# Understanding Pet Food Attribute Preferences of US Consumers 

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This encyclopedia entry is dedicated to pet food attributes and builds on the work of Meike Rombach and David Dean. Partial least squares structural equation modelling shows that pet food purchase involvement positively impacts subjective and objective knowledge about pet food. Subjective knowledge appears to be the strongest factor impacting the importance consumers place on all three attributes. This is followed by objective knowledge. Socio-demographic factors such as gender, age, income, and education appear to have a limited impact as predictors for the importance consumers place on the product attributes.

Keywords: pet food ; pet food involvement ; pet owner ; product attributes

## 1. Introduction

Most commercial pet foods are formulated based on the nutritional composition of ingredients available in public databases ${ }^{[1]}$. Ingredient composition and pet food quality are key for many pet owners when choosing between raw, wet, or dry food ${ }^{[2]}$, and they perceive certain ingredients as undesirable or unsafe ${ }^{[3]}$. Ingredients such as wheat and corn may be perceived as low quality or fillers by some pet owners ${ }^{[4]}$, although these claims are not scientifically based ${ }^{[5]}$. However, they may still appreciate dry pet foods with cereals due to affordability and convenience [6]. Other important product attributes pet food owners search for when inspecting suitable pet food items are often related to the production and processing of the product. Specifically, natural, wholesome, organic, or cruelty-free pet food are gaining popularity [7] [8]. Vinassa et al. (2020) highlighted that social and cultural factors such as the eating habits of pet owners influence the decision-making processes when buying pet food and feeding practices ${ }^{[4]}$. Other key factors that determine the pet food preferences of US consumers are widely unexplored.

### 1.1. Pet Food Purchase Involvement

Pet food purchase involvement is defined as the extent to which pet owners devote interest and effort into purchasing pet food ${ }^{[9]}$. According to Montandon et al. (2017), involvement is high when a product is highly valued, and considerable research is required prior to purchasing $[\underline{10]}$. Often, more expensive or riskier purchases are considered high involvement. Alternatively, involvement is considered low [11][12] when a product is bought habitually, requiring little or no previous research. These low involvement purchases often represent minor expenses and risk [13].

Purchase intent, use, value, pleasure, and integrity associated with a product determine how the product is evaluated by pet owners. The evaluation depends on the pet owner's extent of involvement ${ }^{[14]}$. Pet owners showing high involvement tend to have a greater interest in product information. They are likely to compare and contrast product attributes and features and hold favourable or unfavourable views towards them ${ }^{[15]}$. Regardless of whether the involvement is low or high, consumers experience positive or negative emotions about a purchase and this impacts their satisfaction or dissatisfaction with the transaction. Positive emotions exert a higher influence on satisfaction in low involvement products than in high involvement products ${ }^{[15]}$.

### 1.2. Objective and Subjective Consumer Knowledge

A pet owner's knowledge can influence their attitudes toward pet food and therefore the importance they place on pet food attributes. Consumer knowledge is closely related to perception. Depending on their knowledge and perception, consumers may evaluate pet food product attributes either negatively or positively ${ }^{[16]}$. When consumers have a high level of involvement with a certain product that is of personal interest, product knowledge increases [16]. Consumers are often concerned about buying unfamiliar products when they lack sufficient knowledge to anticipate negative impacts [16]. Similarly, they may view familiar products favourably and develop loyalty towards the product. Consumer knowledge is
commonly distinguished between objective and subjective knowledge [17]. Subjective knowledge is also known as perceived knowledge because it describes the consumer's perception of their knowledge, whereas objective knowledge refers to what they actually know $[18][19][20]$.

## 2. Key Factors Determining the Importance that US Pet Owners Place on Pet Food Attributes

A high level of involvement implies some experience with pet food, and this contributes to both objective and subjective knowledge. Specifically, a pet owner's direct and indirect experiences with pet food are positively associated with the level of product information stored in their memory and their self-assessment of that knowledge [20][21].

Involvement may come from searching for information prior to and during purchase decisions [6], including personal experience, exposure to other owner experiences, product advertisement, retail store displays [15], or advice from the vet [1].

