Examining Role Model and Information Source Influence on Breed Loyalty: Implications in Four Important Product Categories

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Abstract

This study examines the concept and impact of breed loyalty in the pet industry. The authors create a breed loyalty scale then look at what are the influencers of this type of loyalty. Adding other pet owners and veterinarians to the list of role models that have been studied then extends the consumer socialization and role model literature. Various features of the dog breed themselves are examined, such as size, temperament, trainability, cost etc, and these features are then compared with the influence of role models on breed loyalty. The results indicate that the major influencers of breed loyalty are parents, breeders, other pet owners, TV commercials and the trainability aspect of the dog. The research also focuses on the influence these role models have on pet owners buying intentions in pet food, types of pet toys, brand of toy, and brand of pet medicine categories. Interestingly the results indicate that TV commercials on their own are not the most effective way to influence a consumers purchase intentions, but perhaps by including the other role models into these advertisements (such as showing a parent suggesting a specific brand of pet medicine), their effectiveness could be greatly increased.

Key Words: Loyalty, Socialization, Role Models, Pets, Retail Sales, TV Commercials

Introduction

The size of the pet industry has more than doubled over the last ten years. After tracking pet industry statistics for more than a decade, the American Pet Products Manufacturer's Association (APPMA) released figures that show that "pet spending has more than doubled from $17 billion in 1994 to a projected $40.8 billion for 2007" (APPMA, 2007). Also, according to the U.S. Census Bureau, the pet industry is now the seventh largest retail segment in the country. There are more pets than people in the United States, with the APPMA 2007 report indicating that there are approximately 382 million pets in the US versus 290 million people. More than 75 million of those pets are dogs. Even more, one third of the households in the United States own at least one dog (Geissler 2003). In 2007, Americans' spending on pets was projected to be higher than ever: $16.1 billion for food, $9.9 billion for supplies and O-T-C medications, $9.8 billion for veterinarian care, $2.1 billion for live animal purchases, and $2.9 billion for other services (APPMA, 2007). Many companies are involved in the manufacturing of pet food. Purina and IAMS are two of the major manufacturers along with several niche players in the market. Purina, which is owned by Nestle, makes such products as Purina, Alpo and Kibbles and Bits. IAMS is now owned by Proctor and Gamble and makes high quality wet and dry pet food. Some of the niche players are Quantum Choice, Pedigree and Judges Choice. The pet supplies and OTC market is highly fragmented. Hartz is one of the only major companies in this segment. Most of the segment is comprised of smaller companies. The Hartz Mountain Corporation operates as a company with a strong focus on customer service and innovation with more than 1,500 quality pet products for dogs, cats and other animals. Hartz focuses on nutrition products, medical products, collars and leashes and supplies. Most of the major pet stores such as PetCo and PetsMart sell live pets, however the majority of the sales in this category come from private breeders. The frequency of use of Vet care has also increased due to an increase in the availability and use of pet health insurance (APPMA, 2005).

There are several trends occurring in the pet industry that are of importance. One trend is a narrowing of focus toward private label brands. Store brands of pet food are becoming more popular choices for purchasers of pet food. Ol' Roy private label brand dog food can be found on shelves at Wal-Mart (Wikipedia, 2005). Private label brands offer cheaper alternatives to name brands of pet food. Store brands now account for 11 percent of cat food, 12 percent of dog food, 13 percent of pet supplies and 21 percent of cat litter according to the Private Label Manufacturers Association (APPMA, 2005). The industry is seeing consolidation as successful niche players in the industry are finding themselves bought out by bigger manufacturers such as Purina and Proctor and Gamble. Proctor and Gamble recently purchased IAMS. Mom and Pop pet stores are facing stiff competition from the rapid expansion of major super pet food centers such as PetsMart and PetCo. PetsMart currently operates 726 stores in the United States with reported annual sales of 3.3 billion in 2004, up from 2.6 billion in 2002. PetsMart opened 34 new stores in the third quarter of 2005 (PetsMart, 2005). Another trend is that through advancements in pet health care dogs are living longer. Many employee benefit plans now offer pet insurance as part of their benefits package (APPMA, 2005).

