (2020). Profiling Italian cat and dog owners' perception of pet food quality and their purchasing habits. *BMC Vet. Res.*, **16** : 1–10.<https://doi.org/10.1186/s12917-020-02357-9>.
- Simonsen, J.E., Fassenko, G.M., Lillywhite, J.M. (2014). The value-added dog food market: Do dog owners prefer natural or organic dog foods? *J. Ag. Sci.*, **6**:86–97. [Google Scholar].
- Tobie, C., Peron, F. and Larose, C. (2015). Assessing Food Preferences in Dogs and Cats: A review of the current Methods. *Animals*, **5**(1) : 126-137. <https://doi.org/10.3390/ani5010126>
- Xiao, Y., Wang, H.H. and Li, J. (2021). A new market for pet food in china: Online consumer preferences and consumption. *The Chinese economy*, 1-11. <https://doi.org/10.1080/10971475.2021.1890360>
- Zicker, S.C. (2008). Evaluating Pet Foods: How Confident Are You When You Recommended a commercial pet food? *Topics in Companion Animal medicine*, **23**(3) : 121-126. Sci-Hub | [10.1053/j.tcam.2008.04.003](https://doi.org/10.1053/j.tcam.2008.04.003).
- Webliography :**
1. Pet Care (supermarketnews.com)
 2. American Pet Products Association. Pet Industry Market Size and Ownership Statistics. http://www.americanpetproducts.org/press_industrytrends (accessed 14 July 2020). [Google Scholar]
 3. Ampuero, O. and Vila, N. (2006). Consumer Perceptions of Product Packaging. *J. Consum. Market.* 2006, **23**(2), 100–112. [Crossref], [Google Scholar]
 4. Román, S., Sánchez-Siles, L. M. Parents' (2018). Choice Criteria for Infant Food Brands: A Scale Development and Validation. *Food Qual. Preference*, **64** : 1–10. [Crossref], [Web of Science ®], [Google Scholar]
 5. Del Rio, A.B., Vazquez, R. and Iglesias, V. (2001). The Effects of Brand Associations on Consumer Response. *J. Consum. Market.*, **18** : 410–425. Doi:<https://doi.org/10.1108/07363760110398808>. [Crossref], [Google Scholar]
 6. Rindova, V.P. and Fombrun, C.J. (1999). Constructing Competitive Advantage: The Role of Firm–constituent Interactions. *Strategic Manage. J.*, **20**(8) : 691–710. [Crossref], [Web of Science ®], [Google Scholar]
 7. Bolton, L.E.; Warlop, L. and Alba, J.W. (2003). Consumer Perceptions of Price (Un)fairness. *J. Consum. Res.*, **29**(4) : 474–491. [Crossref], [Web of Science ®], [Google Scholar]
 8. McNeal, J.U., Ji, M.F. (2003). Children's Visual Memory of Packaging. *J. Consum. Market.*, **20**(5) : 400–427. [Crossref], [Google Scholar]
 9. Deliza, R., MacFie, H. and Hedderley, D. (2003). Use of Computer-generated Images and Conjoint Analysis to Investigate Sensory Expectations. *J. Sens. Stud.*, **18**(6) : 465–486. [Crossref], [Web of Science ®], [Google Scholar]
 10. Lange, C., Issanchou, S. and Combris, P. (2000). Expected versus Experienced Quality: Trade-off with Price. *Food Qual. Preference*, **11**(4) : 289–297. [Crossref], [Web of Science ®], [Google Scholar]
 11. Rodríguez Tarango, J. A. (2003). Introducción a la Ingeniería en Envase y Embalaje. In *Manual de Ingeniería y Diseño en Envase y Embalaje Para la Industria de Los Alimentos, Farmacéutica, Química y de Cosméticos*; Rodríguez Tarango, J. A., Ed.; Instituto Mexicano de Profesionales en Envase y Envalaje S.C.: México, 2003; Vol. 1, pp 1–16. [Google Scholar]
 12. Provencher, V., Polivy, J. and Herman, C.P. (2009). Perceived Healthiness of Food. If It's Healthy, You Can Eat More! *Appetite*, **52** : 340–344. DOI: <https://doi.org/10.1016/j.appet.2008.11.005>. [Crossref], [PubMed], [Web of Science ®], [Google Scholar].
