
A ‘dog’s breakfast’

**If and how marketers can about-face the ecological paw print
consumers leave on the pet food industry**

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Abstract

The emergence of trends such as veganism and vegetarianism have promoted the reduction of meat consumption and thus agricultural production worldwide, about-facing the ecological footprint of humans. However, this progress gets continuously overruled by the worldwide increasing ecological paw print of the pet food industry. Ecological paw print refers to human-caused greenhouse gas emissions by meat production for the pet food industry. In an era of Internet and great communication technologies, online advertisements have the power to facilitate a shift in consumer purchase intentions towards more sustainable pet food. To promote the reduction of meat production for the pet food industry and about-face the worldwide growing ecological paw print.

This study examined the potential influence of brand-specific claims in online advertisements, social norms and trust on consumer purchase intentions towards dog food brands. An online survey was conducted including an experiment as participants were randomly assigned to either one of two manipulations or a control group, measuring the effect of health claims and environmentally beneficial claims in online advertisements on purchase intentions towards dog food. Within the survey, dispositional trust and anthropomorphism regarding dogs were measured as personal traits. The concepts social norms and situational trust were included in the analysis as potential mediators. Overall, the findings revealed that health claims lead to higher purchase intentions towards dog food brands amongst dog owners regardless of any further information on the product and the pressure of social norms compared to environmentally beneficial or neutral claims. Situational trust in a brand was found to be independent of brand-specific claims but does positively influence purchase intentions as an independent variable. Furthermore, a potential relation between anthropomorphism towards dogs and purchase intentions was not found to be significant.

Keywords: *sustainability, pet food industry, purchase intentions, marketing, communication, online advertising*

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Introduction

1.1 The impact of meat production

Global warming reached a ‘dangerous level’ and the environment starts to show us observable proof thereof (Wellesley & Froggatt, 2015), such as rising temperatures, more frequent wildfires, heavier floods due to changing precipitation patterns and larger hurricanes (Chern, 2019). Global warming is a result of greenhouse gas emissions. The agricultural sector is responsible for 13% up to 18% of all human-caused greenhouse gas emissions in the 21st century (Steele, 2018). Meaning, agricultural production is the biggest cause of global warming besides non-agricultural energy. Agricultural production is a direct result of consumer demands for agricultural products. Especially meat production, which is the most polluting activity in the entire agricultural sector. This gets aggravated by the fact that over 40% of crops are used to feed livestock/farmed animals (Pittman, 2017).

The production of meat is associated with different environmental effects such as pollution through animal methane, water and land consumption and effluent waste (Steele, 2018). According to Elferink, Nonhebel and Moll (2008) farmed animals, which form the main ingredient used in kibble and raw meat diets for dogs, produce methane because of their digestive system. Methane is a greenhouse gas and much more potent than carbon dioxide which other animals and humans produce. For comparison, two cows produce so much methane that it is just as polluting as one car (Wang, 2017).

1.2 Environmental footprint vs pawprint

Government interventions and ethical considerations excavated due to increased awareness of the problem meat production creates for the environment (Society, 2018). Both government interventions and ethical considerations inspired new diet patterns amongst consumers worldwide. As a consequence, veganism turned into a global trend on which marketers responded with environmentally beneficial claims to boost the sales of sustainable food and products. (Society, 2018). Since 2011 human meat consumption dropped for the first time since 1909 as 39% of the world’s population began consuming less meat (Wong, 2012). At a global level, meat production did not decrease accordingly. In fact, meat production continued to increase due to the rapidly increasing demand for meat proteins in the pet food industry (Ritchie & Roser, 2019). On its own, the pet food industry is responsible for 25 up to 30% of all meat consumption in the 21st century (Okin, 2017). 70% thereof is liable to dog food according to Okin (2017). Thus, reducing meat consumption in

the dog food industry could be the missing key opportunity for climate mitigation. Especially in Western Europe which accounts for over 39% of all pet food industry revenues (Tisell, 2018).

1.3 Embeddedness of demand in meat production

Contradictory to contemporary human food trends, pooch diets increasingly contain more meat (Fleming, 2018). Pet food brands progressively advertise to include more meat in their products and claim that this leads to health benefits. As a result, the belief that raw pet food diets, named ‘barf’ diets, have significant health benefits is growing amongst consumers (Davis, 2018). Like a vicious circle the number of advertisements for barf diets, which state health claims, continues to grow as well (Statista, 2019). With over 66,4 million dogs in the European Union alone and increasingly improving physical and emotional treatment thereof, more ‘barf’ food is sold than ever (Meyer, 2018). Barf food stands for biologically appropriate raw food or bones and raw food (Ledge, 2016). Increased sales thereof significantly add to environmental problems due to its demand for livestock farming products (Vergunst & Savulescu, 2017). Meyer (2018) found that increased sales of ‘barf’ diets are a result of health claims made in advertisements which are substantiated by experiences from acquaintances such as vets and friends. How strong the effect of these claims is has been researched in the current study as well as the potential of other brand-specific claims such as environmentally beneficial claims which are introduced in the following sections. Studying purchase intentions after being exposed to different brand-specific claims could point out if the increasing demand for specific diets such as raw meat diets is due to the health claims made by advertisers. Comparing this to environmentally beneficial claims would be interesting to define consumer priorities as well as the efficiency of using specific brand claims in marketing outings.

Existing research findings point out the urgency of the problem increasing numbers of ‘barf’ diets form. However, most of these studies share the same scientific perspective on the matter and offer ditto solutions. Namely, simply reducing the amount of meat in dog food by superseding it with vegan alternatives. A different perspective is required as these offered solutions have been extremely criticized and rejected by the public who communicated that vegan alternatives are believed to be unhealthy for dogs (Dowling, 2020). Thus, merely suggesting that dog food brands should alter their range of dog food diets from meat containing to vegan alternatives will not succeed. As this change in product offering will not

change the high demand for meat including diets and therefore this already offered solution is unlikely to reduce the ecological paw print of the dog food industry. Besides, the dog food industry in Western Europe is a free market and thus consumer demand will determine the range of products over scientific findings. This suggests that in order to reduce the ecological paw print a shift in consumer demands towards meat containing dog food is required.

1.4 About-facing consumer demands and ecological paw prints

The current study aims to offer a different perspective and solution to the problem of increased meat production for dog food by studying the possible influence of brand-specific claims on consumer purchase intentions through media and advertisements. With a focus on the influence of brand-specific claims in online advertisements on purchase intentions, the researcher aims to find a way for marketers to implement brand-specific claims in such a way that it can steer consumer demands towards more sustainable dog food alternatives such as low meat dog diets. The effect of brand-specific claims, such as health benefits and environmentally beneficial claims, on consumers purchase intentions towards a specific brand will be studied. The research question is therefore as follows:

RQ: To what extent do brand-specific claims in online advertisements influence the purchase intentions of dog owners towards pet food brands?

To answer the research question sufficiently, there are two sub-questions. The first is: *To what extent do health and environmental considerations influence purchase intentions to aggrandize specific dog food brands over others?* This sub-question is of importance since earlier research contradicts each other on this matter. This is due to the scientific aim which, as mentioned above, continuously results into vegan diets as the main solution to supersede the sales of 'barf' food while other studies found that these solutions are rejected by the public who does not believe in the health benefits of vegan diets. No studies especially researched the effect of health claims by sustainable dog food brands, only claims used by raw meat brands or for specific ingredients such as salmon. In support of the first sub-question, the second adds an external variable to the study to the studies reliability. The second sub-question is: *To what extent do social norms influence purchase intentions to aggrandize specific dog food brands over others?* This question will focus on ethical and emotional motives raised by social pressure. It will clarify if the effect of brand-specific

claims, as focused on for the first sub-question, is influenced by social norms and if so how. Besides, the second sub-question can be used to evaluate the potential value of a new media marketing strategy such as a social media influencer strategy.

1.5 Academic and societal relevance

This thesis contributes to previous studies regarding the environmental impact of meat production and the dog food industry. Through social media and new media, awareness for environmental issues is raising and research into this field has grown among scholars. Currently, existing research has continuously focused on the problem itself. How big are the effects of meat production on the environment and how big is the impact of the dog food industry? Scientific solutions have been formulated by a lot of different researchers. In rough lines, they all suggest the same: minimize the production of meat for the pet food industry and replace it for sustainable alternatives. However, this only answers the ‘why’ and academic research on the ‘how’ remains a question as not only product offerings but also demand need to be revised. There has been little to no attention to which aspects are of importance for dog owners in the decision-making process towards dog food and to what extent. The current study hopes to fill exactly that gap in currently existing literature by studying the impact of health and environmental claims in online advertisements on consumer demands towards dog food.

In addition, this study contributes to the understanding of purchase intentions amongst different types of dog owners. Although the concept of attitudes towards dog food brands has already been introduced in 2014 by Donfrancesco, Koppel, Swaney-Stueve and Chambers, their research excludes the impact on purchase intentions. Furthermore, researchers have mainly been focussing on the effect packaging and aroma can have, excluding the effects of brand-specific claims. This while other researchers such as Theben, Gerards and Folkvord (2020) found that packaging and aroma are limited in their influence if brand-specific claims are missing. Indicating the importance of a study focused on the potential influence of brand-specific claims.

In terms of the societal perspective, the results of this study could be used by marketers and communication specialist of sustainable pet food brands to increase the demand for their products, improving their sales, reducing the sales of non-sustainable alternatives, and thereby reducing the pet food industries ecological footprint. As the results of this study should be able to tell them if it is more efficient to use a specific brand claim

over the other in their online advertisements. The results can also be used by non-sustainable food brands as an eye-opener. If the results prove that brand-specific claims can positively influence purchase intentions, they are more assured that a shift in their production line towards a more sustainable range of products can be successful. This research aims to do so by finding a solution for high demand towards meat containing dog diets in the possible effects of brand-specific claims in online advertisements to reshape customer demands. Insights into the strength of certain advertisement factors, such as health benefit claims, environmentally beneficial claims compared to neutral claims, can be used to motivate consumers to purchase more sustainable dog food diets. Research of this kind is ethically responsible since it accommodates sustainable pet food brands to enlarge purchase intentions towards their sustainable products. On the long run, this decreases the environmental impact of the pet food industry by lowering its demand to the agricultural sector (Steele, 2018).

Theoretical framework

The theoretical framework will provide definitions and discussions of the concepts of importance for this thesis. This includes the embeddedness of full meat diets in the pet food industry. Moreover, brand-specific claims are discussed. Already existing research findings on health claims made by dog food brands and why they are considered to be of importance for dog owners will be compared to environmental claims. The possible influence of trust on purchase intentions as well as social norms. And finally, anthropomorphism the tendency to treat your pets like humans.