Little research has been done in the area of consumer behavior as it relates to pets. Research concerning the influence of breed loyalty and the impact that it has on the decision to buy pet themed merchandise is almost non-existent. Who or What influences the pet owner's decision to make a purchase is another area that has not been heavily studied. These unique characteristics that constitute consumers behavior and their relationship to pet purchases are extremely important to all involved in the pet ownership/buying/selling process. Not only does

this market consist of pet stores, but it also includes vets, grooming facilities, breeders, and pet-themed sales of novelties such as shirts, calendars and figurines.

To achieve the goals of this study we: 1) Created and validated a breed loyalty scale to help measure and indicate an individuals disposition towards various dog breeds. 2) Studied various potential role models such as parents, other pet owners, and veterinarians along with various informational sources such as breeders and the media with respect to their potential influence on pet ownership behaviors. 3) Looked at breed characteristics as indicators that might predict breed choice and overall breed loyalty. 4) Examined role model influence on pet owners buying intentions in four major pet product categories, and lastly 5) Examined breed loyalty's connection to various purchasing behaviors.

Breed Loyalty

The authors of the study attempted through an extensive literature review to find an existing scale to measure breed loyalty, however no such scale was found. In order to create a breed scale a review of the brand loyalty literature was done to help give some direction. The general process listed by Churchill (1979) for scale development was also followed.

Loyalty, as defined by McGoldrick and Andre (1997), means that it "conjures up various notions of affection, fidelity or commitment". Wood (2004) says that a brand loyal person may have "a positive attitude towards a brand, buy a brand in preference to others within the market and continued allegiance to a brand over long periods of time." It was decided to base our definition of breed loyalty on these definitions. Hence our definition of breed loyalty: A breed loyal pet owner will have a positive attitude towards a specific breed of dog, buy that breed when compared with other existing breeds and have a continued allegiance to that breed over long periods of time.

The elements that comprise the breed loyalty scale are a modification of existing brand loyalty scales and items created by the authors of this study. The authors reviewed "Dimensions of Brand Purchasing Behaviour: Consumers in the 18-24 age group" by Wood and "Assessing the Performance of Brand Loyalty Measures" by Rundle-Thiele and Mackay. Wood developed a brand loyalty scale from the existing literature and a piloting process and came up with eleven statements that are used to assess brand loyalty. The hypotheses that were tested by Thiele and Mackay were also reviewed and kept in mind while the breed loyalty scale was being created. After developing a list of over 30 potential scale items, a pre-test was conducted and the best items were kept. From those original 30-plus items the following breed loyalty scale was created:

1. I am loyal to a certain breed of dog
2. I will always own the same breed of dog
3. When my dog dies I will get the same breed again
4. I don't care what type of dog I have as long as they are friendly (reverse coded)
5. My favorite breed(s) are the only breed(s) for me
6. I would be willing to get a different breed of dog next time (reverse coded)

The null hypothesis for breed loyalty would state that there should be no difference between individuals in their degree of breed loyalty. Therefore we present the following alternative hypothesis:

H1. Differences exist between dog owners in their degree of breed loyalty.

Pet Ownership Influences (Who)

One aspect of the study focuses on who influences breed loyalty. The five groups that are the focus of our study are parents, other pet owners, veterinarians, television commercials and dog breeders. These five groups potentially affect the decision as to which breed of dog to buy and whether a pet owner will stay with the same breed of dog, i.e. breed loyalty. We seek to determine how much these five groups influence breed loyalty.

Role model influence that can come from parents, other pet owners and breeders can clearly have an impact on breed loyalty. Bandura (1977) defines role model influence as "anyone the individual comes in contact with, either directly or indirectly, who potentially can influence decisions or behaviors". Martin and Bush (2002) describe role models as "anyone that can possibly influence or impact the buying decisions of a consumer". Clark, Martin, and Bush (2001) provide support to role model influence on teenager's purchasing decisions. They found that "mothers have a significant positive relationship between role model influence and adolescents' marketplace knowledge." Flemming and Petty (1999) also give credence to role model influence. They found that "considerable research in psychology suggests that influence from other people affects personal opinions". The Who of breed loyalty is predominately focused on the role model influence on decision making when it relates to buying a certain breed of dog. Based on a review of the literature it can be justified and supported that parents, other pet owners and veterinarians may be seen as role model influencers of breed loyalty. Breeders and TV commercials are information sources that individuals may additionally turn to and are therefore also included in this study.