It is noteworthy that both objective and subjective knowledge are the strongest predictors for the importance that US pet owners place on convenience and natural ingredients as product attributes. These findings corroborate recent studies on pet food attributes by Park (2021) and Vinassa et al. (2021) which outline the importance of both attributes [1][4]. Subjective knowledge has an impact on value and health claims, but objective knowledge did not show any significant impact. Given that objective knowledge is fact-based, retained in long-term memory, and implies theoretical or practical understanding of a subject ${ }^{[22]}$, in this case pet food, pet owners with objective knowledge may not find claims of any kind important. Perhaps claims are viewed as reasoned extrapolations of knowledge, which are not necessarily fact-based. Claims related to the healthiness of raw food diets for pets, or the unhealthiness of dry food items are hard to evaluate for consumers, as these topics have long been debated in the pet food industry and among scientists without reaching a consensus [4][23].

Value for money claims can be difficult to evaluate because consumers may be promotion- or prevention-focused when it comes to value for money claims ${ }^{[24]}$. Both stances are relevant to the strategies pet owners use to reach their desired outcome. Pet owners may either strive for results that match their desired outcome (promotion focus) or avoid results that do not match their desired outcome (prevention focus) [24]. If a consumer's desired outcome is "getting enough value for money by choosing the right pet food product", then certain retail practices may not satisfy them. For instance, a reduction of portion size without a commensurate reduction in price may disappoint both types of consumers [25][26].

Findings concerning the socio-demographic backgrounds of pet owners and their impact on the importance dedicated to convenience, value and health claims, and natural ingredients as product attributes are only partially confirmed in recent studies. This can be in part attributed to the diversity in findings and inconclusiveness of the body of literature on pet acquisition and pet food. Gender was not found to have any significant impact on any of the attributes and age only showed a negative impact on convenience as a product attribute. Perhaps elderly pet owners may not be that interested in convenience because pet food per se is a relatively convenient product, coming in pouches, bags, or cans that are ready to be served without time-consuming preparation or processing requirements. Following Peura Kapanen et al. (2017) ${ }^{[27]}$, elderly people have reservations about and negative associations with convenience products, as they perceive convenience and quick solutions as negative [27]. Moreover, other studies emphasize that some elderly people face problems with opening the small tight lids, reading the small print on packaging, and with spillage during opening [28][29].

Education positively impacts the importance that pet owners place on convenience, as well as on value and health claims as product attributes. Education often determines access to certain lifestyles and lifestyle choices [30]. In this lifestyle context, convenience, as well as value and health claims, are likely to be important to pet owners who view their pets as an extension of self. These owners do not shy away from effort, time, and money to spoil their pets with goods and opportunities that reflect their own lifestyle [31][32]. Convenience, value for money and health are aspects that are relevant in many lifestyles. The findings related to income suggest a negative relationship between income and value and health claims, which suggest that at higher levels of income, pet food value for money is less important.

## | 3. Future Research

Future research may address pet food attribute preferences following Vinassa et al. (2020) ${ }^{[4]}$. This is a rather unexplored area and would allow pet food producers, processors, and marketers to develop and adjust pet food products and match them with consumer needs. Perhaps a combination of best-worst approach with a latent class analysis on pet food
attributes would be suitable. Such an approach would uncover the trade-offs consumers make when choosing products and classify consumer groups by their preferences.

Additionally, the product attribute importance items were factor analyzed, resulting in three factors: importance placed on convenience of pet food, importance placed on value and health claims of pet food, and importance placed on natural ingredients.

Further research could be framed in an animal welfare context and focus on consumers' willingness to pay for cruelty free products and claims related to production practices and sustainability. Species appropriate husbandry and sustainable food production are gaining increased consumer interest ${ }^{[4]}$. Following Park (2021) the concept of pet food involvement could be more intensively studied ${ }^{[6]}$, and a national representative study of US-pet food buyers may help to shed light on the ever-present discussion on socio-demographic information and its importance in predicting pet food buying behavior.

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