2.1 Raw meat diets

Raw meat diets consist of muscle and organ meat with bones supplemented with non-meat nourishments (Hart, 2018). These diets exist for at least 90% out of raw meat (Hart, 2018). To understand the urgency of the problem full meat diets bring, the study of Silva and Turchini (2008) is a good starting point. They studied the impact of the pet food industry on keeping farmed animals. Silva and Turchini especially focus on the types of farm animals which are often used for their meat in the pet food industry. Their findings state that food for farmed animals alone accounts for 13,5% of all forage fish (prey- or baitfish) caught in the wild as farmed animals' food is supplemented with forage fish. This significantly impacts world fish and seafood supplies. In short, the food of the farmed animals which become dog food contain fish, the production thereof also heavily impacts the environment on its own. In addition, holding farmed animals negatively impacts the conservation of terrestrial ecosystems and biological diversity according to Machovina, Feeley and Ripple (2015). This is because farmed animals typically used for meat consumption have a divergent digestive system with multiple stomachs. According to Elferink, Nonhebel and Moll (2008) that leads to the production of methane, a greenhouse gas which is more potent than carbon dioxide which humans and other animals produce. Moreover, raw meat diets have a big environmental paw print due to its demand on the agricultural sector. The following paragraph provides a discussion on the increasing appeal of raw meat in the pet food industry.

2.2 Brand-specific claims

2.2.1 Health claims

The most frequently claimed benefits of raw food diets for dogs are shinier coats, healthier skin, cleaner teeth, more energy and smaller stool (Alt, 2019). Hart (2018), mentions that raw meat is also free of ingredients which cause most animal allergies. According to Alt (2019), the strongest reason to purchase raw meat diets for dogs is health-improving expectations. As Zwier (2008) found, health claims in advertisements lead to strengthened ingredient preferences for consumers as well as increased demand for 'healthy' food. As reported by Revill (2013), from 2011 on the raw meat pet-business revenue began to rise exponentially. Carla Ogeia, one of the world's biggest pet food brand owners, researched why and said:

"As more pet owners are more into their running and sports, some may wish to have similar products for their pet." (Revill, 2013)

Ogeina hereby points towards improving self-care of consumers by changing their lifestyle and diets. Her statement indicates that consumers tend towards more conscious health decisions for their pets due to health improvements in their own lifestyle. Pet food brands frequently use health claims in their advertisements to make their product more appealing for this reason. Interestingly, humans and dogs share a lot of digestive characteristics (Buchanan & Frick, 2002), as well as shared food allergies with similar clinical symptoms. According to the Insurance Information Institution, people in contemporary Western Europe care more about hurt dogs than hurt humans (Berson, 2017). Berson wrote that the only time humans were selected as more important to keep safe than dogs was when dogs were pitting against human infants. Dodgson (2017) studied two theories behind this phenomenon. Firstly, anthropomorphism the tendency to treat your pets like humans. And secondly, 'the puppy dog effect' the natural reaction in human brains to release happiness hormones when seeing a dog. Both theories will be explained further in chapter 2.6. The first theory, anthropomorphism explains why humans would rather experiment with vegan diets regarding their own health than they would be willing to use their pet diets as a test (Berson, 2017). Because anthropomorphism towards living entities leads to feelings of protection and taking care of which contradicts experimenting with diets as it could have negative effects on a pet's health. Thus, warnings about the lack of nutrition

in meat-free diets are likely to be taken much more seriously when selecting dog diets than human diets.

A different perspective is added to the health claims of raw pet food diets by Delime, Koppel, Pachot and Ratuld (2020). Their research into pet food odours and their influence on pet owner's emotions determined that the smell of kibbles (dry chunks) is often associated with terms such as fatty, rancid, viscera and cereal like. In short, words with unhealthy associations. The emotional experience while feeding raw food has been reported to be significantly more positive due to the scent of raw meat which was often associated with 'healthier' terms such as fresh and nature. (Delime, Koppel, Pachot, & De Ratuld, 2020). Therefore, scent adds to the belief of consumers that 'barf' diets are healthier. The findings of Delime, Koppel, Pachot and Ratuld (2020) support other studies that health benefits are one of the main reasons to prefer raw meat diets. However, barf dog food is never scientifically proven to indeed be healthier than kibble. In addition, the MDPI (International Journal of Environmental Research and Public Health) found that at least 75% of all consumers worldwide are aware of the impact meat production has on the planet. These findings indicate that the health-improving expectations of specific diets are more influential in purchase decisions towards dog food than the potential environmental impact the production of those products entails (Sanchez-Sabate & Sabeté, 2019).

It has been mentioned that most consumers have health issues as their main motive for the purchase of raw meat pet food. Especially millennials are convinced of the potential benefits of raw diets. Along those lines and found by Hanbury (2018) this age group is most influenced by health as the main factor in the decision-making process towards dog food brands. In addition, they form the biggest age group of dog owners worldwide as 56% of all millennials own a dog (Lintz, 2018). Thus, the main target group for high-end raw pet food marketing efforts consists of millennials. As Reville (2013) mentioned, as consumers are improving their self-care, they tend to improve their caretaking of dogs at once. Hanbury (2018) substantiated that idea when he found that especially millennials treat their pets like they would treat their children. Due to these findings, 'age' is to be included in this research as a control variable.

2.2.2 Environmental claims

Pet food brands have many reasons besides the ecological footprint to shift towards alternative meat-free sources (Prewitt, 2000). The costs of 'barf' food are higher and environmentally beneficial claims can convince consumers of their corporate social

responsibility efforts. Other reasons are activists claims and fear for consumer boycotts when continuing the use of farmed animal meat (Prewitt, 2000). Environmentally friendly claims in advertisements are proven to positively influence purchase intentions (Hansen, 2010). However, this has only been researched when the claims were underpinning an environmentally friendly ingredient list and thus plausible in combination with the product itself (Szabo, 2004). Thus, sustainable diets were needed to test how consumers responded to environmentally beneficial claims. Researchers such as Bosch, Vervoort and Hendriks (2016) found sustainable alternatives to raw meat diets which could be used. Their study determined that, for example, insects have a similar protein quality to farmed animals. Bosch, Vervoort and Hendriks (2016) also found why sustainable dog food brands do not appeal to consumers as strong as raw meat diets offering brands. Sustainable dog food is a relatively new concept. Thus, there is less proof of its beneficial characteristics as well as the possibly bad ones. Not a lot of consumers know about these 'new' diets and so there is ignorance and a lack of experience stories from other dog owners. This is a vicious circle, if no one tries it or has knowledge about sustainable dog food, no one can positively influence others with experience stories to try it out as well. Knowledge on 'barf' food was first shared by its producers and thus claims in advertising from sustainable dog food brands should be able to break this cycle.

The strength of environmentally beneficial claims on purchase intentions towards dog food brands has not specifically been studied. Researchers Kahraman and Kazançoğlu (2019) did determine that purchase intentions were positively influenced by natural-claimed products in other sectors. They found that two major influences on purchase intentions towards personal care products were environmental concerns and perceived green image. (Kahraman & Kazançoğlu, 2019). Janssen, Busch, Rödiger and Hamm (2016) found that attitudes towards animal agriculture and the environmental impact thereof were also major reasons for consumers to become vegan.

Age returns as an interesting demographic in regards to environmental claims as millennials do not only form the biggest group of dog owners, form the group we suspect will be influenced strongest by health claims, but also form the biggest age group of vegans according to CAFS (Consumer Attitudes to Food Standards) final report in 2001 (CAFS, 2001) (Lintz, 2018).

2.2.3 Health vs environmental claims

As found by Capizzi (2019) and mentioned above health is the main driver for consumers to demand specific pet food diets. Sarah-Jane Godfrey, a marketing manager for pet food DSM, mentions that pet food ingredient selection is a battle between scientific strides:

“The accessibility of pet food has expanded significantly with its growing online purchasing options, combined with pet owners’ increased access to pet health information to create both challenges and opportunities for functional pet foods and their ingredient suppliers.”

(Capizzi, 2019).

According to Capizzi (2019), pet food brands experience challenges as well as opportunities due to online access to and information about pet food. Demand changes due to information about dog health and its connection to specific diets in the blink of an eye since online platforms enable consumers to both spread and consume information and experiences. Beaton (2018) states that most pet owners are interested in the health benefits of DSM’s products and thus all their blogs to attract potential customers are focused on the well-being consequences of specific ingredients. According to Zwier (2008), health claims also have the strongest influential power of all brand claims when it comes to consumption for human infants. For example, mothers and fathers when selecting food for their babies and toddlers. Zwier mentions that the influence of health claims is considered strongest due to the belief that governmental rules will protect against false use thereof by advertisers. Thus, consumers believe that brands either will not or cannot state health claims on their products and in advertisements if the stated claims are not researched and proven to be true. The similarity in attitudes is studied by anthropologists and called the phenomenon anthropomorphism (Stregowski, 2020). According to Stregowski (2020) anthropomorphism occurs when human motivation gets linked to human-like characteristics or behaviour in inanimate objects, animals or natural phenomena. Some researchers mention the declining number of children per households as a cause for anthropomorphism towards family pets such as dogs. The puppy effect theory delivers a different cause. Namely, the human infant-like features most dog breeds dispose of. In their behavioural and neurophysiological studies, Borgi and Cirulli (2016) studied emotional relationships between animals and humans. They found that the infantile physical and behavioural features dogs possess form the basis of why humans are so attracted to them. On top of that, they determined that those features lay the foundation for

what we now know as anthropomorphism. In addition, Lehmann, Huis in't Veld and Vingerhoets (2013) found that these features led to strong psychological and adaptive relations between humans and their family pets. They called this the Baby Schema Effect (BSE). Their theory implies that looking at a dog results in the release of certain substances within the human brain. These substances called Oxytocin and Dopamine give humans feelings similar to feeling in love and result in the wish to offer protection and care. Both theories are suitable reasons for the increasingly good physical and mental treatment of dogs and thus for the worldwide growing interest in the health benefits of certain dog food diets.

Pet health information is designated as the main reason for consumer purchases of dog food by most researchers mentioned above. Even though it was also mentioned that environmental considerations weighed heaviest in shifting human diets towards sustainable alternatives such as becoming vegan. However, health continuously reoccurs as the main driver to reject sustainable dog food diets (Capizzi, 2018).

H1: Health claims lead to higher purchase intentions than environmental claims (or no claims).

2.3 Trust

Trust is the belief in the reliability or ability of something. Supplemented by the confidence one has in the honesty or integrity of a person or thing. Trust in the reliability or ability of a product and the honesty or integrity of the brand selling and/or producing that product strongly affects consumers purchase intentions state Nguyen, Nguye, Linh and Ha (2019). According to Barrett (2019), trust is therefore key to any sales relationships. It was found to be even more influential on sales than stating hard facts on delivered services and products. Other researchers studied the same relationship between trust and sales for online products in developing countries and they found that higher levels of trust indeed increase purchase intentions (Rahi, Ghani, & Muhamad, 2016). Rahi, Ghani, and Muhamad (2016) found that trust leads to increased purchase intentions by improving brand image for example. Positive brand-specific claims, if supported by corresponding experiences, are likely to positively influence trust and in its turn, trust will positively influence purchase intentions. Trust, as it is made up of different components which include honesty or integrity as mentioned above, will determine the extent to which consumers believe in brand-specific claims. If consumers trust a brand, they are more likely to believe a specific brand claim made in online advertisement

and as a result, the brand claim will have a larger impact on purchase intentions compared to a situation without trust. Here is spoken of a causal relationship. Therefore, trust is to be seen as a mediator in the current study. Potentially mediating the effect brand claims can have on purchase intentions.