We extended the role model literature by examining the influence parents, other pet owners and veterinarians have on individual pet owners. Before this influence can be examined however, we first need to see if these groups are indeed seen as role models. The following hypotheses are thus offered:

H2(a-c). Parents (H2a), other pet owners (H2b), and veterinarians (H2c) are seen by dog owners as being good role models for pet ownership.

To go one step further we included the media, specifically TV advertisements, and professional dog breeders and looked at the influence each of these five had on pet owners with respect to which breed the owner chose. To examine these relationships the following hypotheses were tested:

H3(a-e). Parents (H3a), other pet owners (H3b), veterinarians (H3c), the media (H3d), and breeders (H3e), significantly influence a dog owner's choice of breed.

To further examine the influence the "who" have on pet owners we looked at what influence, if any, each group had on a pet owners degree of breed loyalty. To examine this relationship the following hypotheses were tested:

H4(a-e). Parents (H4a), other pet owners (H4b), veterinarians (H4c), the media (H4d), and breeders (H4e), influence a dog owner's degree of breed loyalty.

Pet Ownership Influences (What)

In the midst of deciding the perfect dog that your family vet, friend, breeder or other outlet may suggest, there comes the question not only of who influences you, but what influences

you to buy a particular breed. There are a number of characteristics of animals that play into the decision as to whether or not the animal would fit with your lifestyle and tastes. Size, length of its coat, the amount of exercise the pet will need, the breeds temperament, the ease of training and the overall cost of ownership of the animal could be important decision making factors.

Size

The size of a dog is a huge influencer on individuals or families shopping for a new furry companion. Is it suggested by Arden Moore, a pet expert, author, and graduate of The Humane Society's national companion-animal training program, to choose a dog based on the animal's temperament, not the animal's size. He suggests that people get fooled by the size and think the bigger the dog the more active they will be. In many cases it is the exact opposite of the truth (Moore, 2003). On the other hand the AKC advises that size is obviously important when considering the amount of space in which the dog will be living. It is important to have a yard and house that can accommodate a big dog if that is what you might be leaning toward. On the other hand some small dogs need a good sized area to run in as many are very full of energy and need lots of time and space to run (AKC.org). Choosing a dog based on size can be a catch-22. It cannot just be assumed that a small dog does not need much space and a large dog does. Although large dogs will take up more space they may not be as active as the smaller breeds and thus may require less run-around room.

Coat

Taking care of a dog's coat is a very important part to owning a dog and should play a role in deciding what type of breed is right for that particular owner. The AKC suggests deciding on how much hair you are willing to deal with and pick between breeds that fall into that category. Some breeds have minimum grooming needs, some shed all year long, and others lose hair in clumps for a few weeks once or twice a year. Also, some dogs take professional cuts to look like they do on television, which can be an added expense (AKC.org).

Contrary to many people's beliefs longer coats do not necessarily mean extra grooming. Even breeds that are said to be "no shed" breeds will still lose some hair over time (Peak). Allergies can also be a consideration when choosing a breed. Although some dogs certainly shed less than others totally non-allergenic dogs simply do not exist. Individuals that are allergic to dogs are more than likely not allergic to the actual shedding of the dog's hair. Rather it is more likely that proteins found in the dog's saliva, dander, or possibly even contact with urine, will trigger allergic reactions (Dremel, 2003).

Exercise

Exercise is vital to the health of any dog. Whether it is a dog that needs minimal daily exercise or a breed that requires hours of exercise it must be taken into consideration when deciding on the perfect breed. As suggested, by Karen Peak of West Wind Dog Training, exercise is both mental and physical. A walk for a half hour might be plenty of exercise for one breed but may not be enough for other breeds. To have a good idea she suggests looking at books about particular breeds. What one person suggests about a breed may not be correct and there are plenty of books to offer advice. If looking at a mixed breed it would be wise to research all of the breeds in the dog to determine what kind of exercise that dog will need (Peak, 2003).