Wiendenfels (2009) reported on drivers of trust. He found that external references and related constructs such as professional credentials influenced the level of trust consumers have in a brand. His study concluded that the use of external references will positively influence a supplier's trustworthiness. Wiendenfels mainly tried to determine if trust indeed had a moderating effect on purchase intentions without external references which makes his results especially usable for the current study which will not include consumer references. Aside from several contextual factors of the selling situation, which do not apply to the current study since it is focused on online advertising and online sales, Wiendenfels (2009) reported that trust indeed moderates the effect brand claims can have on purchase intentions.

Nestle and Pollan (2013) studied how the food industry influences nutritious decisions for humans through social marketing. With brand-specific claims as one of their focus points. The influencing process was found to start early, aimed at underage consumers to build sustainable consumer-brand relationships assembled on trust. Nestle and Pollan found that for products targeted at children, the target group was mostly influenced by packaging colours and images while parents are mainly focused on health claims connected to certain ingredients or the lack thereof. Regarding the current study, the findings of Nestle and Pollan (2013) indicate the importance of studying the potential effect of health claims in advertisements.

According to studies of the Brightlands institute and Food Claims Centre Venlo (FCCV), there is a big gap between nutritional science and food law regarding health claims utilized by advertisers (Waard, 2020). Current food policy developments allow marketers to use misleading product- and brand-claims. This results in the use of health claims to gain trusts and attention from consumers, even when the stated claims are groundless. Klopčiča, Slokan and Erjavec (2020) studied how health claims lead to increased consumer trust towards brands and products. According to their findings, dispositional trust in formal authorities and the social system are important influences. They determined that consumers who did not trust the social system also did not trust health claims made by brands on packaging or in online advertisements. Comparing their findings to the earlier discoveries of Waard this is concerning as brands often use loopholes around laws from formal authorities and nutritional science (Klopčiča, Erjavec, & Slokan, 2020). For the current study, it entails

that even ungrounded health claims are expected to lead to increased consumer trust in a brand or product. Thus, even without naming the ingredients within an edible product the presence of one or multiply health claims should already induce raising consumer trust. The study results of the FCCV, Brightlands, Klopčiča, Slokan, Erjavecc and Wiendenfels are of use for the formulation of a hypothesis but are not exhaustive enough to formulate statements on influencing consumers in the pet food sector as all named studies are only focused on the human food industry.

H2: The impact of claims on purchase intentions is mediated by trust.

2.4 Social norms

As mentioned Bosch, Vervoort and Hendriks (2016) found that sustainable alternatives to raw meat diets for dogs did not appeal to consumers due to ignorance and lack of worth of mouth experience stories. The last is also mentioned by Chwialkowska (2018) who states that social norms influence one's purchase intentions towards sustainable diets. Along those lines, it is suspected that by socialization acquaintances, family and/or friends will influence purchase intentions towards specific brand claims as an external factor.

Forbes (2013) used a sample of almost 250 consumer purchases to analyse which types of products, within different price ranges were bought based on the recommendation of a friend or acquaintance. Interestingly, Forbes found that approximately 42% of all purchases were based on recommendations of vague acquaintances rather than someone his respondents did not know but who does have relevant academic knowledge on the matter. Thus, the effect of social norms was proven to be rather large for his sample. On average Forbes's respondents were 28 years old and half of them were women. He measured social influence through the social media platforms Facebook and LinkedIn. A few years earlier Iyengar was interested in a similar research question but used a different method. With the help of Cyworld, an online social networking site in Korea, he automatically created a small personalised experiment for over 200 users. Iyengar (2009) found that especially middle-status consumers with up to 1000 connections respond positively to friends' purchase experiences.

H3: Social norms have a positive impact on purchase intentions.

Consumer surroundings are expected to influence or moderate the effect of health claims on purchase intentions. This due to Bosch, Vervoort and Hendriks, Forbes, Iyengar and Chwialkowska's findings that consumers believe that something is good is easily strengthened by others who express positive experiences and recommendations by acquaintances. Thus, positive experiences from friends are expected to positively strengthen the effect of health claims which will increase purchase intentions. Moreover, the findings above are summarized and confirmed by the Rossi and Krey (2018) who exploited two studies for the Academy of Marketing Science (AMS) and the World Marketing Congress (WMC). They found that global customers can be bond to a brand through proof of customer satisfaction from previous buyers. Continuous engagement with previous customers causes potential customers to rethink how valuable a brand can be for their purposes.

As Puccinelli and Tickle-Degnen (2004) state, social norms can have a moderating effect on behaviour when communication of direct experiences is missing or impossible (in case of the current survey because the test product is non-existing). However, this effect can solely happen if there are pre-existing beliefs on group expectations regarding the behaviour. In the case of the current study, this would mean that social norms in the form of group expectations regarding environmental issues could moderate the effect health-specific claims potentially have on purchase intentions.

H4: Social norms moderate the effect of claims on purchase intentions.

2.5 Anthropomorphism and the puppy dog effect

As Urquiza-Haas and Kotrschal (2015) state, anthropomorphism is a phenomenon of when humans attribute intention and mental states similar to their own to living and non-living entities. As mentioned, especially millennials tend to increasingly treat their family pets like they would care for infants. Urquiza-Haas and Kotrschal dedicate this to anthropomorphism. They found that humans started identifying cognitive mechanisms in animals since the beginning of the 90s. Automatically this information led to the idea that especially family pets have mental states such as humans and thus became part of the human social domain as individuals. In short, anthropomorphism stands for the attribution of human characteristics or behaviour to any nonhuman entity (Urquiza-Haas & Kotrschal, 2015). Are family pets most frequently targeted by anthropomorphism? Or did they become family pets because of anthropomorphism? According to Borgi and Cirulli (2016), emotional

relationships between family pets and humans are stronger than relations between humans and other/wild animals due to the baby schema effect.

“It has been hypothesized that the presence of infantile physical and behavioural features in companion (or pet) animals (i.e., dogs and cats) might form the basis of our attraction to these species.” (Borgi & Cirulli, 2016)

The two researchers hereby point out those features’ family pets poses which are similar to human infants such as big eyes, chubby body with short limbs and a small nose. Being exposed to someone or something that possesses those, or similar physical features, leads to the release of two organic chemicals in the human brain. Dopamine and oxytocin, those two chemicals make humans experience a feeling often described as ‘falling in love’ (Lehmann, Huis in't Veld, & Vingerhoets, 2013). The human brain releases these chemicals on purpose, they lead to altered behaviour towards the living or non-living entities who poses the required physical features. This altered behaviour includes an unexplainable wish to be close, to take care and to protect. Borgi and Cirulli (2016) state that the baby schema effect explains an increasingly improving physical and emotional treatment of dogs.

In 2004 Gaita published his book “The Philosopher’s Dog” in which he explains human-animal relationships from a philosophic perspective. According to Gaita (2004), he experienced a culture altering period of thirty years in which dogs evolved from necessary items (as a guard dog or sheepdog for example) to family pets. Gaita uses a specific form of anthropology to describe his perspective on anthropomorphism:

“Some readers will be surprised that there are no references in this book to extensive empirical studies of the capacities of animals, especially of clever wild animals like dolphins and apes. The absence of such references is not an oversight. The personal form of the book expresses one part of its mildly didactic purpose, which is to show how much one can learn about our relations to animals (including our moral relations to them) by reflection of a philosophical kind on our lives with ordinary domestic pets—birds, dogs and cats.” –

Raimond Gaita (2004).

As biological anthropologists use systematic studies of non-cultural aspects to study how humans and near-humans (apes and other primates) change through time, one could use

this field of anthropology to determine adaptations in the human brains. Biological (or physical) anthropology, as the name suggests, focuses primarily on physical adaptations. Such research is typically done in natural settings amongst non-human primates. Along those lines, studies carried out by biological anthropologists have been useful to develop theories such as the baby schema effect (BSE). It helps researchers to create or substantiate theories with biology-focused research into human brain activities (Lehmann, Huis in't Veld, & Vingerhoets, 2013) (Firth, 2008). Both of the mentioned theories suggest that anthropomorphism has a positive effect on the physical and emotional treatment of dogs. The current study will include a short analysis of the potential positive effect anthropomorphism can have on purchase intentions.

Method

3.1 Survey experiment

Since the current study is interested in whether a certain independent variable (brand-specific claims) influences a dependent variable (purchase intentions towards sustainable dog food brands) a quantitative research method is chosen to conduct the research. This will be a comparison in the effect of an element and thus an experiment is suitable. More specifically, a unifactorial experiment. With a unifactorial experiment one can examine different components of one factor (Collins, Dziak, Kugler, & Trail, 2014). In this case, the factor is brand-specific claims and the effect of its components on purchase intentions towards sustainable dog food brands will be measured. There will be three components: health claims, environmentally beneficial claims and neutral claims. The last is included as a control condition to evaluate consumer purchase intentions without health and environmentally beneficial claims. This is required to compare the presence of health or environmental claims and their absence. Claims are to be manipulated in the experiment. This experiment will include two types of brand-specific claims and one control condition with a neutral claim. Thus, this is a unifactorial design with 3 different experimental conditions (health claims vs environmental claims vs no claims).

An experiment has been chosen since it helps to determine the effect of an independent variable by controlling possible factors. In the case of the current study the effect of health, environmental and neutral claims on purchase intentions. Subjects are to be randomly assigned to an experimental condition which allows us to attribute variation in the dependent variable to the independent variable (Abdi, Edelman, Dowling, & Valentin, 2009). Usually, increasing the number of independent variables in experimental designs increases external validity. However, as the theoretical framework describes the current research focuses on the influence of health and environmental claims which both fall under brand-specific claims. To ensure internal validity, standardized steps will be followed as described in the next section. For external validity, a moderator will be included in the experiment. Namely, social norms as this may influence the strength of the brand-specific claims as suggested in the theoretical framework by Chwialkowska (2018). In addition, a control variable 'age' will be added, since it has been found that millennials are more sensitive to health claims than other age groups, and as mentioned randomization will be used to assign experimental conditions to subjects to reduce sample bias (Wood, 2016). To certify the relation between our independent and dependent variables a manipulation check will be

included. The mediator will be trust as we expect brand-specific claims to increase one's trust in a brand and thereby increase purchase intentions towards that brand.