Temperament

Understandably, temperament is vitally important when choosing a dog to fit your needs. As the AKC suggests, there are many questions to answer when deciding temperament. Is it an active dog you are looking for or a more subdued one? A dog that is stubborn or a dog that can

be trained with ease? A dog that needs lots of attention or a dog that can keep itself entertained for hours on its own? Dogs that need lots of attention but do not get it can often times become destructive (AKC.org). In order to find a dog with the exact temperament you are looking for it might be a good idea to visit more than one litter. A dog that jumps right out of the box at you may be a lot more dog than you can handle. At the same time the one who sits back in the corner alone may be a little more of a loner than you would want. These are issues that should be decided upon prior to arriving at the breeders (Frick, 2004).

It may also be good to consider a dog with the same type of temperament as you have. Although you should avoid extremes, finding a puppy that resembles your traits, may allow for a closer bond. There are also simple tests suggested that you can perform when going to the kennel to determine what the temperament of a puppy (Baer, 1996). Temperament is crucial to making a dog fit with its family and a significant amount of time should be spent determining what temperament is right for you and what the temperament of the puppies are.

Trainability

Another characteristic to take into account is the trainability of the breed. As Spiker (2000) suggests that you should get a puppy that is easy to train. How do you know? Based on his ideas puppies that seem to like to play most of the time are easier to train than those that don't. Playing with him and throwing things for him to chase are a way to tell how playful the puppy will be. It may also be useful to use a foreign language when training your dog. It makes it more difficult for others to try to control your dog if they do not know the language.   Many police dogs, for instance, are trained in German (Spiker, 2000).

Frick explains that when trying to train a dog, the dog needs to understand the signs and signals they are seeing. Dogs tend to watch your feet and face for direction. Knowing simple tips like this can make the training of a dog much easier (Frick, 2004). Training also requires commitment and time from the owner. It is not something that you can just take your dog to class and then go home and not work with them. Training a dog is a lifetime commitment (AKC.org).

Cost

Another consideration that pet owners need to analyze is the cost of owning the dog. Between the cost of food, vet bills, training classes, toys and unforeseen expenditures, a dog can cost around $9000 to $10 000 for the average ten-year lifespan. Many breeds live longer than ten years and costs can certainly add up quickly (Frick, 2004). Pet insurance is now available for around $110 a year and can cover up to $9000 in medical expenses should your dog need serious surgery or treatment (Spiker, 2000). Choosing a pet is not an easy decision and there are certainly a lot of "What's" that go into the decision.

Given the above characteristics it is important to determine the relative importance each characteristic plays in the decision making process when choosing a breed. Therefore the following hypotheses were tested:

H5(a-g). A dog's size (H5a), length of coat (H5b), amount of exercise needed (H5c), temperament (H5d), trainability (H5e), overall cost (H5f) and whether the breed would be good around kids (H5g) will be important to individuals when choosing a specific breed of dog.

It also seems important to look at these "what" characteristics and their potential influence on a pet owners expressed amount of breed loyalty. To examine this relationship the following hypotheses were tested:

H6(a-g). A dog's size (H6a), length of coat (H6b), amount of exercise needed (H6c), temperament (H6d), trainability (H6e), overall cost (H6f) and whether the breed would be good around kids (H6g) will be important to individuals when developing a sense of breed loyalty.

Buying Intentions

Given the sheer magnitude of the pet industry sales it is valuable to examine the influence these sources of information (breeders and the media) and role models (parents, other pet owners and veterinarians) have on individuals buying intentions in a number of important categories. These categories were 1) types of toys purchased 2) brand of toy purchased 3) brand of pet medicine and 4) brand of pet food purchased. Each respondent was asked to rate their agreement on a 7-point Likert type scale indicating the influence each information source had on them for these 4 categories of goods. The full table of results can be found in Table III.

Methodology

The study consisted of a survey of 231 dog owners. For demographic information see Table I. In order to help gain a wide variety of respondents, the researchers trained an undergraduate level class to help collect the data. The students were given detailed instructions as to how to administer the survey and were each given 5 surveys to be completed. This was done before a holiday weekend so that students were able to head to their respective hometowns to find respondents to participate. Using this technique we had 231 of the 250 surveys returned in useable form, with respondents hailing from over 90 different zip codes.