3.2 Sample

The current study is interested in dog owners. To be more specific dog owners who are at least 18 years old and so respondents younger than 18 were to be filtered out, post data collection and pre data analysis. There is a special interest in Western Europe because, according to Tisell (2018), Western Europe accounts for over 39% of all pet food industry revenue. This percentage is higher than anywhere else in the world. With a database which includes more than 100 market-leading pet food companies the findings of Tisell serve as justification to focus on Western Europe. However, a comparison between inhabitants of Western European countries and other countries could be interesting. In addition, it is near impossible to solely gather responses from a specific group of people. Thus, people from other countries are free to respond to the survey as well. Mentioned above is the interest in people who are 18 years old or older. This because we are interested in dog owners. As Wood (2017) states, there are little to no dog owners under the age of 18. People younger than 18 more typically own a dog with their parents and are unlikely to purchase dog food. In the survey, a question related to one's age leads to a continuous variable.

There are many different kinds of dog owners. The current study is focused on the most regular types of dog ownership. This includes family pet owners, sports dog owners, show dog owners and others including previous dog owners.

3.3 Data collection

Much like a social network analysis, the four specific groups of dog owners were reached out to via one social media platform. To reach the target group as a whole the researcher collected data through both private and public Facebook pages each focused on one of the specific groups. Namely, 'Dogs lovers', 'Dogs are family' and 'Dogs make me smile' to reach out to family pet owners. Dog lovers has 9,2 thousand members from all over the world both male and female. The last also applies to Dogs are family with 18 thousand members and Dogs make me smile with 47 thousand members. Interestingly, almost half of the group members out of those three groups mentioned to not have a dog of their own. Also, the response rate was low.

Sports dogs owners form the body of three other groups ‘Verantwoorde powerbreed bazen’, ‘Powerbreeds of the world’ and ‘Dog agility training competition and fun’.

Powerbreeds of the world has 1,4 thousand members from all over the world, those members are all focused on dog sports such as flirt poling and track running as well as the members of the other two sport dog groups which have 1,2 thousand and 2,4 thousand members.

Contacting sport dogs’ groups with this survey initially led to a backfire of negative feedback¹, this was not the case for other types of dog owners.

Aiming to recruit show dog owners as well, the Facebook group “Dog showing and handling” was contacted. The group contains over 10 thousand members from all over the world whom all participate in national and international dog shows. This group has tight post restrictions and new posts have to be approved by an administrator. Therefore, it took longer before the respondent inquiry got online than it did in other Facebook groups.

Every Facebook group and its members were contacted in the same manner. By posting a request stating: “Hello! I need dog owners to fill in my survey. Per 50 respondents I am giving away a pet portrait to thank you. Please fill in the survey and respond done below after you’re finished”. These were all posted from the researcher’s personal Facebook account and all post contained the same link to the survey. No additional information about the survey was given except for private, one on one chats concerning the purpose of the study, after respondents completed the survey already. All Facebook groups were connected on the same day and in the same hour on day one of data collection. All groups were connected a second time with the same message on the third day of data collection.

Furthermore, the social media platform Instagram was deployed to gather more respondents on the questionnaire. The researcher owns an account focused on dog owners with over 10,1 thousand worldwide followers. The account is named @mojoorocks and only 2% of its followers are under the age of 18 years old and therefore not suitable as respondent for the questionnaire (figure 3.1). Potential respondents were contacted by two actions. First, by posting about the survey and putting a request in the stories (attachment 2). The message was similar to the posts on Facebook. Second, by commenting under posts using the hashtags #doglover and #mydog. At day three @mojoorocks was blocked for a week by Instagram for commenting the same message under too many posts on one day. Results of the intensive data gathering process showed as there were already 400 responses by the end of day three. Due to a determination to gather as many respondents as possible for increased reliability of the study a third social media platform was put to use, although in comparison to the other platforms less intensively. At LinkedIn, two posts were shared calling for English speaking

¹ See chapter 3.6 for more information on negative participant feedback.

dog owners to fill in the survey. As LinkedIn is considered to be a business community rather than an entertainment platform like Instagram there were no rewards promised to respondents.

Quite interesting, at 420 responses only 88 (21,95%) appeared to be male and 329 (78,33%) female. Those numbers come close to the gender ratio of the following base of @mojoorocks (Figure 3.1). A call for male dog owners was set up on both Facebook and Instagram resulting in a slightly improved end ratio of 3,3:1 (115 (22,91%) male respondents.

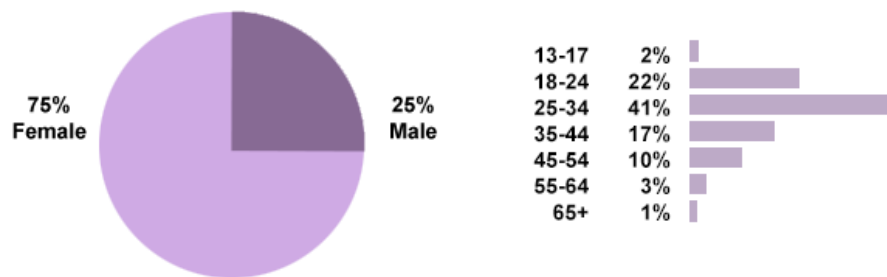


Figure 3.1. following statistics @Mojoorocks at Monday, May 2020

Every platform used for data collection has members of all ages. As seen in figure 3.1 only 2% of the Instagram follower base of @Mojoorocks is too young to fit this studies population description.

The population, dog owners in Western Europe between 18 and 99 years old, is estimated to contain over 80 million humans (Fediaf, 2019). The aim was to gather a response rate of over 250 to improve the research’s reliability. This was a realistically achievable aim since it would mean only 0,2% of the total amount of all group members had to fill in the questionnaire. Finally, 1011 responses were recorded (674%) of the minimum amount set for the current study (100% : 150*1011). However, a lot of participants did not finish the survey. Therefore, after data cleaning only 522 responses remained. A high number which improves the reliability of the outcomes of the current study.

The survey was distributed through convenience and snowball sampling. The main reason for convenience sampling through social media platforms was that it was known that the population was to be found in specific social media groups and could be easily contacted in this manner. In addition, this method took little time and no money. Because the number of contacted groups and platforms is relatively wide the impact of possible bias in data gathering was limited. Snowball sampling occurred automatically as respondents started to

share the survey with other dog owners on their own initiative. A risk of snowball sampling is the representativeness of the sample. However, snowball sampling was not the main sampling method.

3.4 Sample demographics

Originally (pre-data cleaning) 1011 responses were recorded in the data set. Of those 1011 only 522 remained post-data cleaning. 114 participants answered to be male (21.8%), 378 to be female (72.4%), 1 found the available genders non-inclusive and three preferred not to answer this question. As expected, most participants are from within Western Europe as figure 3.2 displays. 412 participants live within Western Europe (78.9%) while only 78 come from other regions in the world (14.9%). Pre-data cleaning the youngest respondent recorded to be 15 years old. Post-data cleaning the four youngest participants were 18 and the two oldest still 74. The mean age was found to be 36 years old ($SD = 13.42$).

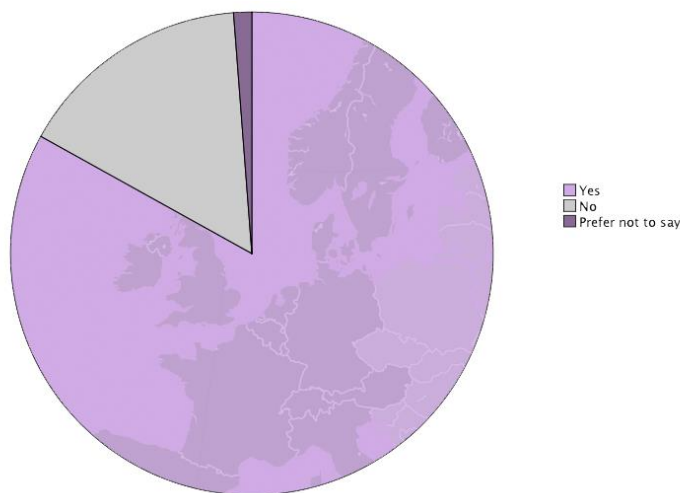


Figure 3.2. sample living area demographics

This research required a sample of people aged 18 or older. This age limitation was set because younger people are not targeted by pet food brand advertisements. In addition, teenagers and children often do not possess a dog of their own leaving the purchase decision regarding dog food to their caretakers or parents. The questionnaire is fully in English and therefore participants who master at least an intermediate (B1) CEF level were needed. During survey distribution participants were asked in English to participate, filtering out potential participants who did not understand the language, before they opened the online

questionnaire. As dog owners come from all possible backgrounds there were no further requirements regarding their level of education, living area or knowledge of dog food diets.

All respondents under the age of 18 years old were removed from the data set. As there were only five respondents who did not match the age requirement this did not have a large impact on the final number of respondents. Removing all the respondents who stopped filling in the survey before answering the main variables decreased the number of responses. The choice was made to set the line when more than half of the survey had been done and thus when there was already valuable information to be found in the respondent’s answers. At this point from the total of 1011 responses, 522 were left in the data set. Thus, only 51,6% of all responses survived the data cleaning process.

As seen in Table 3.1, the frequencies of responses per condition are equally distributed even after data cleaning. With a slightly higher amount of responses on the health claims manipulation with 177 records (33,9%) compared to 173 (33.1%) for environmentally beneficial claims and 172 (33.0%) for neutral claims which form the control group with no actual manipulation. In total 55 participants stated to be vegan. They were close to equally dispersed amongst the two manipulation groups and control group as 18 vegans saw health claims, 16 who saw environmentally beneficial claims, and 21 were presented neutral claims.

Table 3.1
Data output frequencies of “Conditie”

	Frequency	Percentage
Health	177	33.9%
Environment	173	33.1%
Control	172	33.0%

Note. N = 522

The actual data collection period took ten days as the first response was collected at the first of May 2020 and the last at the tenth that month. The highest amount of usable responses was collected on day two of data collection (203 responses after data cleaning). After the fourth day, the active spread of the survey was ended. More responses after that period came in due to earlier requests which were still online on the used social media platforms.

During data collection, it was communicated that the purpose of the study was to investigate the pet food industry and advertisements. It was told that data collected was confidential, anonymous and for research purposes only. Concept measurement was fixed for all participants and after a basic question indicating the type of dog owner dispositional trust was the first concept to be measured followed by anthropomorphism and the manipulations. Post manipulations the manipulation checks were presented and trust in the brand (situational trust). Attitude towards the brand and purchase intentions were measured followed by social norms as last concepts before questions regarding participant demographics.

3.5 Operationalization

3.5.1 Operationalization of trust

Trust can be measured in both experiments and surveys according to Naef and Schupp (Naef & Schupp, 2009). They advise to never only measure trust in something but also trust as a personal attribute. Thus, one should include multiple indices of trust measures. For this research, we will therefore measure trust in a brand as well as dispositional trust. Bednarczyk (2013), called these dimensions of attitudinal trust and behavioural trust and substantiates the conclusion of Naef and Schupp that both are important to include when measuring trust. Naef and Schupp (2009) researched possible indices of trust measures and determined unreliability, misleading and scepticism as key pillars to measure dispositional trust. Attachment three shows questions as suggested by those three studies with recommendations of word use from Yamagishi (1994) in mind to measure trust completely and adequately. In addition, Leach, Ellemers and Barreto (2007) suggest measuring morality and competence separately as both are indicators of situational trust. Situational trust was measured with three separate items for integrity and three items for competence and combined those six items form a base for situational trust in an organization or brand. Morality is considered to be the most important characteristic required for a positive evaluation of something or someone according to Leach, Ellemers and Barreto (2007). Within the questionnaire, morality has been measured with three items: honesty, sincerity, trustworthiness. Competence was measured by evaluating how much the respondent rate competence, intelligence and skills of an organization. All six items regarding a participant's trust were to be answered with a 7-point scale from 7=very good to 1=very bad. An average variable was conducted for dispositional trust and one for situational trust after data collection. For correct measurement dispositional trust needed to be measured before manipulation and situational trust after manipulation

(Bednarczyk, 2013). The average scale for dispositional trust had a Cronbach's Alpha of .87 which indicated good reliability of the scale. In addition, the Cronbach's Alpha of situational trust was .86 which demonstrates high reliability of the second scale regarding participants trust as well.

3.5.2 Operationalization of purchase intentions

Morwitz (2012) measured the correlation between sales and purchase intentions by summarizing 60 years of conducted research. According to Morwitz (2012), purchase intentions are best measured by a single scale question with seven options. Spears and Singh (2004) add another perspective by suggesting an additional question into consumer attitudes towards the brand of question. As they suggest that consumer attitudes influence the purchase intentions this suggestion will be taken into account in the survey to measure purchase intentions. Thus, four questions are included in the survey, post manipulation, to measure consumer attitudes towards the product. Three questions based on the knowledge of Morwitz (2012) measuring purchase intentions directly and one question in line with the findings of Spears and Singh (2004) measuring participant attitude regarding purchasing the product shown in the advertisements. Before data analysis, those four items were combined into one variable indicating participants average purchase intentions. This was required to study the main aim of this research and measure purchase intentions determining someone's interest in purchasing the product. The average scale for purchase intentions had a Cronbach's Alpha of .86 indicating good reliability of the scale.

3.5.3 Operationalization of social norms

According to Beck and Ajzen, (1991) social norms are constructed by group attitudes towards a certain behaviour or thing. Indirectly and directly social norms influence one's purchase intentions. Beck and Ajzen also mention that social norms can directly influence behaviour. In line with these findings' four questions are included in the survey with a Likert scale to indicate the strength of social norms. Here, the separate items were combined into an average variable as well. The average scale for social norms had a Cronbach's Alpha of .87 indicating good reliability of the scale. As Beck and Ajzen (1991) mention one's moral obligation also has a relatively high impact on purchases. Thus, this could not be neglected and is also added to measure the impact of social norms.

3.5.4 Operationalization of anthropomorphism

Within the survey, there were seven items included with the sole purpose to measure the level of anthropomorphism a respondent experiences towards his or her dog(s). All seven items are based on the findings of Waytz, Cacioppo and Epley (2010). Respondents were offered 1 (strongly disagree) to 7 (strongly agree) Likert scale answers to indicate the extent to which they agree or disagree on statements regarding their dog. If they believe that their dogs have free will, intentions, experiences emotions, has a mind of its own, can be considerate, thoughtful and sympathetic. An all anthropomorphism items covering variable was created to enable conducting analyses with participants average level of anthropomorphism. This scale was found to be reliable as Cronbach's Alpha was .87.

3.5.5 Stimulus material and manipulation checks

The stimulus material in this study includes three advertisements. One stating health claims, one stating environmental beneficial claims and one listing neutral claims for comparison (attachment one). Advertisement one displays two health claims and advertisement two shows two environmental claims. All three advertisements feature one and the same neutral claim. Advertisement three only shows this one neutral claim.

To measure if our manipulation works a manipulation check is required. Health claims and environmentally beneficial claims were measured. With the manipulation check it was measured if the advertisements are perceived as intended (Allen, 2017). Two questions with a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) were included. The first asking if respondents believe the product to increase a dog's health and the second asking if they believe that this product will reduce a dog's ecological paw print.

As mentioned before the current study aims to determine the potential influence of brand-specific claims on purchase intentions towards dog food. A survey including an experiment has been used to gather data from dog owners worldwide. The following sections will elaborate on the manipulations put within the questionnaire.

To ensure no other thing than the brand claims themselves would differ between the three versions of the survey a brand name, logo and advertisement has been created three times for this study. The first version included a manipulation as well as the second version. A third and final version kept neutral for comparison. As seen in attachment one, all versions of the advertisement contain the neutral claim "delicious taste". In addition, the two manipulated versions contain two additional brand-specific claims.

Version one of the manipulations displays two health claims. Namely, the claims to support a strong immune system and to main healthy digestion. The typical health claims one encounters most on current dog food products such as shinier coats and healthier skin are consciously not cited on the advertisements as Alt (2019) found that these are all expected side effects of healthy dog food. The claims which were used in the health claims advertisement are expected to lead to those effects eventually. The ingredient list was made unreadable on the packaging of the dog food shown in the advertisement on purpose. As Zwier (2008) found that ingredient preferences are linked to perceptions of healthy and unhealthy dog foods. Thus, stating ingredients would be likely to impact purchase intentions as well, if not even stronger, than brand-specific claims could. Corrupting the measurement thereof.

The second advertisement features two environmentally beneficial claims besides the neutral claim, which states that the product tastes good. It mentions to reduce the ecological paw print and to be good for the planet. As Hansen (2010) found the use of environmentally friendly claims in advertisements will only show positive effects on purchase intentions if plausible for the product. Along these lines, a statement is made above the environmental claims as well as the health claims in advertisement one. Namely, that the claims are scientifically proven. Theoretical substantiation for environmentally beneficial claims was hard to find. As purchase intentions towards environmentally friendly dog food have never been studied properly. Thus, the claims were built on the work of Kahraman and Kazançoğlu (2019) who found that environmental concerns and perceived green image did influence purchase intentions towards personal care products.

As mentioned above a manipulation check was included in the survey to measure if the manipulations achieved their specific purpose. Respondents who received advertisement one (health claims) were asked if they believe the presented product to have a positive effect on their dog's health. Those who got the second version of the survey (environmentally beneficial claims) were asked if they do or do not believe that the product can reduce a dog's ecological paw print.

3.5.6 Validity and Reliability

According to Winter (2000), a researcher achieves validity of his or her research when the “means of measurement are accurate” and if they are “actually measuring what they are intended to measure”. The current study wishes to measure the relationship between

multiple variables. To increase the validity three steps were taken. First, it was determined, through thoroughly analysing already existing literature, how to accurately and scientifically sound measure each variable. Along those lines, already existing scales were used and, when needed, altered to use in the survey. Also, those who did not belong to the studies population were excluded. Face validity, the extent to which the items in a survey are subjectively covering the concepts they intend to measure, is viewed by respondents as the transparency or relevance of the survey (Junes, 2018). Utilizing a pre-test, face validity was ensured. By gathering respondents from different social media platforms and within those platforms from different groups of interests, selection bias and sampling error were minimized. Thus, the sample became highly diverse in respondents backgrounds (age, living area, education level) which increased the external validity so that the sample is a sufficient representative of this studies population.

Reliability of measurements is the degree to which the measure is consistent. Thus, a study is reliable if the same results occur when the study is repeated under the same conditions (Shuttleworth & Wilson, 2009). For both quantitative and qualitative studies reliability is of high importance because reliability ensures that the results are due to the study and not spontaneous. To ensure that the current study could be replicated and repeated a pre-test was done to confirm if all survey items are understandable for respondents.

Cronbach's Alpha was run for all post-manipulation variables and measured all reliable ($\alpha = .935$). As $\alpha > .70$ the internal consistency is approved. Separately deleting one or more of the tested variables would not improve Cronbach's Alpha. Only one variable would lead to a higher score if deleted. It is chosen not to do so since Cronbach's Alpha will only increase by .001. All included scales used for this study have high values of Cronbach's Alpha which indicates adequate levels of internal consistency (Wadkar, Singh, Chakravarty, & Argade, 2016).

3.5.7 Pre-test

To ensure all measurements for sufficient reliability and validity of the current research a pre-test has been carried out before the full-scale survey was implemented. Ten respondents were selected from 25 to 56 years old through purposive sampling. This due to time limitations. The test-respondents all varied in age, gender and income. However, the majority (7 out of 10) did live in the Netherlands making them less representative of the target population as wished. This has been done on purpose to enable quick and face-to-face

contact with respondents during and after they finished the initial survey. Respondents had to finish the survey first before going through the questions with the researcher. Concerns and thoughts could be shared about the meaning of each question and if it was understandable or not. In addition, test respondents were asked if any questions are uncomfortable to answer.

To improve the final survey test-respondent feedbacks were taken into account. Another group/type of dog owner was included to make the answer options more inclusive. The order of items within blocks was adjusted so that the concept of interest was clearer for respondents. Also, the need to inform respondents that the survey was in English only arose. Two test-survey participants indicated to be unaware of that and that it was an issue for them. The biggest issue test-respondents mentioned was the length of the survey. It was considered to shorten the survey. However, all items proved to be of use and thus no items were removed in the final questionnaire. Qualtrics did automatically estimate a time required to finish the survey seriously which was 10 minutes. After the pre-test, a more secure estimation could be made which came on 7 minutes average. This information was useful to mention while distributing the survey online. Responses on the pre-test were indicated by letting respondents fill in 'test' as the answer on the item to indicate a respondents age and so these ten survey responses could be easily deleted before starting distribution of the final survey.

3.6 Ethical considerations

Due to the distribution method of the questionnaire potential participants without access to the internet were excluded. This was not a problem since the study is interested in consumer responses to brand-specific claims in online advertisements. In addition, face-to-face distribution could endanger participant anonymity. Anonymity was of high importance for this study as attitudes towards social norms are hard to measure without the promise of anonymity as well as environmental considerations since both are sensitive topics in contemporary society. Easy demographic questions were only asked at the end of the survey and were deliberately made so that respondents would be aware that those types of information could never be traced back to them.

“Please be aware that your participation is completely voluntarily. There are no correct or incorrect answers. Data collected from the survey are confidential, anonymous and for research purposes only.” (Hoppezak, 2020)

As mentioned earlier Qualtrics did automatically register doubtfully retraceable personal information but those variables were deleted instantly and completely. Respondents were also informed directly at the survey introduction that they were free to leave the survey experiment whenever they pleased. As much transparency was given about the study and during the questionnaire about the questions without an overflow of information which could bias participants answers. The high level of openness increased the changes of participants answering all questions truthfully (Matthews & Ross, 2010).