Respondents were given a written survey in which they gave their responses to the role model scale items as well as for the breed characteristic questions. Responses to the breed loyalty questions were also collected. Various demographic variables were included at the end of the survey.

Breed loyalty, as mentioned earlier, was a scale created specifically for this survey. The scale attempts to determine a respondent's level of loyalty to a certain breed of dog. The negatively worded items were recoded so that higher scores would consistently represent a respondent that was more breed loyal. The newly created 6-item scale had a Cronbach's alpha of .837. This would seem to indicate good consistency within the scale and is well above the generally accepted standard of .70. To further investigate the newly created scale a confirmatory factor analysis was performed using LISREL 8.30 (Joreskog and Sorbom, 1999). Confirmatory factor analysis is considered to be a more rigorous test of a scales dimensionality than that of exploratory factor analysis (Kelloway, 1988). By using confirmatory factor analysis the measurement model was specified a priori in order to restrict the possible number of factors in the solution (Gerbing and Anderson, 1988). As seen in Table II the majority of the items (1, 2, 3, 5) had a standardized parameter estimates greater than .60 indicating significant explained variance from each item. Items 4 and 6 demonstrated parameter estimates below .60 indicating that they did not explain a significant amount of variance. However the overall fit of the confirmatory model can also be used to assess the unidimensionality of a scale (Kumar and Dillon, 1987). The goodness of fit index is .93, the root mean squared residual is .078, the incremental fit index is .93, and the normed fit index is .92. These fit statistics indicate that there is an overall acceptable fit for the model and are well within the norms for social science

research (Bagozzi and Yi, 1988). Based on these results it was decided to leave items 4 and 6 in the scale. If they were removed the new Cronbach's alpha would become .90. It is suggested that future researchers initially include all six items in the breed loyalty scale and confirm the results found in this study.

Role model influence was measured using slight variations of existing scales from the consumer socialization literature (e.g. Moschis & Churchill, 1978; Rich, 1997) and included scale items such as "my Veterinarian…provides a good model for me to follow, acts as a role model for me" etc. This 5-item scale utilized a Likert type range from strongly disagree (1) to strongly agree (7). Each respondent completed this scale for their parents, other pet owners and veterinarians. This method was used to initially determine if current pet owners saw any of the aforementioned people as role models with regards to their pet ownership behaviors. Each scale had an acceptable Coefficient Alpha, with parents alpha = .957, other pet owners = .919 and veterinarian role model influence scale having an alpha of .924.

To measure the "What" influences of breed purchase, 7-point Likert type scales anchored by strongly disagree (1) and strongly agree (7) were used. Respondents were asked "When deciding which breed of dog to get: I considered…specific dog features such as length of coat, overall size of the breed, amount of exercise needed, trainability, overall cost of having the breed, and if the breed would be good around kids.

To measure the behavior intentions of dog owners for the four chosen categories, 7-point Likert type questions anchored by strongly disagree (1) and strongly agree (7) were used. The questions were phrased in the following format: "The opinions of (parents, other pet owners, veterinarians and breeders) influence me to: buy certain types of pet toys; buy certain brands of pet toys; buy certain brands of pet medicine; buy certain brands of pet food". To measure subject responses on TV commercial influence on these same categories, a slight wording change was necessary. The statement was reworded to read, "TV commercials that I see influence me to:".

Results

In order to test H1, whether variation in breed loyalty amongst pet owners exists, the newly created breed loyalty scale was utilized. Responses on the summated scale ranged from a low of 1.0 a high of 7.0. The average score was 4.009 with the sample evenly split with 112 respondents having an average breed loyalty score below 4.009 and 112 scoring above. The standard deviation in scores was 1.425. The results show support for H1 in that it appears pet owners can indeed differ from one another in their level of breed loyalty. With the split occurring right at 4.0 on the scale (neither agree or disagree) this lends itself well in future research to split the respondents and create 2 groups consisting of those respondents that are not breed loyal (scores below 4.0) and those that are breed loyal (scores above 4.0).

To test H2(a-c) the role model scale responses were utilized for parents (H2a), other pet owners (H2b) and veterinarians (H2c). The results were as follows: respondents average parental role model influence score was 5.997, with a standard deviation of 1.356 and with scores ranging from 1 to 7. The average other pet owner role model influence score was 4.217, with a standard deviation of 1.351 and scores ranging from 1 to 7. The average veterinarian role model influence score was 5.815 with a standard deviation of 1.636 and scores ranging from 1 to 7. These results show support for H2a, H2b and H2c. This illuminates an interesting result since

it appears that parents and veterinarians seem to have very similar levels of influence and other pet owners have a smaller but still positive role model effect.

To test H3(a-e), whether parents (H3a), other pet owners (H3b), veterinarians (H3c), the media (H3d) and breeders (H3e) influenced a dog owners choice of breed, the mean scores on "The opinions of my ____ influenced me to get a certain breed of dog" were examined. The mean scores fell between 3.30 and 3.94, with parents (mean = 3.94, standard deviation = 2.07, range 1 to 7), other pet owners (mean = 3.72, standard deviation = 1.92, range 1 to 7), veterinarians (mean = 3.96, standard deviation = 2.01, range 1 to 7), the media (mean = 3.30, standard deviation = 1.85, range 1 to 7) and breeders (mean = 3.83, standard deviation = 2.11, range 1 to 7). This does not lend support for H3(a-e). All five sources of influence had roughly the same amount of influence on breed choice with none having a mean score above 4.0. However, the range of responses indicates that certain individuals did see these five as sources of influence on breed choice. Future research is suggested to investigate who is being influenced and why are they more susceptible to this type of influence.

To test H4(a-e), parents (H4a), other pet owners (H4b), veterinarians (H4c), the media (H4d), and breeders (H4e), influence on a dog owner's degree of breed loyalty, a regression model was created in which the independent variables (the five influencers) were entered as a block so that the predictive ability of these influencers on breed loyalty could be examined. The results for H4(a-e) were determined by analyzing the standardized beta coefficients along with their significance levels. It was found that the overall model had an adjusted R^2 of .205, F = 5.696, p < 0.000. For H4a, parental influence had a standardized beta coefficient of .363 and a t-value of 5.612. This was found to be significant at the .000 level. For H4b, other pet owner influence had a standardized beta coefficient of -.215 and a t-value of –2.868. This was found to be significant at the .005 level. For H4c, veterinarian influence had a standardized beta coefficient of .062 and a t-value of .973. This was found to be non-significant at the .332 level. For H4d, media influence had a standardized beta coefficient of .137 and a t-value of 2.011. This was found to be significant at the .046 level. For H4e, breeder influence had a standardized beta coefficient of .183 and a t-value of 2.549. This was found to be significant at the .012 level. The results show support for H4a, H4c, H4d, and H4e, but does not show support for H4b (veterinarians). An interesting result is that other pet owners had a negative affect on an individual's level of breed loyalty while the other influences were all positively related to breed loyalty. This could possibly be explained due to the likelihood of other pet owners having a wide ranging number of breeds of dog to show and discuss with a potential owner and therefore giving them a wider choice set to consider. An example would be where your neighbor has a Boxer, your friend has a Poodle and someone you meet in the park has a Husky. This could in-turn make a person less breed loyal due to exposure to a number of different viewpoints on various breeds.

To test H5(a-g), whether a dog's size (H5a), length of coat (H5b), amount of exercise needed (H5c), temperament (H5d), trainability (H5e), overall cost (H5f) and whether the breed would be good around kids (H5g) will be important to individuals when choosing a specific breed of dog, the mean scores on each of the survey items was examined along with their respective standard deviation and ranges. The results were as follows: size (mean = 5.58, standard deviation = 1.58, range 1 to 7), length of coat (mean = 5.09, standard deviation = 1.76, range 1 to 7), amount of exercise (mean = 4.83, standard deviation = 1.70, range 1 to 7), temperament of the breed (mean = 5.50, standard deviation = 1.58, range 1 to 7), trainability (mean = 4.80, standard deviation = 1.78, range 1 to 7), overall cost of ownership (mean = 4.42,

standard deviation = 1.90, range 1 to 7) and if the breed would be good around kids (mean = 4.82, standard deviation = 1.94, range 1 to 7). As can be seen, the means ranged from a low of 4.42 for overall cost, to a high of 5.58 for size of the breed. This indicates support for H5(a-g) and that those characteristics are used by individuals when considering a specific breed for animal companionship.