According to Matthews and Ross (2010), respondents may experience a feeling of exclusion when there are questions which are not fully understood. Therefore, difficult language or jargon was avoided at all costs in the questionnaire. Not doing so could form a risk for the validity of the study as questions which are not understood will be filled in wrong. There was however no solution found to support different levels of English amongst respondents. Making the survey available in another language as well, for example in Dutch, would give Dutch respondents a significant head start compared to respondents with other mother languages than Dutch or English.

Since we speak of manipulation in the questionnaire, as each participant is presented one out of three non-existing online advertisements. Koppelman (2004) states that it is necessary to include the principle of minimal risk. Minimal risk is an international ethical standard in research for moral and social purposes. It works as a protection mechanism for research participants and as a guideline for researchers. Along those lines, emotions were only manipulated to such an extent that it was ensured to not be traumatizing or shocking to anyone. For this purpose, the advertisement was kept as 'clean' as possible and featured two dog breeds which are totally different and thus not excluding. The two included breeds are representatives of big as well as small breeds, longhaired and shorthaired, sports dog but also show dog and family dogs.

Contacting members of sport dogs' groups during data collection led to a backfire of negative feedback indicating participants discontent. Members were very passionate about dog food and the nutritious aspects. Around 15 messages were sent to the researcher stating that the survey was bad because they could not find any ingredients in the advertisements. In a private chat, as to not influence others who had not done the survey yet, the purpose of the study and the lack of ingredient lists in the survey was explained. Luckily, this transformed the angry attitudes into positive, interested and understanding attitudes. A list containing eighteen names was saved at the end of the data collection period. All names of interested people who wished to receive an update on the study results after the analysing process.

Results

In this chapter, the results of the data analyses are reported, starting by presenting the means, standard deviations and zero-order correlations between the main variables. This is followed by a comparison of vegans and non-vegans. The manipulations are tested with an ANOVA manipulation check and after that, the results of the hypothesis testing will be presented. In total there were four hypotheses formulated and studied through multiple one-way ANOVA tests, a linear regression analysis and univariate analysis.

Each of the variables addressing the studies hypotheses and research question is part of an overall concept. Thus, they are merged into a new variable per concept which displays the average per participant as mentioned in the operationalization chapter. The composed average variables per concept are presented with their means and standard deviation as well as the zero-order correlations in table 4.1. For example, all seven items which measure anthropomorphism are merged into one new variable for average anthropomorphism.

Respondents experienced moderate levels of social norms ($M = 3.91$, $SD = 1.16$). The average purchase intentions remained relatively low with a mean of $M = 3.16$ and a standard deviation of $SD = 1.48$. Furthermore, participants displayed moderate levels of situational trust ($M = 4.08$, $SD = .95$). The overall level of anthropomorphism towards dogs was relatively high ($M = 5.79$, $SD = .84$), meaning the participants attitudes towards dogs were rather positive. Dispositional trust as a personal attribute was relatively high as well indicating high levels of overall trust ($M = 4.98$, $SD = .72$). All listed variables showed correlations with the mediator trust as well as the outcome variable purchase intentions.

Table 4.1
Means, Standard Deviations and Zero-Order Correlations

Measure	M	SD	1	2	3	4	5	6	7
1. Dispositional trust	4.98	0.72	-						
2. Anthropomorphism towards dogs	5.79	0.84	.07	-					
3. Situational trust	4.08	0.95	-.09	.02	-				
4. Purchase intentions	3.16	1.48	-.11*	.02	.70**	-			
5. Social norms	3.91	1.16	-.00	.08	.05	.05	-		

Note. $N = 522$. * $p < .05$, ** $p < .01$, *** $p < .001$

4.1. Manipulations

As mentioned in chapter 3.5.5 a manipulation check was included in the survey to test the effectiveness of the health and environmental claims. If the manipulation was successful respondents who were in the health claim condition score more positive on the health manipulation check. This would indicate that they saw that the advertisement included health claims. Respondents who received the questionnaire including environmentally beneficial claims should score more positive on the manipulation check for environmental claims.

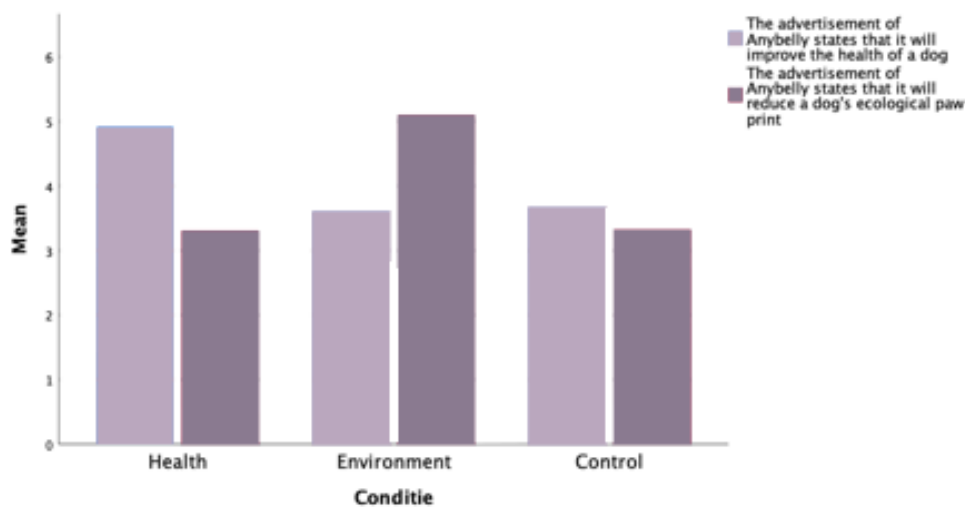


Figure 4.2. Clustered bar means of all manipulations for manipulation check for health claims and manipulation check for environmentally beneficial claims

A one-way ANOVA was conducted to examine the effect of the manipulation on the manipulation checks. Here the dependent variable is the two manipulation checks. The outcomes show that when health claims were presented participants were aware of this with a much higher score ($M = 4.92$, $SD = 1.35$), $p < .001$ than the presence of environmental claims ($M = 3.60$, $SD = 1.66$), $p < .001$ or neutral claims ($M = 3.66$, $SD = 1.47$), $p < .001$. This indicates that the health claims were perceived as intended $F(2, 519), 43.376, p < .001$. The second manipulation check, environmentally beneficial claims, worked out as intended as well, $F(2, 519), 86.701, p < .001$. Participants which were shown environmentally beneficial claims displayed a higher score for environmental claims ($M = 5.10$, $SD = 1.60$), $p < .001$ than they did on the health claims ($M = 3.31$, $SD = 1.36$), $p < .001$ or neutral claims ($M = 3.32$, $SD = 1.41$), $p < .001$. The manipulation of health claims and the manipulation of environmentally beneficial claims were successful.

4.2 Hypotheses testing

In this part of the results chapter a discussion of the hypotheses testing will be presented. The results are compared to findings in the theoretical framework which led to the creation of the hypotheses. In total there are four hypotheses to discuss.

4.2.1 Strength of claims

Hypothesis number one concerns the strength of health claims in comparison to environmental claims on consumers purchase intentions.

H1: Health claims lead to higher purchase intentions than environmental claims (or no claims).

A one-way ANOVA was conducted, which requires a categorical independent variable with more than two levels or categories. ANOVA revealed a significant main effect for brand-specific claim groups on average purchase intentions, $F(2, 511), 5.379, p = .005$. Bonferroni post-hoc comparisons revealed that participants that were shown health claims score higher on purchase intentions ($M = 3.42, SD = 1.11$) than participants who observed the neutral claims ($M = 2.90, SD = 1.33$), $p = .005$. However, the conditions did not significantly differ between control and environmental claims ($M = 3.16, SD = 1.57$), $p = .313$. The first hypothesis is accepted as health claims are proven to lead to higher purchase intentions than environmental claims or neutral claims. The average purchase intentions did not differ significantly between participants who were shown health claims ($M = 3.42, SD = 1.11$) and participants who saw environmental claims ($M = 3.16, SD = 1.57$), $p = .303$.

4.2.2 Trust is a mediator

It was predicted that trust works as a mediator between the impact of brand-specific claims and purchase intentions in hypothesis two. As Baron and Kenny (1986) state, there are conditions to be met to support mediation. The independent variable, in this case brand claims, should significantly influence the dependent variable, purchase intentions, even without the mediator. In addition, for a mediating effect, the independent variable has to significantly influence the mediator (trust) in (Figure 4.1) and then the mediator has to influence the dependent variable which requires a regression analysis. First, an ANOVA was conducted to determine the influence of claims on trust ($F(20, 493), 27.145, p = .06$). As $p >$

.05 there is no mediating effect. It was found that the different claims did not influence trust, this does not exclude the possible effect trust has on purchase intentions.

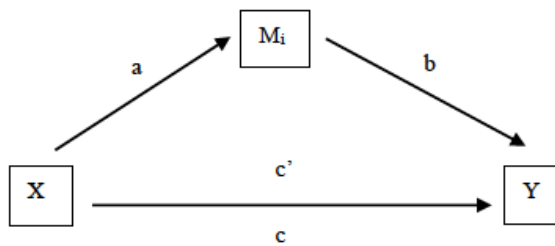


Figure 4.1 Conceptual diagram of simple mediation

As for the possible relation between trust and purchase intentions a regression analysis was conducted. A significant regression equation was found ($F(1.512) = 272.811, p < .001$), with an R^2 of .35. 35% of the variance of purchase intentions can be explained by trust. The standardized coefficients beta is high, high trust therefore indicates high purchase intentions ($\beta = .59, p < .001$). There is however no mediation, as brand-specific claims have no significant effect on trust. This means that the second hypothesis is rejected: The impact of claims on purchase intentions is not mediated by trust.

4.2.3 Social norms

The next hypothesis (H3) proposed that social norms have a positive impact on purchase intentions. A linear regression analysis showed that social norms do not have a significant impact on average purchase intentions ($F(1.497) = 1.347, p = .246$). Thus, we have to reject H3, as social norms do not have a positive impact on purchase intentions. This did, however, give no answer on the fourth hypothesis (H4) regarding social norms as moderator and thus another analysis was required as well.

H4: Social norms moderate the effect of claims on purchase intentions.

A univariate analysis was conducted with purchase intentions as the continuous dependent variable, social norms as a continuous moderator, and the manipulation of claims as a categorical independent variable. The main effect of manipulated claims did not have a significant impact on purchase intentions, $F(2,493) = 1.83, p = .161, \text{partial } \eta^2 = .007$. The main effect of social norms is also not significant, $F(1,493) = 1.59, p = .208, \text{partial } \eta^2 = .003$. The interaction between the manipulation and social norms, the moderation effect, is

also not significant, $F(2,493) = 0.63, p = .534, \text{partial } \eta^2 = .003$. The hypothesis that social norms moderate the effect of claims on purchase intentions needs to be rejected.