To test H6(a-g), whether a dog's size (H6a), length of coat (H6b), amount of exercise needed (H6c), temperament (H6d), trainability (H6e), overall cost (H6f) and whether the breed would be good around kids (H6g) will be important to individuals when developing a sense of breed loyalty, a regression model was created with the independent variables (the characteristics) being entered as a block so that the predictive ability of these influencers on breed loyalty could be examined. The results for H6(a-g) were determined by analyzing the standardized beta coefficients along with their significance levels. It was found that the overall model had an adjusted R^2 of .056, F = 2.439, p < .012. Out of the six independent variables tested in the model, only H6e (trainability) was found to be a significant predictor of breed loyalty, with a standardized beta coefficient of .249 and a t-value of 5.612. This was found to be significant at the .002 level.   This indicates that although each of the tested characteristics are utilized by individuals when choosing a breed, individuals level of breed loyalty does not tend to be influenced by those characteristics, other than trainability of the breed. Although this is a somewhat surprising discovery it is possible that the development of breed loyalty has more to do with the emotional attachment made with an animal rather than with the animal's physical characteristics. Future research in the area of emotion with respect to breed loyalty is suggested. In summary, H6e was supported while H6a, H6b, H6c, H6d, H6f and H6g were not supported.

The second to last area that this study examined was the effect various information sources and role models had on individuals buying intentions in four main product categories, them being brand of pet food, brand of pet medicine, brand of toy and type of toy. Although specific hypotheses could be developed for this section, such as predicting veterinarians having a greater influence on medicine purchases than the other role models, it was seen as more important to readers to simply summarize the findings due to the exploratory nature of this study. The findings can be found in Table III. The highlights of the findings are given below.

When searching for information about buying a certain type of pet toy individuals are influenced by their veterinarian but not by the other role models or sources of information. This was indicated by veterinarians having a mean score of 4.56 while the other influencers had mean scores below 4.0.

When evaluating specific brands of toys, again only veterinarians were influencing individuals purchase intentions. This was indicated by veterinarians having a mean score of 4.23 while the other influencers had mean scores below 4.0.

In the pet medicine category, veterinarians (mean = 5.83), parents (mean = 4.17) and TV commercials (mean = 4.11) were positive influencers on behavioral intentions for specific brands of medicine. This is good news for advertisers who are hoping to sell specific brands of pet medicine to pet owners as it has been shown that the commercials they produce are seen by individuals as influencing purchases in this category.

Lastly, in the brand of pet food category, veterinarians (mean = 5.50), parents (mean = 4.43), TV commercials (mean = 4.42) and breeders (4.10) were seen as influencers of behavioral intentions. Other pet owners had a mean score of 3.89 and was therefore not seen as an influencer.

The last area this study examined was the effect breed loyalty had on purchase patters of pet themed merchandise, such as calendars, figurines, t-shirts etc. The effect breed loyalty had on intentions to purchase animals from a breeder or willingness to obtain them from a shelter was also explored. Pearson correlations were conducted on the variables with the following results: Breed loyalty was significantly and positively correlated with past purchase of pet themed merchandise, correlation = .149, significant at the .025 level. This indicates the more breed loyal a person is the more likely they are to have purchased pet themed merchandise in the past year. Whether respondents would be willing to get a dog from a shelter was also asked of them and then a correlation analysis was conducted with their level of breed loyalty. Breed loyalty was found to be significantly and negatively correlated to their response to the animal shelter question, correlation = -.293, significant at the .000 level. This suggests that the more breed loyal a person is the less likely they are to utilize an animal shelter when looking for a new dog. A similar process was used for examining the relationship between willingness to get a dog from a breeder and breed loyalty. Breed loyalty was found to be significantly and positively related to propensity to utilize a professional breeder, correlation = .419, significant at the .000 level. These results indicate that knowing an individuals level of breed loyalty is important in predicting various consumption behaviors. Future research is suggested to investigate other variables that could affect levels of breed loyalty as well as examining variables that might be influenced by breed loyalty.