4.2.4 Additional findings

Anthropomorphism and purchase intentions

To test the potential positive influence of anthropomorphism on purchase intentions a regression analysis has been used as this analysis enables the use of two Likert scale variables. It is expected that higher levels of experiencing anthropomorphism lead to higher purchase intentions. Hypothesis five was therefore as followed: *Anthropomorphism has a positive effect on purchase intentions*. A regression analysis showed a significant regression equation ($F(1.512) = .168, p = .68$), with an R^2 of .37. Thus, 37% of the variance of purchase intentions can be explained by anthropomorphism. The standardized coefficients beta is low ($\beta = .02, p = .68$). Therefore, there is no relationship between anthropomorphism and purchase intentions. We accept H_0 meaning there is no association between the two variables in our population. The hypothesis that anthropomorphism has a positive effect on purchase intentions is disproved.

Vegan or not

As it a known dilemma for vegetarians if they should or should not provide their pets meat inclusive diets (Herzog, 2020) participants were asked about their own dietary choices in the questionnaire in two questions. Of all answers on these items ($n = 496$) respondents noted to consume meat ($M = 4.75, SD = 1.58$) more often than fish ($M = 3.67, SD = 1.47$). To compare vegans with non-vegans on their purchase intentions, participants who either never or rarely eat meat were grouped as vegans and compared with those who eat meat occasionally or more often. Within the sample, 55 participants were recorded to be vegan (10.5%) and 441 were non-vegan (84.5%). A univariate analysis was conducted with purchase intentions as the continuous dependent variable, veganism as a continuous moderator, and the manipulation of claims as a categorical independent variable. The main effect of manipulated claims did not have a significant impact on purchase intentions, $F(2, 490) = 1.40, p = .42, \text{partial } \eta^2 = .583$. The main effect of veganism is also not significant, $F(1, 490) = .12, p = .77, \text{partial } \eta^2 = .054$. The interaction between the manipulation and veganism, the moderation effect, is also not significant, $F(2, 490) = 1.93, p$

= .15, partial $\eta^2 = .008$. Thus, the idea that veganism moderates the effect of claims on purchase intentions is found to be false.

Table 4.3

Mean scores for purchase intentions amongst vegans and non-vegans

	Mean purchase intentions health claims	Mean purchase intentions environmental claims	Mean purchase intentions neutral claims
Vegan	3.03	3.20	2.94
Non-vegan	3.47	3.17	2.90

Note. n = 496

General discussion

Agricultural production is a direct result of consumer demands and is currently, due to increasing demands, responsible for up to 18% of all human-caused greenhouse gas emissions (Steele, 2018). A main reason for the rise in demand could be explained by raw pet diets. Adult family pet dogs which are fed raw meat diets will eat 2.5% of their own body weight in meat per day for as long as they live, which is on average 4.745 kilograms per dog in its entire lifespan (Brady, 2019). With over 900 million dogs in the world as of 2018, of which 40% receives raw meat diets, dog owners put a high demand on worldwide meat production (Fox, 2018). Worldwide improving treatments of dogs both physically and emotionally due to rising levels of anthropomorphism is why raw meat diets for dogs are so highly demanded nowadays as consumers believe that those diets are healthier for their beloved pets (Davis, 2018). Since the appeal in raw meat diets for dogs lies at health claims, managing brand-specific claims in advertisements have become increasingly important. Consequently, differences in the effects of brand-specific claims (health and environmentally beneficial claims) were investigated in the context of online advertisement management. This study aimed to determine the effectiveness of health and environmentally beneficial claims in online advertisements for more sustainable pet food diet alternatives by adding new findings to existing research on sustainability in the pet food industry. Previous studies have focussed on the development of scientific solutions supplementing meat diets with more sustainable alternatives or studying the effects of meat production for pet food on the environment (Donfrancesco, Koppel, Swaney-Stueve and Chambers, 2014). Yet, there is no study on marketing solutions aimed to increase the demand for sustainable alternatives even though demand is the main reason for continuously increasing meat production (Fleming, 2018). Along those lines, the main focus for this study was researching to what extent brand-specific claims in online advertisements can influence purchase intentions of dog owners towards pet food brands.

5.1 Key findings

This research was interested in the extent to which brand-specific claims in online advertisements can influence purchase intentions of dog owners towards pet food brands. The first hypothesis was therefore focused on the influence of health and environmentally beneficial claims and stated that health claims lead to higher purchase intentions than environmental claims or neutral claims when used in online advertisements. One of the key

findings was that this was true as participants who saw health claims showed higher purchase intentions than participants in the control condition. In addition, participants displayed higher purchase intentions after seeing health claims compared to seeing environmentally beneficial claims. Thus, H1 was confirmed by the data analysis. This finding supports the previous study of Capizzi (2019) who stated that health is the main driver for purchase decisions regarding dog food diets. Overall, health claims had a higher positive impact on purchase intentions than neutral claims. A possible explanation is that participants require more information before they can make solid purchase decisions as there were three health claims but only one neutral claim. Higher purchase intentions after seeing health claims were expected, the reason for that is the high level of anthropomorphism amongst participants. As Borgi and Cirulli (2016) found, anthropomorphism leads to increasingly improving the physical and emotional treatment of dogs which in its turn leads to higher interests in healthy dog food. However, there was no relationship found between purchase intentions and anthropomorphism. Based on the findings and previous research, it can be confirmed that health claims lead to higher purchase intentions than neutral claims, this is however not proven to be related to high levels of anthropomorphism towards dogs.

The second research objective was to determine the possible mediating effect of trust on purchase intentions. Hypothesis two stated that the impact of claims on purchase intentions is mediated by trust. H2 had to be rejected as the results showed that there was no mediating effect. Trust does not work as mediator between specific brand claims and purchase intentions. The results did show that trust influences purchase intentions. This is supported by the earlier work of Rahi, Ghani and Muhamad (2016) who state that trust does influence purchase intentions, but the strength of this effect is fully dependent on corresponding positive experiences. The current research involved non-existing brands and products, thus having positive experiences with either the brand or product was impossible. This limits the level of trust one can have in the brand or product according to Rahi, Ghani and Muhamad (2016). As current findings determined, there is no mediating effect of trust on the relationship between claims and purchase intentions. This because brand-specific claims do not strengthen the trust participants felt towards the brand or product in the advertisement. The reasoning behind this finding could also be a lack of positive experiences from other consumers with the product to support brand-specific claims. Forbes (2013) found that recommendations from other consumers positively influence trust in a product. Since the current study featured a non-existing product both own experiences and experiences from other consumers were unavailable for participants. Without, the brand claims were

unsuccessful to increase consumer trust as Forbes (2013) expected. H2 cannot be accepted because there was no mediating effect found. The findings did not support previous research by Sue Barrett (2019) who stated that trust could be created by brand claims in advertisements. This because it was found that brand claims can directly influence purchase intentions as well as trust can directly influence purchase intentions, but brand-specific claims do not influence trust as in-between factor as portrayed in Figure 4.1.

Third, this research was interested in the role of social norms on purchase intentions towards dog food. This led to a third and fourth hypothesis which state that (H3) social norms have a positive impact on purchase intentions and that (H4) social norms moderate the effect of claims on purchase intentions. A key finding was that social norms do not have a significant effect on purchase intentions. In addition, social norms did not moderate the effect of the manipulations of brand claims on purchase intentions. Thus, both H3 and H4 needed to be rejected as there were no relations found between social norms and purchase intentions or social norms and brand claims. This contradicts the findings of Chwialkowska (2018) who states that social norms do influence purchase intentions towards sustainable diets. However, Forbes (2013) mentioned that social norms only influence purchase intentions when they come in the shape of recommendations and shared experiences. The current study measured the effect of communicated social norms towards sustainability in general, instead of a specific product or brand, by family and acquaintances. Thus, this excludes the needed recommendations and experiences from friends and acquaintances to truly influence purchase intentions. These findings supplement the already existing research of Forbes (2013) supporting his findings on the influence of social norms on purchase intentions.

Additionally, it was an objective of this research to explore the influence of anthropomorphism on purchase intentions. Hence, hypothesis 5 was stated as followed: Anthropomorphism has a positive effect on purchase intentions. This hypothesis cannot be confirmed as no relationship was found between anthropomorphism and purchase intentions. This does not speak against, but supplements findings of earlier studies, as Lehmann, Huis in't Veld and Fingerhoets (2013) found that higher levels of anthropomorphism lead to improving treatment of dogs. As the results on trust in the brand and product shown in the advertisements already pointed out, participants were not sure about the credibility of claims made. Thus, it is likely that this doubt got in the way of higher purchase intentions.

5.2 Theoretical and practical implications

Findings of the current study both impact existing literature on marketing dog food and present practical implications for marketers. As per theoretical implications, the current study helped to expand the range of already existing solutions against the increasing demand of pet owners on worldwide meat production by introducing an alternative to governmental regulations towards more sustainable pet food diets. Previous research depended on governmental interference in the form of new legislations and education on the environmental risks to decrease consumer demands for meat inclusive pet food diets (Donfrancesco, Koppel, Swaney-Stueve and Chambers, 2014). This study took a different perspective and investigated a possible way to increase consumer demands for more sustainable pet food dietary alternatives through brand-specific claims in online advertisements. The study also investigated the possible influence of trust and social norms on purchase intentions. Findings show that brand-specific claims indeed have an impact on purchase intentions, with health claims being the most effective claims. The combination of marketing and communication has not been studied before with a focus on sustainability and the pet food industry. Thus, the current study is adding scientific insights with a new approach. Given the importance of social norms on human dietary changes, it was necessary to include investigation of the influence of social norms on purchase intentions in the current study. Previous research focused on the influence of social norms on purchase intentions towards non-edible products, found that social norms influence more than 40% of all clothing and cosmetical purchases Forbes (2013). The current study was interested in the influence of social norms on pet food purchases. The findings contribute to earlier literature on purchase intentions as it adds a new range of products.

On terms of practical implications, marketers and communication experts can use the current findings to optimize their online advertising strategies to more effectively market sustainable dog food products and brands. The findings provide insights into the use of certain brand-specific claims which can be deployed to market sustainable dog food products and brands. Marketers can use the findings to determine which claims would be most effective to use in their online content per target group and use this to increase consumer demands towards more sustainable products. Furthermore, the findings can be used as guidelines to understand consumer purchase intentions amongst different types of dog owners.

This research focused on the pet food industry for dog food and the findings are based on an experiment using a fictitious dog food brand and product. Therefore, the findings would be most useful for marketers working in dog food producing companies or pet stores.