Conclusions and Future Research

This study has helped illuminate some areas in which marketing researchers and pet product companies can focus their attention on to help better reach and influence pet owners. The first contribution of this study was showing that breed loyalty does in-fact exist and has a strong effect on consumers, especially their buying intentions and patterns. The results of this study have some practical implications to marketing practitioners in the pet industry. Four particular product categories (type of toy, brand of toy, medicine, and food) were examined with respect to who influences decision making in these categories. In the type and brand of toy category it was found that the only significant influence on an individuals purchase intentions were veterinarians. This would suggest an increase in usage of actual veterinarians in toy advertisements, actors portraying veterinarians, or the use of statements indicating vet recommendations for that particular toy or brand of toy would be effective. Since these are the role models individuals are looking to for information, increasing the use of these role models should thus increase purchases of these brands. Another interesting finding for this category was the relative lack of affect TV advertising had on purchase intentions. So perhaps including these role models into TV advertisements will help make them a more effective marketing tool.

Pet product producers and marketers can also benefit from this study with the new knowledge that not only veterinarians influence medication brand choices but also parents and TV advertisements. The pet food producers can also benefit from knowing that vets, parents, TV advertisements and breeders all have a significant influence on an individuals purchase intentions. This gives medicine and food producers a nice variety of role model choices to incorporate into their marketing campaigns.

The variables used in this study as predictors of breed loyalty were by no means exhaustive. This was an initial exploration of the research topic and further research is suggested in this area to explore what makes people more or less breed loyal. Additional research is also

suggested in the area of what breed loyalty itself might influence, such as purchase intentions and attitude towards pet advertising to name a couple. Further research in the area of pet product retail sales is also suggested, including examining shopping behavior differences when the pet is present in the store vs. when the pet owner shops alone. This seems to be a wide-open, fertile and exciting area of research with important implications to the various constituents of the pet industry.

Table I. Demographic Characteristics of the Sample.

Demographic Characteristic		
		Range
Average age	24.40	18-57
Gender	# Of Respondents	Percentage
Male	124	53.7
Female	106	45.9
Race	# Of Respondents	
Caucasian	214	
African-American	12	
Asian	2	
Hispanic	1	
Other	1	
Geographic area	Over 96 different zip codes represented	
Average # of dogs currently owned	1.75	
Average age when you got your first dog	7.73	
Average # of dogs owned in the past	5.77	
Is your dog purebred?	# Of Respondents	Percentage
Yes	190	82.3
No	38	16.5
Have you bought pet themed merchandise in the past year	# Of Respondents	Percentage
Yes	129	55.8
No	101	43.7

Table II. Confirmatory Factor Analysis Results. LISREL estimates using Maximum Likelihood

Scale:	Breed Loyalty
Scale Item	
Breed Loyalty 1	0.85
Breed Loyalty 2	0.92
Breed Loyalty 3	0.86
Breed Loyalty 4	0.28
Breed Loyalty 5	0.71
Breed Loyalty 6	0.39

Table III. Informational Sources and Role Model Influence on Behavioral Intentions

Type of Toy	Mean Score	Brand of Toy	Mean Score	Brand of Medicine	Mean Score	Brand of Food	Mean Score
Vets	**4.56**	**Vet**	**4.23**	**Vet**	**5.83**	**Vet**	**5.50**
TV	3.82	TV	3.66	**Parents**	**4.17**	**Parents**	**4.43**
OPO	3.79	OPO	3.66	**TV**	**4.11**	**TV**	**4.42**
Parents	3.49	Breeders	3.53	Breeders	3.88	**Breeders**	**4.10**
Breeders	3.29	Parents	3.14	OPO	3.87	OPO	3.89

Highlighted figures are positive influences.

OPO = other pet owners

Scale was from 1 (Strongly disagree) to 7 (Strongly agree) that they were an influence.

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