5.3 Limitations

The findings of this research contribute to already existing literature regarding sustainability and the pet food industry and the use of online advertisements. Supplementing other studies, this research yields new insights into the influence of brand-specific claims on purchase intentions regardless of a brand's or product's qualities. However, as all studies, this research has specific limitations which one needs to keep in mind before making use of the provided conclusions.

First, this survey did not include a measurement of participants level of English. Neither did it ask if participants are comfortable with the use of the English language. Thus, it is uncertain if there were participants (and how many) who did not understand each question fully. Making it likely that at least some of the answers in the data set are not true representations of participant's real-life choices. Even though potential participants were informed that the questionnaire was in English at survey distribution. The researcher cannot check if they read this notification or measure the extent to which participants understood all questions. This could have resulted in faulty answers impacting the studies reliability.

Second, according to neuromarketing 95% of all human actions and decisions are made unconsciously (Krupka & Chroson, 2016). Krupka and Chroson state that a survey makes participants conscious about being tested. It is therefore likely that those participants have slightly different attitudes when presented real online advertisements. Therefore, data sets collected through surveys can be representative but only to a certain extent.

Third, the survey has been distributed amongst groups on social media platforms and certain social media followings. This allowed to obtain data from participants who belong in our target group. A diverse sample was gathered including all ages. However, the sample did not obtain an equal distribution of genders. The participants were mostly female and owned family pet dogs. Unequal amounts of types of dog owners do not influence the representativeness of the sample as this portrays the distribution of types of dog owners in the population. The number of females and males is however different from the population. Therefore, the resulting data set is representative but did contain an imbalanced response in gender which could potentially hinder the generalizability of the results.

Lastly, a quantitative method was used for this study and thus human actions such as purchase intentions and trust are quantified. This leads to information and knowledge on “how” and which relations exist between concepts, but it lacks information on human experiences related to those measured concepts and relations. Therefore, quantitative studies are highly unlikely to answer “why” effect occur or did not. The “why” remains an estimation instead of examination. A mixed-method of both quantitative and qualitative research methods would have provided both a “how” and “why” on the phenomena’s studied.

5.4 Directions for future research

Overall, the male-female rate of participants in this study was not equal. A wider distribution may bring more interesting findings for the relationship between brand-specific claims and purchase intentions.

Regarding the research method, a mixed method of both quantitative and qualitative research methods would have provided both a “how” and “why” on the phenomena’s studied providing a deeper understanding of the findings. This would also help minimize the risks self-reporting can bring as mistakes on behalf of the participants cannot be controlled by the researcher through online surveys only. For the current study, we cannot be sure that all participants answered the questions carefully and honestly.

The study included dog owners worldwide. Due to the survey’s distribution on social media platforms, a diverse sample was gathered. There were more consumers from within Western Europe than other world regions. This can be attributed to the following base of social media profiles used for the sample distribution. It could result in interesting findings if the future studies become representative of not only Western Europe.

To improve the quality of the survey a few recommendations can be made. A variable should be included to measure if participants are comfortable with the use of the English language. Third, the current survey included a reasonably high number of variables. This made the survey a bit longer than the average length of surveys nowadays. To ensure participants attention is not lost it is recommended to merge some variables together beforehand as most required to be put into groups for data analysis anyway.

In addition, it could be interesting to test the effect of specific ingredients on purchase intentions. The current study did not provide any information on ingredients in the manipulated advertisements on purpose, to only measure the effect of brand-specific claims.

Focusing future research on the communication of specific ingredients in combination with brand claims would be interesting.

Conclusion

The worldwide demand for raw meat diets for dogs is increasing rapidly and so is the impact of meat production on the environment. This is a problem which requires urgent actions and so more and more pet food producers are investigating sustainable alternatives and opportunities to facilitate a switch towards environmentally friendly production lines.

This study provides an elaborate description of consumer attitudes towards brand-specific claims. Environmentally beneficial and health claims in online advertisements were analysed to understand their impact on purchase intentions. Additionally, this research may serve as a guideline for marketers and communication professionals to optimize their strategy regarding online advertisement contents. Furthermore, it provides theoretical implications as new insights regarding purchase intentions towards pet food and consumer purchase intentions have been generated. However, as recommendations were presented would be followed, future research could elevate the topic to a higher level and provide new insights.

In sum, the current research demonstrated that the communication of health claims leads to higher purchase intentions towards dog food products, regardless of the level of anthropomorphism consumers experience towards dogs. Additionally, social norms on sustainability do not influence purchase intentions. Furthermore, being vegan or not has no significant influence on the effectiveness of brand-specific claims. Thus, it is recommended to use health claims in online advertisements, if the goal is to increase consumer purchase intentions. At last, this research also demonstrated that neither trust nor social norms regarding sustainability can be referred to as mediator or moderator between brand claims and purchase intentions.

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Attachment one: Advertisements

2a: Health claims



The advertisement features the Anybelly logo (a stylized 'A' in a square) at the top left. Below it, the text reads "Scientifically proven health benefits". To the right of this text is a 20 kg bag of Anybelly dog food, which is black and green with a picture of a dog and the text "23% PROTEIN" and "ADULT". On the far right, a small Yorkshire Terrier dog is eating from a red bowl on a red and white checkered tablecloth.

- ✓ Supports a strong immune system
- ✓ Maintains a healthy digestion
- ✓ Delicious taste

B: Environmental claims



The advertisement features the Anybelly logo (a stylized 'A' in a square) at the top left. Below it, the text reads "Scientifically proven environmental benefits". To the right of this text is a 20 kg bag of Anybelly dog food, which is black and green with a picture of a dog and the text "23% PROTEIN" and "ADULT". On the far right, a small Yorkshire Terrier dog is eating from a red bowl on a red and white checkered tablecloth.

- ✓ Reduces the ecological paw print
- ✓ Good for the planet
- ✓ Delicious taste

C: Neutral claims



The advertisement features the Anybelly logo (a stylized 'A' in a square) at the top left. Below it, the text reads "Delicious taste". To the right of this text is a 20 kg bag of Anybelly dog food, which is black and green with a picture of a dog and the text "23% PROTEIN" and "ADULT". On the far right, a small Yorkshire Terrier dog is eating from a red bowl on a red and white checkered tablecloth.

- ✓ Delicious taste

Attachment two: Data collection



Attachment three: Online survey

Dear participant,

Thank you very much for responding to this survey. This survey is a part of the thesis research conducted by a student of the Media & Business Master programme of the Erasmus University Rotterdam. It consists of multiple-choice questions, in which you are asked about your opinions on dogs and dog food. Completing the survey takes approximately 7 minutes. Please be aware that your participation is completely voluntarily. There are no correct or incorrect answers. Data collected from the survey are confidential, anonymous and for research purposes only. If you have any questions, please feel free to contact Priscilla Hoppezak (510220ph@student.eur.nl).

1. We would first like to ask you about whether you currently have a dog. Please select the option(s) that is applicable to you:

- I have a dog as family pet
- I have a sports dog
- I have a show dog
- I don't have a dog
- Other

2. Please indicate the extent to which you agree or disagree with the following statements.

Most people are basically good and kind

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

I am trustful

- Strongly disagree

- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

Advertisements are misleading

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

I am sceptical towards advertisements

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

3. The following questions will focus on your relationship with your dog(s).

Please indicate the extent to which you agree or disagree with the following statements.

I believe that my dog has free will

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree

- Somewhat agree
- Agree
- Strongly agree

I believe that my dog has intentions

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

I believe that my dog experiences emotions

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

I believe that my dog has a mind of its own

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

I believe that my dog can be considerate

- Strongly disagree
- Disagree

- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

I believe that my dog can be thoughtful

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

I believe that my dog can be sympathetic

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

Please carefully look at the advertisement below. We are interested in your opinion about this dog food brand, and we will ask you some questions about it.

*one of the advertisements as seen in attachment number one.

4. Thank you for looking at the advertisement of the dog food brand Anybelly. Please indicate the extent to which you agree or disagree with the following statements.

The advertisement of Anybelly states that it will improve the health of a dog

- Strongly disagree

- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

The advertisement of Anybelly states that it will reduce a dog's ecological paw print

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

5. Please indicate the extent to which you agree or disagree with the following statements.

I believe that the dog food brand Anybelly is...

Sincere

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

Honest

- Strongly disagree
- Disagree
- Somewhat disagree

- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

Trustworthy

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

6. Please indicate the extent to which you agree or disagree with the following statements.

I believe that the dog food brand Anybelly is...

Capable

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

Intelligent

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree

- Agree
- Strongly agree

Skilled

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

7. Please select the answer that represents your opinion best.

Giving food from Anybelly to my dog would be...

- Very bad
- Bad
- Somewhat bad
- Neither bad nor good
- Somewhat good
- Good
- Very good

Giving food from Anybelly to my dog would be...

- Very foolish
- Foolish
- Somewhat foolish
- Neither foolish nor wise
- Somewhat wise
- Wise
- Very wise

Giving food from Anybelly to my dog would be...

- Very harmful

- Harmful
- Somewhat harmful
- Neither harmful nor beneficial
- Somewhat beneficial
- Beneficial
- Very beneficial

Giving food from Anybelly to my dog would be...

- Very unattractive
- Unattractive
- Somewhat unattractive
- Neither unattractive nor attractive
- Somewhat attractive
- Attractive
- Very attractive

8. Please indicate the extent to which you agree or disagree with the following statements

I would be interested in purchasing Anybelly dog food

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

I would be willing to give my dog Anybelly dog food

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree

- Agree
- Strongly agree

I would consider purchasing Anybelly dog food

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

It is likely that I will buy Anybelly dog food

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

9. The following questions focus on your social environment. How important is sustainability to the people around you?

Most of the people who are important to me would disapprove if I made unsustainable purchase decisions

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

The people who are important to me care very much about protecting the environment

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

Most people who are important to me would look down on my if I did not consider sustainability in my purchase decisions

- Strongly disagree
- Disagree
- Somewhat disagree
- Neither agree nor disagree
- Somewhat agree
- Agree
- Strongly agree

You have almost completed the survey! We would now like to ask you some final background questions.

10. Please indicate your frequency of meat and fish consumption

How often do you consume meat?

- Never
- Rarely
- Occasionally
- Sometimes
- Frequently
- Usually
- Always

How often do you consume fish?

- Never
- Rarely
- Occasionally
- Sometimes
- Frequently
- Usually
- Always

11. Please indicate your gender

- Male
- Female
- Other
- Prefer not to say

12. What is your age?

.....

13. Does your dog(s) have any dietary restrictions?

- Yes
- No

14. Do you currently live in Western Europe?

Countries in Western Europe are Austria, Belgium, Czech Republic, France, Germany, Ireland, Liechtenstein, Luxembourg, Monaco, the Netherlands, Switzerland, and the United Kingdom

- Yes
- No
- Prefer not to say

Please do not forget to end the survey (bottom right).

Thank you very much for your participation! If you have any questions, please feel free to contact Priscilla Hoppezak at 510220ph@student.eur.nl.